

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

**MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
ASH POND B**

January 31, 2022

Prepared for

Mississippi Power Company
Gulfport, Mississippi

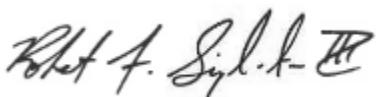
By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

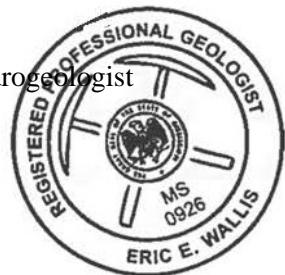
This *2021 Annual Groundwater Monitoring and Corrective Action Report*, Mississippi Power Company – Plant Daniel Ash Pond B has been prepared to comply with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D) under the supervision of a licensed Professional Geologist with Southern Company Services.



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SITE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), this *2021 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document 2021 semi-annual assessment groundwater monitoring activities at the Plant Daniel Ash Pond B (AP-B) and to satisfy the requirements of § 257.90(e). Semi-annual assessment monitoring and associated reporting for Plant Daniel AP-B is performed in accordance with the monitoring requirements § 257.90 through § 257.95.

The CCR unit began the monitoring period in assessment monitoring pursuant to §257.95. Statistically significant increases (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSLs) of Appendix IV parameters were identified in BAW-5 for lithium during the first and second semi-annual monitoring events of 2021. However, an alternate source demonstration (ASD) was prepared for lithium at AP-B. The ASD was completed July 12, 2019 and submitted in the *2019 Annual Groundwater Monitoring and Corrective Action Report*. Therefore, pursuant to §257.95(g)(3)(ii), an assessment of corrective measures is not required, and AP-B remained in assessment monitoring.

Pursuant to 40 CFR 257.90(e)(6), the table titled **Monitoring Period Summary** has been prepared to describe the status of groundwater monitoring and corrective action during the monitoring period for this report.

**Monitoring Period Summary
Plant Daniel - Ash Pond B**

Monitoring Period: January 1 - December 31, 2021

Beginning Status: Assessment

Ending Status: Assessment

STATISTICAL ANALYSIS RESULTS*

Appendix III SSIs

Parameter	Wells
Boron	BAW-4, BAW-5, BAW-7
Calcium	BAW-4, BAW-5
Chloride	BAW-3, BAW-5, BAW-7
Fluoride	None
pH	BAW-4, BAW-5
Sulfate	BAW-5
TDS	BAW-4, BAW-5

Appendix IV SSLs

Parameter	Wells
Lithium	BAW-5

* See the attached report for further details regarding statistical exceedances and alternate source demonstrations.

ASSESSMENT OF CORRECTIVE MEASURES & GROUNDWATER REMEDY

Assessment of Corrective Measures

Site Remains in Assessment Monitoring § 257.95(d)

Groundwater Remedy

Site Remains in Assessment Monitoring § 257.95(d)

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) 257, Subpart D), Southern Company Services (SCS) has prepared this *2021 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities at Mississippi Power Company (MPC) Plant Daniel Ash Pond B (AP-B).

Groundwater monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements of 40 CFR 257.90 through 257.95 of the Federal CCR rule. This report has been prepared to document the 2021 the semi-annual groundwater monitoring events at the AP-B and to satisfy the requirements of § 257.90(e).

2.0 SITE DESCRIPTION

The Site is located within Section 35, Township 5 South, Range 6 West, Sections 37, 10, 15, East half of Section 9, Southwest ¼ of Section 2, Northwest ¼ and south half of Section 11, and the north half and northwest ¼ of the southwest ¼ of Section 14, all of Township 6 South, Range 6 West. The Site is situated immediately northwest of the intersection of Mississippi State Highways 63 and 613, between the Pascagoula River to the west and Highway 63 to the east. The site address is 13201 Highway 63 N, Escatawpa, Mississippi 39562.

AP-B is located to the north of the main plant. **Figure 1, Site Location Map**, depicts the location of Plant Daniel relative to site features and the surrounding area.

2.1 Regional Geology & Hydrogeologic Setting

Jackson County lies in the Pascagoula River Drainage Basin in the Gulf Coastal Plain physiographic province. Topographically, the province is gently rolling to flat with local salt marshes. Rock outcrops are sedimentary in origin and range in age from late Miocene to Recent (Gandl, 1982). A dominant regional structural feature which affects the sediments of Miocene and younger age is the Gulf Coast geosyncline. The sediments dip toward the Gulf of Mexico. Where formations are near the surface, dips are from 15 to 35 feet/mile. Further from the outcrop, dips increase dramatically with depth. Fresh-water aquifers in the Pascagoula area are sand or sand and gravel beds of Miocene age or younger, generally less than 1,000 feet below the surface.

The surface geology of soils near Plant Daniel results from present-day weathering processes dictated by southern Mississippi's semi-tropical climate and the parent geologic materials. The soil profile formed from a wide variety of sediments of recent age, and from Pleistocene terrace deposits. The soils therefore contain sand, silt, clay, gravel and organics.

Studies prepared by SCS, establish five geologic units underlying the immediate Plant Daniel property:

- Unit 1 is a sandy clay aquitard. The unit is discontinuous across the Plant Daniel site and extends from the surface to approximately 32 feet deep in some areas.
- Unit 2 is a sand aquifer, which extends to approximately 70 feet and is considered the uppermost aquifer for groundwater monitoring purposes.
- Unit 3 is a clay aquitard underlying Unit 2 with thicknesses ranging from 2.5 to 9.5 feet at Plant Daniel.
- Unit 4 is a sand and gravel aquifer with a thickness of 34 feet or greater.
- Unit 5 is a clay aquitard.

2.2 Uppermost Aquifer

Two aquifers supply water to the Pascagoula area. These are the Pliocene-age Citronelle and the Miocene Aquifer System, which includes the Graham Ferry Aquifer. Plant Daniel is located in the Citronelle outcrop area.

The Citronelle Aquifers are the shallowest aquifers in the Pascagoula area. Although principally a sand and gravel formation, the Citronelle is characterized by occasional lenses and layers of clay which may cause semi-artesian conditions. Sediments become coarse near the irregular contact with the underlying Pascagoula or Graham Ferry Formation. Also, the Citronelle and overlying coastal deposits are generally considered one hydrogeologic unit. The Citronelle is primarily a water table aquifer with a saturated thickness of about 45 feet. Recharge is primarily by rainfall which moves vertically and down dip to recharge underlying aquifers and to sustain local streams (Wasson, 1978).

For groundwater monitoring purposes, the Unit 2 sand is the uppermost aquifer screened by site monitoring wells.

3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY

Pursuant to § 257.91, MPC installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer (Unit 2). The Professional Engineer (PE)-certified groundwater monitoring system for AP-B is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. As required by § 257.90(e), the following also describes monitoring-related activities performed during the preceding year.

3.1 Groundwater Monitoring System

The groundwater monitoring network is comprised of 6 monitoring wells as presented on **Figure 2, Monitoring Well Location Map**. **Table 1, Monitoring Well Network Summary**, summarizes the monitoring well construction details and design purpose for the AP-B.

Monitoring well locations BAW-1 and BAW-2A serve as upgradient locations for the Ash Pond. Upgradient wells are screened within the same uppermost aquifer as downgradient locations and are representative of background groundwater quality at the site. Monitoring well locations BAW-3 through BAW-7 are utilized as downgradient locations for AP-B. Downgradient locations were determined by water level monitoring and potentiometric surface maps constructed for the site.

3.2 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2021; the network remained the same as in the previous reporting year. Monitoring well-related activities were limited to visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.

3.3 Assessment Monitoring

The AP-B began 2021 in assessment monitoring pursuant to 40 CFR § 257.95(a). The first semi-annual assessment monitoring event was completed by sampling wells for Appendix III and Appendix IV parameters in March 2021, and the semi-annual monitoring event was repeated in October 2021 pursuant to 40 CFR § 257.95(f). Analytical data from the semi-annual monitoring events are included as **Appendix A, Laboratory Analytical and Field Sampling Reports**, in accordance with the requirements of § 257.90(e)(3).

4.0 SAMPLE METHODOLOGY & ANALYSIS

The following describes the methods used to complete groundwater monitoring at AP-B.

4.1 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. Groundwater levels recorded during the monitoring events are summarized in **Table 2, Groundwater Elevations Summary - 2021**. Groundwater levels and top of casing elevations were used to calculate groundwater elevation.

Groundwater elevations and groundwater elevation contour maps presented here do not represent typical natural groundwater flow conditions. As part of AP-B closure a dewatering system was installed and in operation during the 2021 monitoring period. The dewatering system significantly lowered the groundwater level at AP-B to facilitate the excavation of CCR material and pond liner. In all, 22 extraction wells were installed around the perimeter of Ash Pond B. Five wells were active in January and February, 11 wells were active in March, and 17 wells have been active since April 2021.

As shown in **Figure 3, Groundwater Elevations Map – March 15, 2021**, the average groundwater elevation at the pond was approximately -6 feet mean sea level (ft MSL) during the March 2021 sampling event. During the October 2021 sampling event, each of the 17 extraction wells were active, and the average groundwater elevation at AP-B was approximately -13 to -14 ft MSL, as shown on **Figure 4, Groundwater Elevations Map – October 4, 2021**. During both sampling events, groundwater flow conditions were heavily influenced by the extraction system and varied across AP-B.

Groundwater flow velocities at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Based on slug test data collected from AP-B wells, the average hydraulic conductivity at the site is 25 feet per day. The hydraulic gradient was calculated between well pairs shown on **Table 3, Groundwater Flow Velocity Calculations - 2021**. An effective porosity of 0.2 was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (U.S. USEPA, 1996).

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

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

Where:

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

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

i = Horizontal hydraulic gradient

n_e = Effective porosity

Using this equation, groundwater flow velocities are calculated for various areas of the site and are tabulated on **Table 3**.

Groundwater monitoring wells BAW-1 and BAW-5 were used as points for calculating Flow Path A and BAW-3 and BAW-5 were used to calculate Flow Path B.

During the 2021 monitoring period, the groundwater extraction system was active and produced variable groundwater flow conditions that were not indicative of typical groundwater flow at the AP-B. The horizontal hydraulic gradients range from 0.0002 feet per foot (ft/ft) to 0.0024 ft/ft. As presented on **Table 3**, groundwater flow velocity at the site ranges from approximately 0.03 feet per day (ft/day) (or approximately 11.16 feet per year (ft/yr)) to 0.30 ft/day (or approximately 109.23 feet per year) across AP-B. These calculated groundwater flow velocities are not consistent with historical calculations and with expected velocities because of the influence of the groundwater extraction system. However, the groundwater extraction system is scheduled to be decommissioned at the end of January 2022, and groundwater conditions are expected to return to pre-system conditions.

4.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with § 257.93(a). All monitoring wells at the Site are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen (DO)) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

- 0.2 standard units for pH
- 5% for specific conductance
- 0.2 mg/L or 10% for DO > 0.5 mg/l (whichever is greater)
- Turbidity measurements less than 5 nephelometric turbidity unit (NTU)
- Temperature and oxidation reduction potential (ORP) – record only, no stabilization criteria

During purging and sampling a SmarTroll instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol.

4.3 Laboratory Analysis

Laboratory analyses was performed by Eurofins Environmental Testing TestAmerica, Inc. (TAL) of Pittsburgh, Pennsylvania and St. Louis, Missouri. TAL is accredited by National Environmental Laboratory Accreditation Program (NELAP). TestAmerica maintains a NELAP certification for all parameters analyzed for this project. Groundwater analytical data and chain-of-custody records for the monitoring events are presented in **Appendix A**.

4.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 detection samples. Equipment blanks and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in **Appendix A**. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (RL). The estimated value is positively identified but is below lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples are used as measure of laboratory precision. For groundwater analytical data, quality control procedures include calculating the relative percent difference (where field duplicates are collected, the RPD) between the sample and duplicate sample concentrations. This is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2)/2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

RPD is calculated for all detected concentrations above the laboratory RL. Where the RPD is below 20%, the difference is considered acceptable, and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4, Relative Percent Difference Calculations**, provides the relative percent differences for sample and sample duplicates during 2021 sampling events.

RPD was below 20% for constituents analyzed in the first and second semi-annual sampling events.

Therefore, no validation flags or qualifiers were necessary for the results.

5.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR § 257.93 and following the appropriate PE-certified method. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC. (GSC), in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (USEPA, 2009). Results are included in **Appendix B, Statistical Data Evaluation**.

5.1 Statistical Methodology and Test

The Sanitas Groundwater statistical software is 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 EPA regulations. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the EPA Unified Guidance (2009).

5.1.1 Appendix III Evaluation

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. When an initial (or apparent) statistically significant increase or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. If the second sample exceeds its respective background statistical limit, a statistically significant increase (SSI) is identified. If the second sample is below its respective background limit there is no SSI. A summary table of the statistical limits accompanies the prediction limits in **Appendix B**.

5.1.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are compared to GWPS. Unlike the statistical evaluation of Appendix III constituents (where single-sample results are compared to the statistical limit), Appendix IV analysis uses the pooled results from each downgradient well to develop a well-specific Confidence Interval that is compared to the statistical limit. The statistical limit is either the tolerance limit (i.e. background) calculated using the pool of all available upgradient well data (see Chapter 7 of the Unified Guidance), or an applicable groundwater protection standard such as the Maximum Contaminant Level (MCL). Appendix IV background data are screened for outliers and extreme trending patterns that would lead to artificially elevated statistical limits.

Parametric tolerance limits (i.e. Upper Tolerance Limits (UTLs)) were calculated using pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent on the number of background samples. The UTLs were then used as the Groundwater Protection Standards (GWPS).

As described in § 257.95(h)(1)-(3), the GWPS is:

- (1) The MCL established under § 141.62 and 141.66 of this title.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 milligrams per liter (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 were the background level is higher than the MCL or rule-identified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents.

5.2 Statistical Analysis Results

Analytical data from the 2021 semi-annual monitoring events in March and October were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017) and Statistical Background Updates performed by GSC (December 2019). Appendix III statistical analysis was performed 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.

5.2.1 Appendix III Constituents

A review of the Sanitas results presented in **Appendix B** identified the following Appendix III SSIs during the first semi-annual monitoring event:

- BAW-3: Chloride
- BAW-4: Calcium, pH
- BAW-5: Boron, Calcium, Chloride, pH, and Total Dissolved Solids (TDS)
- BAW-7: Boron, Chloride

During the second semi-annual monitoring event, the following SSIs were identified:

- BAW-4: Boron, Calcium, pH, and TDS

- BAW-5: Boron, Calcium, pH, Sulfate and TDS
- BAW-7: Boron

Since the site is performing assessment monitoring, no further action is required regarding these SSIs.

5.2.2 Appendix IV Constituents

Table 5, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS used for statistical comparison. To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard.

Using GWPS established according to 40 CFR §257.95(h), statistical analysis of Appendix IV data identified the following Statistically Significant Level (SSL) of a GWPS during the first and second semi-annual monitoring events at the listed well:

- BAW-5: Lithium

In accordance with §257.95(g), a notification identifying the SSLs for lithium was placed in the facility's Operating Record on November 14, 2018. As discussed below, an alternate source demonstration (ASD) was previously prepared for this SSL and no further action is required.

6.0 ALTERNATE SOURCE DEMONSTRATION

In accordance with 40 CFR § 257.95(g)(3)(ii), an ASD was prepared for lithium at AP-B. The ASD was completed by July 12, 2019 and submitted in the *2019 Annual Groundwater Monitoring and Corrective Action Report*. Therefore, pursuant to §257.95(g)(3)(ii), an assessment of corrective measures is not required, and AP-B will remain in assessment monitoring.

7.0 MONITORING PROGRAM STATUS

In accordance with § 257.94(e) MPC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at AP-B during sampling events conducted in 2021. An ASD was completed for the Appendix IV constituent exceeding the GWPS on July 12, 2019.

Removal of all CCR material in AP-B was completed in September 2021. MPC will continue groundwater monitoring until completion of closure in accordance with CCR rule 257.102(c).

Therefore, in accordance with § 257.95(g)(3)(ii), MPC will continue assessment monitoring.

8.0 CONCLUSIONS & FUTURE ACTIONS

Semi-annual assessment monitoring and associated reporting for Plant Daniel AP-B is performed in accordance with the monitoring requirements § 257.90 through § 257.95. The certified compliance monitoring well network was resampled on a semi-annual basis and were analyzed for Appendix III and IV parameters. Statistical evaluations of the March and October 2021 assessment monitoring data identified lithium SSLs of Appendix IV constituents above the GWPS. An ASD was prepared to address lithium GWPS exceedances at compliance well BAW-5. The ASD was completed by July 12, 2019 in accordance with § 257.95(g)(3)(ii) and submitted in the *2019 Annual Groundwater Monitoring and Corrective Action Report*. Therefore, in accordance with § 257.95(d), MPC will continue assessment monitoring.

The following future actions will be taken or are recommended for the Site:

- The first semi-annual assessment monitoring event is planned for March or April 2022.
- The second semi-annual assessment monitoring event is planned for September or October 2022.
- Submit the 2022 Annual Groundwater and Corrective Report by January 31, 2023.

9.0 REFERENCES

- Gandl, L.A. "Characterization of Aquifers Designated as Potential Drinking Water Sources in Mississippi," Water Resources Investigation Open-File Report 81-550, Mississippi Department of Natural Resources, Bureau of Pollution Control. 1982. 90 pp.
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.
- USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule.* [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.
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- USEPA. 2017. National Functional Guidelines for Inorganic Superfund Methods Data Review. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.
- Wasson, B.E., 1978, Availability of additional ground-water supplies in the Pascagoula area, Mississippi: Mississippi Research and Development Center Bulletin, 32 p.

Tables

Table 1.
Monitoring Well Network Summary

Well ID	Purpose	Installation Date	Northing	Easting	Total Hole Depth (feet)	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Top of Screen Elevation (feet MSL)	Bottom of Screen Elevation (feet MSL)
BAW-1	Upgradient	7/23/2015	378973.19	1071575.49	57.70	32.24	29.22	-23.18	-28.18
BAW-2	Upgradient	7/23/2015	378234.35	1071589.35	62.70	42.43	39.70	-11.80	-21.80
BAW-2A	Upgradient	3/19/2018	378214.26	1071589.08	65.00	41.15	38.22	-15.28	-25.28
BAW-3	Downgradient	7/23/2015	377405.45	1071551.84	65.50	40.62	37.60	-16.70	-26.70
BAW-4	Downgradient	7/23/2015	377377.67	1071040.27	67.10	37.05	34.12	-21.78	-31.78
BAW-5	Downgradient	7/23/2015	377496.76	1070602.22	66.60	39.93	37.41	-18.89	-28.89
BAW-7	Downgradient	7/23/2015	378708.69	1071263.91	60.30	35.05	32.19	-18.01	-28.01
PZ-8	Piezometer	3/14/2018	377423.77	1070652.62	65.50	40.05	37.26	-17.74	-27.74
PZ-9	Piezometer	3/15/2018	377385.47	1070625.84	60.00	39.32	36.50	-13.00	-23.00

Notes:

1. BAW-2 was replaced by BAW-2A due to well damage.
2. Northing and Easting are referenced to MS SPCS (NAD 83) East Zone U.S. Survey Feet (2301).
3. Elevations shown are referenced Mean Sea Level (MSL) to NAVD 88 (G12) U.S. Survey Feet.
4. MSL refers to Mean Sea Level.

Table 2.
Groundwater Elevations Summary - 2021

Well ID	Top of Casing Elevation (feet MSL)	Groundwater Elevations (feet MSL)	
		March 15, 2021	October 4, 2021
BAW-1	32.24	-3.73	-10.76
BAW-2A	41.15	-6.28	-14.42
BAW-3	40.62	-4.18	-13.48
BAW-4	37.05	-7.30	-13.17
BAW-5	39.93	-6.29	-11.19
BAW-7	35.05	-6.25	-13.90
PZ-8	40.05	-8.20	-13.20
PZ-9	39.32	-7.36	-12.08

Notes:

1. MSL refers to Mean Sea Level

Table 3.
Groundwater Flow Velocity Calculations - 2021

Flow Path A								
	BAW-1	BAW-5	Distance	Hydraulic Gradient	Hydraulic Conductivity	Assumed Effective Porosity (ne)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K			
March 15, 2021	-3.73	-6.29	1764	0.0015	25.09	0.2	0.18	66.45
October 4, 2021	-10.76	-11.19	1764	0.0002	25.09	0.2	0.03	11.16

Flow Path B								
	BAW-3	BAW-5	Distance	Hydraulic Gradient	Hydraulic Conductivity	Assumed Effective Porosity (ne)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K			
March 15, 2021	-4.18	-6.29	960	0.0022	25.09	0.2	0.28	100.64
October 4, 2021	-13.48	-11.19	960	0.0024	25.09	0.2	0.30	109.23

Notes:

ft=feet

ft/d = feet/day

ft/ft = feet per foot

ft/yr = feet per year

Table 4.
Relative Percent Difference Calculations

1st Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BAW-1	DUP-01	
Calcium	mg/L	0.965	0.975	1.0
Chloride	mg/L	5.92	5.67	4.3
Sulfate	mg/L	1.49	1.48	0.7
TDS	mg/L	24.0	26.0	8.0
Barium	mg/L	0.0347	0.0350	0.9
Cobalt	mg/L	0.000961	0.000995	3.5

2nd Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		PZ-8	DUP-03	
Boron	mg/L	0.629	0.610	3.1
Calcium	mg/L	15.6	15.1	3.3
Chloride	mg/L	12.3	11.4	7.6
Fluoride	mg/L	0.0341	0.0328	3.9
Sulfate	mg/L	21.8	20.1	8.1
TDS	mg/L	112	117	4.4
Arsenic	mg/L	0.00401	0.00369	8.3
Barium	mg/L	0.0484	0.0460	5.1
Cobalt	mg/L	0.000768	0.000782	1.8
Lithium	mg/L	0.0533	0.0522	2.1
Molybdenum	mg/L	0.00347	0.00328	5.6

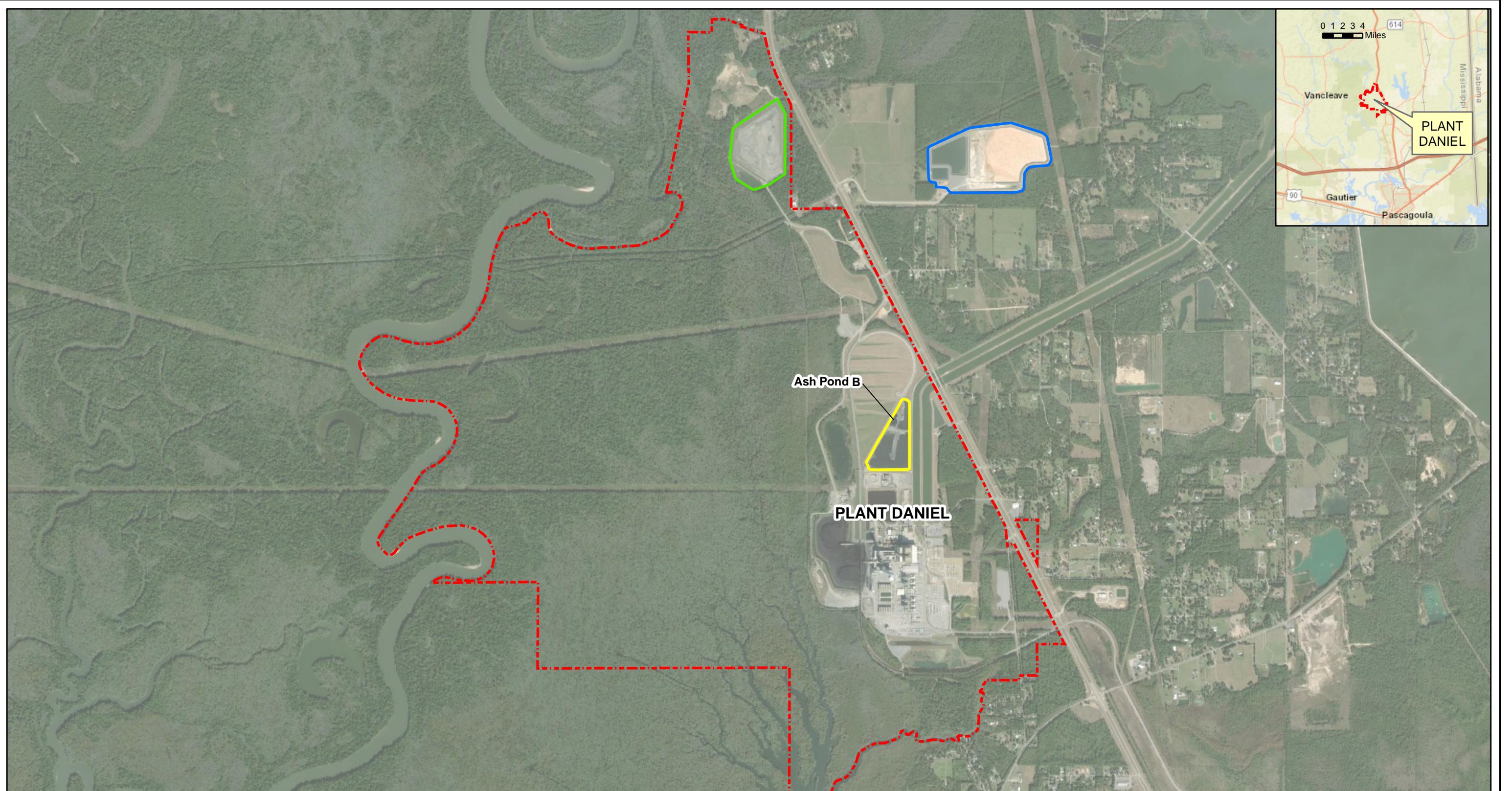
Table 5.
Summary of Background Levels and Groundwater Protection Standards

Analyte	Units	Background	Rule-Identified GWPS
Antimony	mg/L	0.002	0.006
Arsenic	mg/L	0.001	0.01
Barium	mg/L	0.041	2
Beryllium	mg/L	0.0025	0.004
Cadmium	mg/L	0.0025	0.005
Chromium	mg/L	0.0029	0.1
Cobalt	mg/L	0.0013	0.006
Combined Radium-226/228	pCi/L	2.5	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.001	0.015
Lithium	mg/L	0.0051	0.04
Mercury	mg/L	0.0002	0.002
Molybdenum	mg/L	0.015	0.1
Selenium	mg/L	0.005	0.05
Thallium	mg/L	0.001	0.002

Note:

1. Where 2 numbers are present, they denote the different background levels and background-derived GWPS for each of the 2 semi-annual monitoring events in the order that they were determined.
2. If background is less than the rule-identified GWPS; therefore, the rule-identified GWPS were used for statistical analysis.

Figures



Legend

- [Green Box] North Ash Management Unit (NAMU) Boundary
- [Blue Box] Gypsum Storage Area (GSA) Boundary
- [Yellow Box] Ash Pond B Boundary
- [Red Dashed Box] Property Boundary (Approximate)



0 1,000 2,000 4,000 6,000 8,000
Feet

SCALE 1:24000
DATE 12/28/2020
DRAWN BY KAR
CHECKED BY LMP

DRAWING TITLE
**SITE LOCATION MAP
PLANT DANIEL ASH POND B**
FIGURE NO
FIGURE 1
Southern Company



Legend

- Monitoring Well Location
- Ash Pond B Boundary
- Property Boundary (Approximate)



0 250 500 1,000 Feet

SCALE 1:3000
DATE 12/28/2020
DRAWN BY KAR
CHECKED BY LMP

DRAWING TITLE
**WELL LOCATION MAP
PLANT DANIEL ASH POND B**

FIGURE NO
FIGURE 2

 Southern Company



Legend

- Monitoring Well Location
- ▲ Dewatering Well
- Ash Pond B Boundary
- Property Boundary (Approximate)

BAW-1 Well Name
-3.73 Groundwater Elevation (ft NAVD88)



0 250 500 1,000 Feet

Note: ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.

SCALE 1:3000

DATE 1/7/2022

DRAWN BY KWR

CHECKED BY RTS

DRAWING TITLE
GROUNDWATER ELEVATIONS MAP
MARCH 15, 2021
PLANT DANIEL ASH POND B

FIGURE NO

FIGURE 3

Southern Company



Legend

- Monitoring Well Location
- ▲ Dewatering Well
- Ash Pond B Boundary
- Property Boundary (Approximate)

BAW-1 Well Name
-10.76 Groundwater Elevation (ft NAVD88)



0 250 500 1,000 Feet

Note: ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.

SCALE 1:3000

DATE 1/7/2022

DRAWN BY KWR

CHECKED BY RTS

DRAWING TITLE
**GROUNDWATER ELEVATIONS MAP
OCTOBER 4, 2021
PLANT DANIEL ASH POND B**

FIGURE NO
FIGURE 4

Southern Company

Appendix A

1st

Semi-Annual

Monitoring Event



Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-118794-1

Client Project/Site: Plant Daniel Ash Pond B

For:

Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Lauren Parker

Authorized for release by:

4/5/2021 4:48:08 PM

Shali Brown, Project Manager II
(615)301-5031

Shali.Brown@Eurofinset.com

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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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QC Association Summary	11
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Case Narrative

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Job ID: 180-118794-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-118794-1

Comments

No additional comments.

Receipt

The samples were received on 3/19/2021 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1° C.

Receipt Exceptions

The following samples were listed on the Chain of Custody (COC); however, no samples were received: BAW-1 (180-118794-1), BAW-2A (180-118794-2), BAW-3 (180-118794-3), BAW-7 (180-118794-6) and DUP-01 (180-118794-9). Samples were eventually received on 03/25/2021 above 6 degrees C. Client was contacted and will recollect these samples.

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.

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 Daniel Ash Pond B

Job ID: 180-118794-1

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: Plant Daniel Ash Pond B

Job ID: 180-118794-1

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	04-04-22
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.

Sample Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID	
180-118794-4	BAW-4	Water	03/17/21 09:50	03/19/21 08:45		1
180-118794-5	BAW-5	Water	03/17/21 09:00	03/19/21 08:45		2
180-118794-7	BAW-8	Water	03/17/21 08:05	03/19/21 08:45		3
180-118794-8	BAW-9	Water	03/17/21 07:15	03/19/21 08:45		4
180-118794-10	FB-01	Water	03/17/21 07:10	03/19/21 08:45		5
180-118794-11	EB-01	Water	03/17/21 07:30	03/19/21 08:45		6

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

Protocol References:

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 Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: BAW-4

Date Collected: 03/17/21 09:50

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	351162	03/30/21 09:44	SAT	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	351407	03/31/21 12:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351633	04/01/21 16:31	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	351756	04/02/21 17:52	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			351949	04/05/21 11:56	KHM	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350652	03/24/21 19:32	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-5

Date Collected: 03/17/21 09:00

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	351162	03/30/21 18:23	SAT	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	351407	03/31/21 12:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351633	04/01/21 16:33	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	351756	04/02/21 17:52	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			351949	04/05/21 12:00	KHM	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350652	03/24/21 19:32	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-8

Date Collected: 03/17/21 08:05

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	351162	03/30/21 18:40	SAT	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	351407	03/31/21 12:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351633	04/01/21 16:36	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	351756	04/02/21 17:52	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			351949	04/05/21 12:01	KHM	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350652	03/24/21 19:32	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: BAW-9

Date Collected: 03/17/21 07:15

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-8

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	EPA 9056A		1	1 mL	1.0 mL	351162	03/30/21 17:11	SAT	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	351407	03/31/21 12:36	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351633	04/01/21 16:39	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	351756	04/02/21 17:52	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			351949	04/05/21 12:02	KHM	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350652	03/24/21 19:32	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FB-01

Date Collected: 03/17/21 07:10

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-10

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 9056A		1	1 mL	1.0 mL	351162	03/30/21 16:17	SAT	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	351550	04/01/21 11:27	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351772	04/02/21 12:18	RSK	TAL PIT
		Instrument ID: DORY								
Total Recoverable	Prep	3005A			50 mL	50 mL	351550	04/01/21 11:27	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351914	04/03/21 13:18	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	351756	04/02/21 17:52	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			351949	04/05/21 12:03	KHM	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350650	03/24/21 19:24	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EB-01

Date Collected: 03/17/21 07:30

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	351162	03/30/21 16:35	SAT	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	351550	04/01/21 11:27	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351772	04/02/21 12:14	RSK	TAL PIT
		Instrument ID: DORY								
Total Recoverable	Prep	3005A			50 mL	50 mL	351550	04/01/21 11:27	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351914	04/03/21 13:15	RSK	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	351756	04/02/21 17:52	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			351949	04/05/21 12:04	KHM	TAL PIT
		Instrument ID: HGY								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: EB-01

Lab Sample ID: 180-118794-11

Date Collected: 03/17/21 07:30

Matrix: Water

Date Received: 03/19/21 08:45

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	350650	03/24/21 19:24	KMM	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

KHM = Kyle Mucroski

TJO = Tyler Oliver

Batch Type: Analysis

KHM = Kyle Mucroski

KMM = Kendric Moore

RJR = Ron Rosenbaum

RSK = Robert Kurtz

SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: BAW-4

Date Collected: 03/17/21 09:50
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-4

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.55		1.00	0.713	mg/L			03/30/21 09:44	1
Fluoride	0.0544 J		0.100	0.0260	mg/L			03/30/21 09:44	1
Sulfate	4.35		1.00	0.756	mg/L			03/30/21 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			03/31/21 12:36	1
Arsenic	0.000454 J		0.00100	0.000313	mg/L			03/31/21 12:36	1
Barium	0.0224		0.0100	0.00160	mg/L			03/31/21 12:36	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			03/31/21 12:36	1
Boron	0.0673 J		0.0800	0.0386	mg/L			03/31/21 12:36	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/31/21 12:36	1
Calcium	6.69		0.500	0.127	mg/L			03/31/21 12:36	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/31/21 12:36	1
Cobalt	0.00208		0.000500	0.000134	mg/L			03/31/21 12:36	1
Lead	0.000153 J		0.00100	0.000128	mg/L			03/31/21 12:36	1
Lithium	0.0174		0.00500	0.00339	mg/L			03/31/21 12:36	1
Molybdenum	0.00320 J		0.00500	0.000610	mg/L			03/31/21 12:36	1
Selenium	<0.00151		0.00500	0.00151	mg/L			03/31/21 12:36	1
Thallium	<0.000148		0.00100	0.000148	mg/L			03/31/21 12:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			04/02/21 17:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44.0		10.0	10.0	mg/L			03/24/21 19:32	1

Client Sample ID: BAW-5

Date Collected: 03/17/21 09:00
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-5

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.60		1.00	0.713	mg/L			03/30/21 18:23	1
Fluoride	0.0575 J		0.100	0.0260	mg/L			03/30/21 18:23	1
Sulfate	4.07		1.00	0.756	mg/L			03/30/21 18:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			03/31/21 12:36	1
Arsenic	0.00385		0.00100	0.000313	mg/L			03/31/21 12:36	1
Barium	0.0382		0.0100	0.00160	mg/L			03/31/21 12:36	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			03/31/21 12:36	1
Boron	0.200		0.0800	0.0386	mg/L			03/31/21 12:36	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/31/21 12:36	1
Calcium	15.3		0.500	0.127	mg/L			03/31/21 12:36	1
Chromium	<0.00153		0.00200	0.00153	mg/L			03/31/21 12:36	1
Cobalt	<0.000134		0.000500	0.000134	mg/L			03/31/21 12:36	1
Lead	<0.000128		0.00100	0.000128	mg/L			03/31/21 12:36	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: BAW-5

Lab Sample ID: 180-118794-5

Matrix: Water

Date Collected: 03/17/21 09:00

Date Received: 03/19/21 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.120		0.00500	0.00339	mg/L		03/31/21 12:36	04/01/21 16:33	1
Molybdenum	0.00328 J		0.00500	0.000610	mg/L		03/31/21 12:36	04/01/21 16:33	1
Selenium	<0.00151		0.00500	0.00151	mg/L		03/31/21 12:36	04/01/21 16:33	1
Thallium	<0.000148		0.00100	0.000148	mg/L		03/31/21 12:36	04/01/21 16:33	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/02/21 17:52	04/05/21 12:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	79.0		10.0	10.0	mg/L		03/24/21 19:32		1

Client Sample ID: BAW-8

Lab Sample ID: 180-118794-7

Matrix: Water

Date Collected: 03/17/21 08:05

Date Received: 03/19/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.94		1.00	0.713	mg/L			03/30/21 18:40	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/30/21 18:40	1
Sulfate	9.38		1.00	0.756	mg/L			03/30/21 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		03/31/21 12:36	04/01/21 16:36	1
Arsenic	0.000710 J		0.00100	0.000313	mg/L		03/31/21 12:36	04/01/21 16:36	1
Barium	0.0275		0.0100	0.00160	mg/L		03/31/21 12:36	04/01/21 16:36	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		03/31/21 12:36	04/01/21 16:36	1
Boron	0.336		0.0800	0.0386	mg/L		03/31/21 12:36	04/01/21 16:36	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		03/31/21 12:36	04/01/21 16:36	1
Calcium	12.1		0.500	0.127	mg/L		03/31/21 12:36	04/01/21 16:36	1
Chromium	0.00229		0.00200	0.00153	mg/L		03/31/21 12:36	04/01/21 16:36	1
Cobalt	0.00123		0.000500	0.000134	mg/L		03/31/21 12:36	04/01/21 16:36	1
Lead	<0.000128		0.00100	0.000128	mg/L		03/31/21 12:36	04/01/21 16:36	1
Lithium	0.113		0.00500	0.00339	mg/L		03/31/21 12:36	04/01/21 16:36	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		03/31/21 12:36	04/01/21 16:36	1
Selenium	<0.00151		0.00500	0.00151	mg/L		03/31/21 12:36	04/01/21 16:36	1
Thallium	<0.000148		0.00100	0.000148	mg/L		03/31/21 12:36	04/01/21 16:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/02/21 17:52	04/05/21 12:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	69.0		10.0	10.0	mg/L			03/24/21 19:32	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: BAW-9

Lab Sample ID: 180-118794-8

Matrix: Water

Date Collected: 03/17/21 07:15
Date Received: 03/19/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.00		1.00	0.713	mg/L			03/30/21 17:11	1
Fluoride	0.0520 J		0.100	0.0260	mg/L			03/30/21 17:11	1
Sulfate	6.22		1.00	0.756	mg/L			03/30/21 17:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			03/31/21 12:36	1
Arsenic	0.000350 J		0.00100	0.000313	mg/L			03/31/21 12:36	1
Barium	0.0424		0.0100	0.00160	mg/L			03/31/21 12:36	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			03/31/21 12:36	1
Boron	0.225		0.0800	0.0386	mg/L			03/31/21 12:36	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			03/31/21 12:36	1
Calcium	13.5		0.500	0.127	mg/L			03/31/21 12:36	1
Chromium	0.00303		0.00200	0.00153	mg/L			03/31/21 12:36	1
Cobalt	0.000355 J		0.000500	0.000134	mg/L			03/31/21 12:36	1
Lead	<0.000128		0.00100	0.000128	mg/L			03/31/21 12:36	1
Lithium	0.133		0.00500	0.00339	mg/L			03/31/21 12:36	1
Molybdenum	0.00126 J		0.00500	0.000610	mg/L			03/31/21 12:36	1
Selenium	<0.00151		0.00500	0.00151	mg/L			03/31/21 12:36	1
Thallium	<0.000148		0.00100	0.000148	mg/L			03/31/21 12:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			04/02/21 17:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60.0		10.0	10.0	mg/L			03/24/21 19:32	1

Client Sample ID: FB-01

Lab Sample ID: 180-118794-10

Matrix: Water

Date Collected: 03/17/21 07:10
Date Received: 03/19/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			03/30/21 16:17	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/30/21 16:17	1
Sulfate	<0.756		1.00	0.756	mg/L			03/30/21 16:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			04/01/21 11:27	1
Arsenic	<0.000313		0.00100	0.000313	mg/L			04/01/21 11:27	1
Barium	<0.00160		0.0100	0.00160	mg/L			04/01/21 11:27	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			04/01/21 11:27	1
Boron	<0.0386		0.0800	0.0386	mg/L			04/01/21 11:27	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			04/01/21 11:27	1
Calcium	<0.127		0.500	0.127	mg/L			04/01/21 11:27	1
Chromium	<0.00153		0.00200	0.00153	mg/L			04/01/21 11:27	1
Cobalt	<0.000134		0.000500	0.000134	mg/L			04/01/21 11:27	1
Lead	<0.000128		0.00100	0.000128	mg/L			04/01/21 11:27	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Client Sample ID: FB-01

Lab Sample ID: 180-118794-10

Matrix: Water

Date Collected: 03/17/21 07:10

Date Received: 03/19/21 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500	0.00339	mg/L		04/01/21 11:27	04/02/21 12:18	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		04/01/21 11:27	04/02/21 12:18	1
Selenium	<0.00151		0.00500	0.00151	mg/L		04/01/21 11:27	04/02/21 12:18	1
Thallium	<0.000148		0.00100	0.000148	mg/L		04/01/21 11:27	04/02/21 12:18	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/02/21 17:52	04/05/21 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L		03/24/21 19:24		1

Client Sample ID: EB-01

Lab Sample ID: 180-118794-11

Matrix: Water

Date Collected: 03/17/21 07:30

Date Received: 03/19/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			03/30/21 16:35	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/30/21 16:35	1
Sulfate	<0.756		1.00	0.756	mg/L			03/30/21 16:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		04/01/21 11:27	04/02/21 12:14	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		04/01/21 11:27	04/02/21 12:14	1
Barium	<0.00160		0.0100	0.00160	mg/L		04/01/21 11:27	04/02/21 12:14	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		04/01/21 11:27	04/02/21 12:14	1
Boron	<0.0386		0.0800	0.0386	mg/L		04/01/21 11:27	04/03/21 13:15	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		04/01/21 11:27	04/02/21 12:14	1
Calcium	<0.127		0.500	0.127	mg/L		04/01/21 11:27	04/02/21 12:14	1
Chromium	<0.00153		0.00200	0.00153	mg/L		04/01/21 11:27	04/02/21 12:14	1
Cobalt	<0.000134		0.000500	0.000134	mg/L		04/01/21 11:27	04/02/21 12:14	1
Lead	<0.000128		0.00100	0.000128	mg/L		04/01/21 11:27	04/02/21 12:14	1
Lithium	<0.00339		0.00500	0.00339	mg/L		04/01/21 11:27	04/02/21 12:14	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		04/01/21 11:27	04/02/21 12:14	1
Selenium	<0.00151		0.00500	0.00151	mg/L		04/01/21 11:27	04/02/21 12:14	1
Thallium	<0.000148		0.00100	0.000148	mg/L		04/01/21 11:27	04/02/21 12:14	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/02/21 17:52	04/05/21 12:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			03/24/21 19:24	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-351162/6

Matrix: Water

Analysis Batch: 351162

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			03/30/21 09:09	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/30/21 09:09	1
Sulfate	<0.756		1.00	0.756	mg/L			03/30/21 09:09	1

Lab Sample ID: LCS 180-351162/5

Matrix: Water

Analysis Batch: 351162

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	53.75		mg/L		107	80 - 120
Fluoride		2.50	2.601		mg/L		104	80 - 120
Sulfate		50.0	54.00		mg/L		108	80 - 120

Lab Sample ID: 180-118794-4 MS

Matrix: Water

Analysis Batch: 351162

Client Sample ID: BAW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.55		50.0	59.31		mg/L		104	80 - 120
Fluoride	0.0544	J	2.50	2.583		mg/L		101	80 - 120
Sulfate	4.35		50.0	55.70		mg/L		103	80 - 120

Lab Sample ID: 180-118794-4 MSD

Matrix: Water

Analysis Batch: 351162

Client Sample ID: BAW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	7.55		50.0	57.24		mg/L		99	80 - 120	4	15
Fluoride	0.0544	J	2.50	2.488		mg/L		97	80 - 120	4	15
Sulfate	4.35		50.0	53.57		mg/L		98	80 - 120	4	15

Lab Sample ID: 180-118794-8 MS

Matrix: Water

Analysis Batch: 351162

Client Sample ID: BAW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.00		50.0	57.49		mg/L		97	80 - 120
Fluoride	0.0520	J	2.50	2.441		mg/L		96	80 - 120
Sulfate	6.22		50.0	54.55		mg/L		97	80 - 120

Lab Sample ID: 180-118794-8 MSD

Matrix: Water

Analysis Batch: 351162

Client Sample ID: BAW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	9.00		50.0	58.40		mg/L		99	80 - 120	2	15
Fluoride	0.0520	J	2.50	2.480		mg/L		97	80 - 120	2	15
Sulfate	6.22		50.0	55.47		mg/L		98	80 - 120	2	15

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

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

Lab Sample ID: MB 180-351407/1-A

Matrix: Water

Analysis Batch: 351633

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 351407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L	03/31/21 12:36	04/01/21 15:18	1	1
Arsenic	<0.000313		0.00100	0.000313	mg/L	03/31/21 12:36	04/01/21 15:18	1	2
Barium	<0.00160		0.0100	0.00160	mg/L	03/31/21 12:36	04/01/21 15:18	1	3
Beryllium	<0.000182		0.00100	0.000182	mg/L	03/31/21 12:36	04/01/21 15:18	1	4
Boron	<0.0386		0.0800	0.0386	mg/L	03/31/21 12:36	04/01/21 15:18	1	5
Cadmium	<0.000217		0.00100	0.000217	mg/L	03/31/21 12:36	04/01/21 15:18	1	6
Calcium	<0.127		0.500	0.127	mg/L	03/31/21 12:36	04/01/21 15:18	1	7
Chromium	<0.00153		0.00200	0.00153	mg/L	03/31/21 12:36	04/01/21 15:18	1	8
Cobalt	<0.000134		0.000500	0.000134	mg/L	03/31/21 12:36	04/01/21 15:18	1	9
Lead	<0.000128		0.00100	0.000128	mg/L	03/31/21 12:36	04/01/21 15:18	1	10
Lithium	<0.00339		0.00500	0.00339	mg/L	03/31/21 12:36	04/01/21 15:18	1	11
Molybdenum	<0.000610		0.00500	0.000610	mg/L	03/31/21 12:36	04/01/21 15:18	1	12
Selenium	<0.00151		0.00500	0.00151	mg/L	03/31/21 12:36	04/01/21 15:18	1	13
Thallium	<0.000148		0.00100	0.000148	mg/L	03/31/21 12:36	04/01/21 15:18	1	14

Lab Sample ID: LCS 180-351407/2-A

Matrix: Water

Analysis Batch: 351633

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 351407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Antimony	0.250	0.2330		mg/L	93	80 - 120		
Arsenic	1.00	0.9764		mg/L	98	80 - 120		
Barium	1.00	0.9919		mg/L	99	80 - 120		
Beryllium	0.500	0.4397		mg/L	88	80 - 120		
Boron	1.25	1.039		mg/L	83	80 - 120		
Cadmium	0.500	0.5023		mg/L	100	80 - 120		
Calcium	25.0	25.90		mg/L	104	80 - 120		
Chromium	0.500	0.4939		mg/L	99	80 - 120		
Cobalt	0.500	0.4973		mg/L	99	80 - 120		
Lead	0.500	0.4884		mg/L	98	80 - 120		
Lithium	0.500	0.4789		mg/L	96	80 - 120		
Molybdenum	0.500	0.5048		mg/L	101	80 - 120		
Selenium	1.00	0.9954		mg/L	100	80 - 120		
Thallium	1.00	1.019		mg/L	102	80 - 120		

Lab Sample ID: MB 180-351550/1-A

Matrix: Water

Analysis Batch: 351772

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 351550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L	04/01/21 11:27	04/02/21 11:31	1	1
Arsenic	<0.000313		0.00100	0.000313	mg/L	04/01/21 11:27	04/02/21 11:31	1	2
Barium	<0.00160		0.0100	0.00160	mg/L	04/01/21 11:27	04/02/21 11:31	1	3
Beryllium	<0.000182		0.00100	0.000182	mg/L	04/01/21 11:27	04/02/21 11:31	1	4
Cadmium	<0.000217		0.00100	0.000217	mg/L	04/01/21 11:27	04/02/21 11:31	1	5
Calcium	<0.127		0.500	0.127	mg/L	04/01/21 11:27	04/02/21 11:31	1	6
Chromium	<0.00153		0.00200	0.00153	mg/L	04/01/21 11:27	04/02/21 11:31	1	7
Cobalt	<0.000134		0.000500	0.000134	mg/L	04/01/21 11:27	04/02/21 11:31	1	8
Lead	<0.000128		0.00100	0.000128	mg/L	04/01/21 11:27	04/02/21 11:31	1	9

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

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

Lab Sample ID: MB 180-351550/1-A

Matrix: Water

Analysis Batch: 351772

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 351550

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500		0.00339	mg/L			04/01/21 11:27	04/02/21 11:31	1
Molybdenum	<0.000610		0.00500		0.000610	mg/L			04/01/21 11:27	04/02/21 11:31	1
Selenium	<0.00151		0.00500		0.00151	mg/L			04/01/21 11:27	04/02/21 11:31	1
Thallium	<0.000148		0.00100		0.000148	mg/L			04/01/21 11:27	04/02/21 11:31	1

Lab Sample ID: MB 180-351550/1-A

Matrix: Water

Analysis Batch: 351914

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 351550

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800		0.0386	mg/L			04/01/21 11:27	04/03/21 13:09	1

Lab Sample ID: LCS 180-351550/2-A

Matrix: Water

Analysis Batch: 351772

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 351550

Analyte	Spike Added	LC	LC	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
		S	C							
Antimony	0.250	0.2300		mg/L			92	80 - 120		
Arsenic	1.00	0.9635		mg/L			96	80 - 120		
Barium	1.00	0.9741		mg/L			97	80 - 120		
Beryllium	0.500	0.4859		mg/L			97	80 - 120		
Cadmium	0.500	0.4883		mg/L			98	80 - 120		
Calcium	25.0	27.38		mg/L			110	80 - 120		
Chromium	0.500	0.4874		mg/L			97	80 - 120		
Cobalt	0.500	0.4834		mg/L			97	80 - 120		
Lead	0.500	0.4782		mg/L			96	80 - 120		
Lithium	0.500	0.4673		mg/L			93	80 - 120		
Molybdenum	0.500	0.4960		mg/L			99	80 - 120		
Selenium	1.00	0.9906		mg/L			99	80 - 120		
Thallium	1.00	1.028		mg/L			103	80 - 120		

Lab Sample ID: LCS 180-351550/2-A

Matrix: Water

Analysis Batch: 351914

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 351550

Analyte	Spk	LC	LC	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	S	C							
Boron	1.25	1.237		mg/L			99	80 - 120		

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-351756/1-A

Matrix: Water

Analysis Batch: 351949

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 351756

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200		0.000130	mg/L			04/02/21 17:52	04/05/21 11:41	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

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

Lab Sample ID: LCS 180-351756/2-A

Matrix: Water

Analysis Batch: 351949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 351756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Mercury	0.00250	0.002711		mg/L	108		80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-350650/2

Matrix: Water

Analysis Batch: 350650

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	<10.0		10.0	10.0	mg/L			03/24/21 19:24	1

Lab Sample ID: LCS 180-350650/1

Matrix: Water

Analysis Batch: 350650

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Dissolved Solids	457	452.0		mg/L	99		80 - 120

Lab Sample ID: MB 180-350652/2

Matrix: Water

Analysis Batch: 350652

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	<10.0		10.0	10.0	mg/L			03/24/21 19:32	1

Lab Sample ID: LCS 180-350652/1

Matrix: Water

Analysis Batch: 350652

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Dissolved Solids	457	452.0		mg/L	99		80 - 120

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

HPLC/IC

Analysis Batch: 351162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total/NA	Water	EPA 9056A	
180-118794-5	BAW-5	Total/NA	Water	EPA 9056A	
180-118794-7	BAW-8	Total/NA	Water	EPA 9056A	
180-118794-8	BAW-9	Total/NA	Water	EPA 9056A	
180-118794-10	FB-01	Total/NA	Water	EPA 9056A	
180-118794-11	EB-01	Total/NA	Water	EPA 9056A	
MB 180-351162/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-351162/5	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-118794-4 MS	BAW-4	Total/NA	Water	EPA 9056A	
180-118794-4 MSD	BAW-4	Total/NA	Water	EPA 9056A	
180-118794-8 MS	BAW-9	Total/NA	Water	EPA 9056A	
180-118794-8 MSD	BAW-9	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 351407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total Recoverable	Water	3005A	
180-118794-5	BAW-5	Total Recoverable	Water	3005A	
180-118794-7	BAW-8	Total Recoverable	Water	3005A	
180-118794-8	BAW-9	Total Recoverable	Water	3005A	
MB 180-351407/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-351407/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 351550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-10	FB-01	Total Recoverable	Water	3005A	
180-118794-11	EB-01	Total Recoverable	Water	3005A	
MB 180-351550/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-351550/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 351633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total Recoverable	Water	EPA 6020B	
180-118794-5	BAW-5	Total Recoverable	Water	EPA 6020B	
180-118794-7	BAW-8	Total Recoverable	Water	EPA 6020B	
180-118794-8	BAW-9	Total Recoverable	Water	EPA 6020B	
MB 180-351407/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	
LCS 180-351407/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	

Prep Batch: 351756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total/NA	Water	7470A	
180-118794-5	BAW-5	Total/NA	Water	7470A	
180-118794-7	BAW-8	Total/NA	Water	7470A	
180-118794-8	BAW-9	Total/NA	Water	7470A	
180-118794-10	FB-01	Total/NA	Water	7470A	
180-118794-11	EB-01	Total/NA	Water	7470A	
MB 180-351756/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-351756/2-A	Lab Control Sample	Total/NA	Water	7470A	

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-1

Metals

Analysis Batch: 351772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-10	FB-01	Total Recoverable	Water	EPA 6020B	351550
180-118794-11	EB-01	Total Recoverable	Water	EPA 6020B	351550
MB 180-351550/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	351550
LCS 180-351550/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	351550

Analysis Batch: 351914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-10	FB-01	Total Recoverable	Water	EPA 6020B	351550
180-118794-11	EB-01	Total Recoverable	Water	EPA 6020B	351550
MB 180-351550/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	351550
LCS 180-351550/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	351550

Analysis Batch: 351949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total/NA	Water	EPA 7470A	351756
180-118794-5	BAW-5	Total/NA	Water	EPA 7470A	351756
180-118794-7	BAW-8	Total/NA	Water	EPA 7470A	351756
180-118794-8	BAW-9	Total/NA	Water	EPA 7470A	351756
180-118794-10	FB-01	Total/NA	Water	EPA 7470A	351756
180-118794-11	EB-01	Total/NA	Water	EPA 7470A	351756
MB 180-351756/1-A	Method Blank	Total/NA	Water	EPA 7470A	351756
LCS 180-351756/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	351756

General Chemistry

Analysis Batch: 350650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-10	FB-01	Total/NA	Water	SM 2540C	
180-118794-11	EB-01	Total/NA	Water	SM 2540C	
MB 180-350650/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-350650/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 350652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total/NA	Water	SM 2540C	
180-118794-5	BAW-5	Total/NA	Water	SM 2540C	
180-118794-7	BAW-8	Total/NA	Water	SM 2540C	
180-118794-8	BAW-9	Total/NA	Water	SM 2540C	
MB 180-350652/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-350652/1	Lab Control Sample	Total/NA	Water	SM 2540C	

244-A-11

Phone (412) 963-7058 Fax (412) 963-2468

Ver: 01/16/2019

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UNITED STATES US

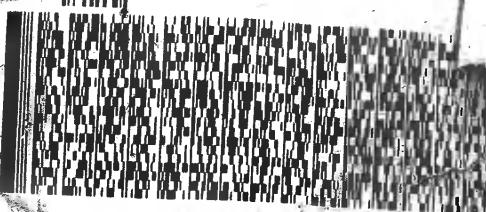
TO SAMPLE RECEIVING
ETA PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058

REF: S180-68885

BMA:



FedEx

TRK#
0221

1516 9328 6513

THU - 18
PRIORITY

SHIP DATE
ACTUAL DATE
CST: 8:53 AM
PA

XH AGCA

Uncorrected temp
Thermometer ID

4.1 °C
74

CF

Initials

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

#296941 03/17 56D3/AC39/FE4A

180-118794 Waybill

FedEx

TRK#
0221

1516 9328 6535

THU - 18 MAR 10:30
PRIORITY OVERNIGHT

15238

PA-US PIT

XH AGCA

Uncorrected temp
Thermometer ID

3.1 °C
74

CF

Initials

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

#296941 03/17 56D3/AC39/FE4A

10:30 A
6535
03.19

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-118794-1

Login Number: 118794

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: 180-118794-1

Login Number: 118794

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 3

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.	False	
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	



Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-118794-2
Client Project/Site: Plant Daniel Ash Pond B

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Lauren Parker

Authorized for release by:
4/18/2021 6:52:19 PM

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

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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 Daniel Ash Pond B

Job ID: 180-118794-2

Job ID: 180-118794-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-118794-2

Comments

No additional comments.

Receipt

The samples were received on 3/19/2021 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1° C and 16.9° C.

Receipt Exceptions

The following samples were listed on the Chain of Custody (COC); however, no samples were received: BAW-1 (180-118794-1), BAW-2A (180-118794-2), BAW-3 (180-118794-3), BAW-7 (180-118794-6) and DUP-01 (180-118794-9). Samples were eventually received on 03/25/2021 above 6 degrees C. Client was contacted and will recollect these samples.

RAD

Methods 903.0, 9315: 9315 prep batch 502958

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. BAW-4 (180-118794-4), BAW-5 (180-118794-5), BAW-8 (180-118794-7), BAW-9 (180-118794-8), FB-01 (180-118794-10), EB-01 (180-118794-11), (LCS 160-502958/1-A), (LCSD 160-502958/2-A) and (MB 160-502958/14-A)

Methods 904.0, 9320: Radium-228 Batch 502959

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. BAW-4 (180-118794-4), BAW-5 (180-118794-5), BAW-8 (180-118794-7), BAW-9 (180-118794-8), FB-01 (180-118794-10), EB-01 (180-118794-11), (LCS 160-502959/1-A), (LCSD 160-502959/2-A) and (MB 160-502959/14-A)

Method PrecSep_0: Radium 228 Prep Batch 160-502959:

Insufficient sample volume was available to perform a sample duplicate for the following sample: BAW-4 (180-118794-4), BAW-5 (180-118794-5), BAW-8 (180-118794-7), BAW-9 (180-118794-8), FB-01 (180-118794-10) and EB-01 (180-118794-11). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-502958:

Insufficient sample volume was available to perform a sample duplicate for the following sample: BAW-4 (180-118794-4), BAW-5 (180-118794-5), BAW-8 (180-118794-7), BAW-9 (180-118794-8), FB-01 (180-118794-10) and EB-01 (180-118794-11). 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: Plant Daniel Ash Pond B

Job ID: 180-118794-2

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.

¤	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 Daniel Ash Pond B

Job ID: 180-118794-2

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
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	T104704193-19-13	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.

Eurofins TestAmerica, Pittsburgh

Sample Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID	
180-118794-4	BAW-4	Water	03/17/21 09:50	03/19/21 08:45		1
180-118794-5	BAW-5	Water	03/17/21 09:00	03/19/21 08:45		2
180-118794-7	BAW-8	Water	03/17/21 08:05	03/19/21 08:45		3
180-118794-8	BAW-9	Water	03/17/21 07:15	03/19/21 08:45		4
180-118794-10	FB-01	Water	03/17/21 07:10	03/19/21 08:45		5
180-118794-11	EB-01	Water	03/17/21 07:30	03/19/21 08:45		6

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

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 Daniel Ash Pond B

Job ID: 180-118794-2

Client Sample ID: BAW-4

Date Collected: 03/17/21 09:50

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.45 mL	1.0 g	502958	03/24/21 13:06	RBR	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			505760	04/15/21 10:50	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.45 mL	1.0 g	502959	03/24/21 11:02	RBR	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			504184	04/02/21 12:47	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			505920	04/17/21 11:45	MLK	TAL SL

Client Sample ID: BAW-5

Date Collected: 03/17/21 09:00

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.26 mL	1.0 g	502958	03/24/21 13:06	RBR	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			505760	04/15/21 10:50	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.26 mL	1.0 g	502959	03/24/21 11:02	RBR	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			504184	04/02/21 12:47	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			505920	04/17/21 11:45	MLK	TAL SL

Client Sample ID: BAW-8

Date Collected: 03/17/21 08:05

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.25 mL	1.0 g	502958	03/24/21 13:06	RBR	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			505760	04/15/21 10:50	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.25 mL	1.0 g	502959	03/24/21 11:02	RBR	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			504184	04/02/21 12:47	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			505920	04/17/21 11:45	MLK	TAL SL

Client Sample ID: BAW-9

Date Collected: 03/17/21 07:15

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.95 mL	1.0 g	502958	03/24/21 13:06	RBR	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			505760	04/15/21 10:50	FLC	TAL SL

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Client Sample ID: BAW-9

Date Collected: 03/17/21 07:15

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.95 mL	1.0 g	502959	03/24/21 11:02	RBR	TAL SL
Total/NA	Analysis	9320		1			504184	04/02/21 12:47	ANW	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			505920	04/17/21 11:45	MLK	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: FB-01

Date Collected: 03/17/21 07:10

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.55 mL	1.0 g	502958	03/24/21 13:06	RBR	TAL SL
Total/NA	Analysis	9315		1			505760	04/15/21 10:51	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			1000.55 mL	1.0 g	502959	03/24/21 11:02	RBR	TAL SL
Total/NA	Analysis	9320		1			504184	04/02/21 12:47	ANW	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			505920	04/17/21 11:45	MLK	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: EB-01

Date Collected: 03/17/21 07:30

Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-11

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			1000.09 mL	1.0 g	502958	03/24/21 13:06	RBR	TAL SL
Total/NA	Analysis	9315		1			505760	04/15/21 10:51	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			1000.09 mL	1.0 g	502959	03/24/21 11:02	RBR	TAL SL
Total/NA	Analysis	9320		1			504184	04/02/21 12:47	ANW	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			505920	04/17/21 11:45	MLK	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

RBR = Rachael Ratcliff

Batch Type: Analysis

ANW = Aamber Woods

FLC = Fernando Cruz

MLK = Micha Korrinhizer

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Client Sample ID: BAW-4

Date Collected: 03/17/21 09:50
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.118		0.0733	0.0740	1.00	0.0959	pCi/L	03/24/21 13:06	04/15/21 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					03/24/21 13:06	04/15/21 10:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.193	U	0.234	0.235	1.00	0.387	pCi/L	03/24/21 11:02	04/02/21 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					03/24/21 11:02	04/02/21 12:47	1
Y Carrier	83.0		40 - 110					03/24/21 11:02	04/02/21 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.312	U	0.245	0.246	5.00	0.387	pCi/L	04/17/21 11:45		1

Client Sample ID: BAW-5

Date Collected: 03/17/21 09:00
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.132		0.0741	0.0750	1.00	0.0905	pCi/L	03/24/21 13:06	04/15/21 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					03/24/21 13:06	04/15/21 10:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.0431	U	0.227	0.227	1.00	0.419	pCi/L	03/24/21 11:02	04/02/21 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					03/24/21 11:02	04/02/21 12:47	1
Y Carrier	81.9		40 - 110					03/24/21 11:02	04/02/21 12:47	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Client Sample ID: BAW-5

Date Collected: 03/17/21 09:00
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-5

Matrix: Water

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.0889	U	0.239	0.239	5.00	0.419	pCi/L		04/17/21 11:45	1

Client Sample ID: BAW-8

Date Collected: 03/17/21 08:05
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0903	U	0.0878	0.0882	1.00	0.139	pCi/L	03/24/21 13:06	04/15/21 10:50	1
Carrier										
Ba Carrier	83.8	Qualifier	Limits					Prepared	Analyzed	Dil Fac
			40 - 110					03/24/21 13:06	04/15/21 10:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.235	U	0.305	0.306	1.00	0.507	pCi/L	03/24/21 11:02	04/02/21 12:47	1
Carrier										
Ba Carrier	83.8	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Y Carrier	82.2		40 - 110					03/24/21 11:02	04/02/21 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.325	U	0.317	0.318	5.00	0.507	pCi/L		04/17/21 11:45	1

Client Sample ID: BAW-9

Date Collected: 03/17/21 07:15
Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.115	U	0.0726	0.0733	1.00	0.0965	pCi/L	03/24/21 13:06	04/15/21 10:50	1
Carrier										
Ba Carrier	85.6	Qualifier	Limits					Prepared	Analyzed	Dil Fac
			40 - 110					03/24/21 13:06	04/15/21 10:50	1

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Client Sample Results

Client: Southern Company
 Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Client Sample ID: BAW-9

Date Collected: 03/17/21 07:15
 Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-8

Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.164	U	0.222	0.223	1.00	0.371	pCi/L	03/24/21 11:02	04/02/21 12:47	1
Carrier										
Ba Carrier	85.6		40 - 110					03/24/21 11:02	04/02/21 12:47	1
Y Carrier	81.9		40 - 110					03/24/21 11:02	04/02/21 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.278	U	0.234	0.235	5.00	0.371	pCi/L	04/17/21 11:45		1

Client Sample ID: FB-01

Date Collected: 03/17/21 07:10
 Date Received: 03/19/21 08:45

Lab Sample ID: 180-118794-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0539	U	0.0626	0.0627	1.00	0.101	pCi/L	03/24/21 13:06	04/15/21 10:51	1
Carrier										
Ba Carrier	89.1		40 - 110					03/24/21 13:06	04/15/21 10:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.285	U	0.228	0.229	1.00	0.357	pCi/L	03/24/21 11:02	04/02/21 12:47	1
Carrier										
Ba Carrier	89.1		40 - 110					03/24/21 11:02	04/02/21 12:47	1
Y Carrier	80.4		40 - 110					03/24/21 11:02	04/02/21 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.338	U	0.236	0.237	5.00	0.357	pCi/L	04/17/21 11:45		1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Client Sample ID: EB-01

Lab Sample ID: 180-118794-11

Date Collected: 03/17/21 07:30

Matrix: Water

Date Received: 03/19/21 08:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0551	U	0.0752	0.0753	1.00	0.127	pCi/L	03/24/21 13:06	04/15/21 10:51	1
<i>Carrier</i>	%Yield	Qualifier	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	75.0		40 - 110					03/24/21 13:06	04/15/21 10:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.0931	U	0.253	0.253	1.00	0.442	pCi/L	03/24/21 11:02	04/02/21 12:47	1
<i>Carrier</i>	%Yield	Qualifier	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	75.0		40 - 110					03/24/21 11:02	04/02/21 12:47	1
Y Carrier	82.6		40 - 110					03/24/21 11:02	04/02/21 12:47	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.148	U	0.264	0.264	5.00	0.442	pCi/L		04/17/21 11:45	1

QC Sample Results

Client: Southern Company

Job ID: 180-118794-2

Project/Site: Plant Daniel Ash Pond B

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-502958/14-A

Matrix: Water

Analysis Batch: 505760

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 502958

Analyte	Result	MB MB U	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01312	U	0.0462	0.0463	1.00	0.106	pCi/L	03/24/21 13:06	04/15/21 10:51	1
Carrier		MB MB						Prepared	Analyzed	Dil Fac
Ba Carrier	76.8	%Yield Qualifier	Limits					03/24/21 13:06	04/15/21 10:51	1
			40 - 110							

Lab Sample ID: LCS 160-502958/1-A

Matrix: Water

Analysis Batch: 505760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 502958

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	Limits	%Rec.
				Uncert. (2σ+/-)						
Radium-226	11.3	11.70		1.20	1.00	0.0956	pCi/L	103	75 - 125	
Carrier		LCS Result	LCS Qual							
Ba Carrier	85.3	%Yield Qualifier	Limits							
			40 - 110							

Lab Sample ID: LCSD 160-502958/2-A

Matrix: Water

Analysis Batch: 505760

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 502958

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	Limits	%Rec.	RER
				Uncert. (2σ+/-)							
Radium-226	11.3	11.45		1.19	1.00	0.112	pCi/L	101	75 - 125	0.10	1
Carrier		LCSD Result	LCSD Qual								
Ba Carrier	81.8	%Yield Qualifier	Limits								
			40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-502959/14-A

Matrix: Water

Analysis Batch: 504215

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 502959

Analyte	Result	MB MB U	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.1710	U	0.229	0.229	1.00	0.449	pCi/L	03/24/21 11:02	04/02/21 12:32	1
Carrier		MB MB						Prepared	Analyzed	Dil Fac
Ba Carrier	76.8	%Yield Qualifier	Limits					03/24/21 11:02	04/02/21 12:32	1
Y Carrier	83.4		40 - 110					03/24/21 11:02	04/02/21 12:32	1

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QC Sample Results

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

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

Lab Sample ID: LCS 160-502959/1-A

Matrix: Water

Analysis Batch: 504184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 502959

Analyte	Spike Added	Total			%Rec.	Limits	
		LCS Result	LCS Qual	Uncert. (2σ+/-)			
Radium-228	7.31	7.254		0.935	1.00	0.463	pCi/L

LCS LCS

Carrier	LCS	LCS	Limits
	%Yield	Qualifier	
Ba Carrier	85.3		40 - 110
Y Carrier	83.4		40 - 110

Lab Sample ID: LCSD 160-502959/2-A

Matrix: Water

Analysis Batch: 504184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 502959

Analyte	Spike Added	Total			%Rec.	Limits	RER	RER Limit
		LCSD Result	LCSD Qual	Uncert. (2σ+/-)				
Radium-228	7.31	8.013		1.03	1.00	0.493	pCi/L	110

LCSD LCSD

Carrier	LCSD	LCSD	Limits
	%Yield	Qualifier	
Ba Carrier	81.8		40 - 110
Y Carrier	80.0		40 - 110

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-118794-2

Rad

Prep Batch: 502958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total/NA	Water	PrecSep-21	1
180-118794-5	BAW-5	Total/NA	Water	PrecSep-21	2
180-118794-7	BAW-8	Total/NA	Water	PrecSep-21	3
180-118794-8	BAW-9	Total/NA	Water	PrecSep-21	4
180-118794-10	FB-01	Total/NA	Water	PrecSep-21	5
180-118794-11	EB-01	Total/NA	Water	PrecSep-21	6
MB 160-502958/14-A	Method Blank	Total/NA	Water	PrecSep-21	7
LCS 160-502958/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	8
LCSD 160-502958/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	9

Prep Batch: 502959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118794-4	BAW-4	Total/NA	Water	PrecSep_0	10
180-118794-5	BAW-5	Total/NA	Water	PrecSep_0	11
180-118794-7	BAW-8	Total/NA	Water	PrecSep_0	12
180-118794-8	BAW-9	Total/NA	Water	PrecSep_0	13
180-118794-10	FB-01	Total/NA	Water	PrecSep_0	
180-118794-11	EB-01	Total/NA	Water	PrecSep_0	
MB 160-502959/14-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-502959/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-502959/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

244-AT17

Phone (412) 963-7058 Fax (412) 963-2468

Ver: 01/16/2019

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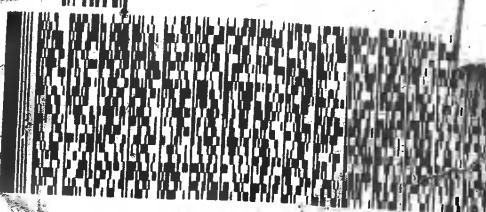
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301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058

REF: S180-68885

BMA:



FedEx

TRK#
0221

1516 9328 6513

THU - 18
PRIORITY

SHIP DATE
ACTUAL DATE
CDD: 899

PA

XH AGCA

Uncorrected temp
Thermometer ID

4.1 °C

14

CF

Initials

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



#296941 03/17 560J3/AC39/FE4A



180-118794 Waybill

FedEx

TRK#
0221

1516 9328 6535

THU - 18 MAR 10:30
PRIORITY OVERNIGHT

15238

PA-US

PIT

XH AGCA

Uncorrected temp
Thermometer ID

3.1 °C

14

CF

Initials

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



#296941 03/17 560J3/AC39/FE4A



Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analysis & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above or for analysts/testmatrix 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 immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Session 1: Data Integration

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify)

卷之三

Empty Kit Relinquished by:

Published by

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Balanced bin

www.silisophia.org

Balanced by

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卷之三

Custody Seals Intact:

Δ Yes Δ No

Shipping Order Form



Environment Testing
America

Shipping Order ID: 69356

Ship To Information
Project Manager:

Company Name: TestAmerica Laboratories, Inc.
Attention: Shipping/Receiving
Address 1: 13715 Rider Trail North
Address 2:
Address 3:
City: Earth City
State: MO
Zip: 63045
Phone #: 314-298-8566
Project Ref:

Ship Via: FedEx Ground
When To Ship: 3/23/2021

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Due On: 3/23/2021 11:59:00PM
Due After: 3/23/2021 12:00:00 AM

Notes to Bottle/Shipping Department

Shipping Method: Standard packing

- Ready to Fill
- Preprinted COC
- Number of COC Copies
- Seals on Bottle
- Seals on Coolers
- Priority

- Return Shipment Labels
- Prepaid Return
- Eurofins TestAmerica, Pittsburgh
- Short Hold Times
- Temperature Control
- Rush

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.
Go to <http://www.testamericainc.com/customer-support/specialized-instructions-for-field-samplers/> for field sampler instructions.

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Shipping Order ID: 69356

4/18/2021

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.
Go to <http://www.testamericainc.com/customer-support/specialized-instructions-for-field-samplers/> for field sampler instructions.

Printed on 3/23/2021 3:04:14PM

Bottle Order Information

Bottle Order:
Bottle Order #:
Request From Client: 3/23/2021
Date Order Posted:
Order Status:
Prepared By:
Deliver By Date:
Lab Project Number:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
Notes to Field Staff:									
<input type="checkbox"/> Scan QR code for field sampler instructions									
<input type="checkbox"/> 									

Order Completion Information

Creator: Matthew Jodis
Filled by:
Sent Date:
Sent Via:
Tracking #:

Ready To Process

3/23/2021 11:59:00PM

Notes to Field Staff:	Preservative	Comment
<input type="checkbox"/> Scan QR code for field sampler instructions		
<input type="checkbox"/> 		

Relinquished By	Company	Date	Time	Received By	Company	Seal #:

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.
Go to <http://www.testamericainc.com/customer-support/specialized-instructions-for-field-samplers/> for field sampler instructions.

Shipping Order ID: 69356

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Printed on 3/23/2021 3:04:14PM

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Bottle Order Information

Bottle Order:
Bottle Order #:
Request From Client: 3/23/2021
Date Order Posted:
Order Status:
Prepared By:
Deliver By Date:
Lab Project Number:

Ready To Process

3/23/2021 11:59:00PM

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
Notes to Field Staff:									
Preservative									



Order Completion Information

Creator: Matthew Jodis
Filled by:
Sent Date:
Sent Via:
Tracking #:

Ready To Process

3/23/2021 11:59:00PM

Notes to Field Staff:	Preservative	Comment
Scan QR code for field sampler instructions		

Relinquished By	Company	Date	Time	Received By	Company	Comments	Seal #
Relinquished By	Company	Date	Time	Received By	Company	Comments	Seal #

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.
Go to <http://www.testamericainc.com/customer-support/specialized-instructions-for-field-samplers/> for field sampler instructions.

Shipping Order ID: 69355

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Printed on 3/23/2021 3:04:03PM

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Page 2 of 3

Shipping Order ID: 69355

Printed on 3/23/2021 3:04:03PM

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.
Go to <http://www.testamericainc.com/customer-support/specialized-instructions-for-field-samplers/> for field sampler instructions.

Shipping Order Form



Shipping Order ID: 69355

Ship To Information

Project Manager:

Company Name: *TestAmerica Laboratories, Inc.*
Attention: *Shipping/Receiving*
Address 1: *13715 Rider Trail North*
Address 2:
Address 3:
City: *Earth City*
State: *MO*
Zip: *63045*
Phone #: *314-298-8566*
Project Ref:

Ship Via: FedEx Ground
When To Ship: 3/23/2021

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Due On: 3/23/2021 11:59:00PM
Due After: 3/23/2021 12:00:00 AM

Notes to Bottle/Shipping Department

Shipping Method: **Standard packing**

- Ready to Fill
- Preprinted COC
- Number of COC Copies
- Seals on Bottle
- Seals on Coolers
- Priority
- Return Shipment Labels
- Prepaid Return
- Short Hold Times
- Temperature Control
- Rush

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-118794-2

Login Number: 118794

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: 180-118794-2

Login Number: 118794

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 3

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.	False	
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: 180-118794-2

Login Number: 118794

List Source: Eurofins TestAmerica, St. Louis

List Number: 2

List Creation: 03/24/21 11:22 AM

Creator: Worthington, Sierra M

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.	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	



Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-119143-1

Client Project/Site: Plant Daniel Ash Pond B

For:

Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Lauren Parker

Authorized for release by:
4/19/2021 10:11:48 AM

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

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The
Expert

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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 Daniel Ash Pond B

Job ID: 180-119143-1

Job ID: 180-119143-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-119143-1

Comments

No additional comments.

Receipt

The samples were received on 3/27/2021 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

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.

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 Daniel Ash Pond B

Job ID: 180-119143-1

Qualifiers

Metals

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

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 Daniel Ash Pond B

Job ID: 180-119143-1

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.

Sample Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119143-1	BAW-1	Water	03/26/21 11:15	03/27/21 09:00	
180-119143-2	BAW-2A	Water	03/26/21 09:11	03/27/21 09:00	
180-119143-3	BAW-3	Water	03/26/21 10:04	03/27/21 09:00	
180-119143-4	BAW-7	Water	03/26/21 10:05	03/27/21 09:00	
180-119143-5	DUP-01	Water	03/26/21 10:15	03/27/21 09:00	

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

Protocol References:

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

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Client Sample ID: BAW-1

Date Collected: 03/26/21 11:15

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-1

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 9056A		1			352030	04/06/21 23:56	SAT	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 09:06	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	353273	04/15/21 17:46	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:07	KHM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351615	04/01/21 18:44	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-2A

Date Collected: 03/26/21 09:11

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			352030	04/07/21 00:43	SAT	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 09:08	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	353273	04/15/21 17:46	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:08	KHM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351615	04/01/21 18:44	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Date Collected: 03/26/21 10:04

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			352030	04/07/21 00:59	SAT	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 09:17	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	353273	04/15/21 17:46	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:11	KHM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351615	04/01/21 18:44	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Client Sample ID: BAW-7

Date Collected: 03/26/21 10:05

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			352030	04/07/21 01:15	SAT	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 09:19	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	353273	04/15/21 17:46	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:12	KHM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351615	04/01/21 18:44	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: DUP-01

Date Collected: 03/26/21 10:15

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			352030	04/07/21 01:31	SAT	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 09:22	RJR	TAL PIT
		Instrument ID: NEMO								
Total/NA	Prep	7470A			50 mL	50 mL	353273	04/15/21 17:46	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:13	KHM	TAL PIT
		Instrument ID: HGZ								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351615	04/01/21 18:44	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

KEM = Kimberly Mahoney

KHM = Kyle Mucroski

Batch Type: Analysis

KHM = Kyle Mucroski

KMM = Kendric Moore

RJR = Ron Rosenbaum

SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Client Sample ID: BAW-1

Lab Sample ID: 180-119143-1

Matrix: Water

Date Collected: 03/26/21 11:15
Date Received: 03/27/21 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.92		1.00	0.713	mg/L			04/06/21 23:56	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/06/21 23:56	1
Sulfate	1.49		1.00	0.756	mg/L			04/06/21 23:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			04/08/21 14:30	1
Arsenic	<0.000313		0.00100	0.000313	mg/L			04/08/21 14:30	1
Barium	0.0347		0.0100	0.00160	mg/L			04/08/21 14:30	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			04/08/21 14:30	1
Boron	<0.0386		0.0800	0.0386	mg/L			04/08/21 14:30	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			04/08/21 14:30	1
Calcium	0.965		0.500	0.127	mg/L			04/08/21 14:30	1
Chromium	<0.00153		0.00200	0.00153	mg/L			04/08/21 14:30	1
Cobalt	0.000961		0.000500	0.000134	mg/L			04/08/21 14:30	1
Lead	<0.000128		0.00100	0.000128	mg/L			04/08/21 14:30	1
Lithium	<0.00339		0.00500	0.00339	mg/L			04/08/21 14:30	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L			04/08/21 14:30	1
Selenium	<0.00151		0.00500	0.00151	mg/L			04/08/21 14:30	1
Thallium	<0.000148		0.00100	0.000148	mg/L			04/08/21 14:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/15/21 17:46	04/17/21 12:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24.0		10.0	10.0	mg/L			04/01/21 18:44	1

Client Sample ID: BAW-2A

Lab Sample ID: 180-119143-2

Matrix: Water

Date Collected: 03/26/21 09:11
Date Received: 03/27/21 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.21		1.00	0.713	mg/L			04/07/21 00:43	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/07/21 00:43	1
Sulfate	2.04		1.00	0.756	mg/L			04/07/21 00:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			04/08/21 14:30	1
Arsenic	<0.000313		0.00100	0.000313	mg/L			04/08/21 14:30	1
Barium	0.0287		0.0100	0.00160	mg/L			04/08/21 14:30	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			04/08/21 14:30	1
Boron	<0.0386		0.0800	0.0386	mg/L			04/08/21 14:30	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			04/08/21 14:30	1
Calcium	0.644		0.500	0.127	mg/L			04/08/21 14:30	1
Chromium	<0.00153		0.00200	0.00153	mg/L			04/08/21 14:30	1
Cobalt	0.000744		0.000500	0.000134	mg/L			04/08/21 14:30	1
Lead	<0.000128		0.00100	0.000128	mg/L			04/08/21 14:30	1

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Client Sample ID: BAW-2A

Lab Sample ID: 180-119143-2

Matrix: Water

Date Collected: 03/26/21 09:11

Date Received: 03/27/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500	0.00339	mg/L		04/08/21 14:30	04/14/21 09:08	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		04/08/21 14:30	04/14/21 09:08	1
Selenium	<0.00151		0.00500	0.00151	mg/L		04/08/21 14:30	04/14/21 09:08	1
Thallium	<0.000148		0.00100	0.000148	mg/L		04/08/21 14:30	04/14/21 09:08	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/15/21 17:46	04/17/21 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24.0		10.0	10.0	mg/L		04/01/21 18:44		1

Client Sample ID: BAW-3

Lab Sample ID: 180-119143-3

Matrix: Water

Date Collected: 03/26/21 10:04

Date Received: 03/27/21 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.32		1.00	0.713	mg/L			04/07/21 00:59	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/07/21 00:59	1
Sulfate	3.25		1.00	0.756	mg/L			04/07/21 00:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		04/08/21 14:30	04/14/21 09:17	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		04/08/21 14:30	04/14/21 09:17	1
Barium	0.0253		0.0100	0.00160	mg/L		04/08/21 14:30	04/14/21 09:17	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		04/08/21 14:30	04/14/21 09:17	1
Boron	<0.0386		0.0800	0.0386	mg/L		04/08/21 14:30	04/14/21 09:17	1
Cadmium	0.000615 J		0.00100	0.000217	mg/L		04/08/21 14:30	04/14/21 09:17	1
Calcium	0.937		0.500	0.127	mg/L		04/08/21 14:30	04/14/21 09:17	1
Chromium	<0.00153		0.00200	0.00153	mg/L		04/08/21 14:30	04/14/21 09:17	1
Cobalt	0.00339		0.000500	0.000134	mg/L		04/08/21 14:30	04/14/21 09:17	1
Lead	0.000145 J		0.00100	0.000128	mg/L		04/08/21 14:30	04/14/21 09:17	1
Lithium	<0.00339		0.00500	0.00339	mg/L		04/08/21 14:30	04/14/21 09:17	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		04/08/21 14:30	04/14/21 09:17	1
Selenium	<0.00151		0.00500	0.00151	mg/L		04/08/21 14:30	04/14/21 09:17	1
Thallium	<0.000148		0.00100	0.000148	mg/L		04/08/21 14:30	04/14/21 09:17	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/15/21 17:46	04/17/21 12:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	37.0		10.0	10.0	mg/L			04/01/21 18:44	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Client Sample ID: BAW-7

Lab Sample ID: 180-119143-4

Matrix: Water

Date Collected: 03/26/21 10:05
Date Received: 03/27/21 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.50		1.00	0.713	mg/L			04/07/21 01:15	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/07/21 01:15	1
Sulfate	2.00		1.00	0.756	mg/L			04/07/21 01:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			04/08/21 14:30	1
Arsenic	<0.000313		0.00100	0.000313	mg/L			04/08/21 14:30	1
Barium	0.0184		0.0100	0.00160	mg/L			04/08/21 14:30	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			04/08/21 14:30	1
Boron	0.647		0.0800	0.0386	mg/L			04/08/21 14:30	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			04/08/21 14:30	1
Calcium	0.848		0.500	0.127	mg/L			04/08/21 14:30	1
Chromium	<0.00153		0.00200	0.00153	mg/L			04/08/21 14:30	1
Cobalt	0.000995		0.000500	0.000134	mg/L			04/08/21 14:30	1
Lead	<0.000128		0.00100	0.000128	mg/L			04/08/21 14:30	1
Lithium	<0.00339		0.00500	0.00339	mg/L			04/08/21 14:30	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L			04/08/21 14:30	1
Selenium	<0.00151		0.00500	0.00151	mg/L			04/08/21 14:30	1
Thallium	<0.000148		0.00100	0.000148	mg/L			04/08/21 14:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000235		0.000200	0.000130	mg/L			04/15/21 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38.0		10.0	10.0	mg/L			04/01/21 18:44	1

Client Sample ID: DUP-01

Lab Sample ID: 180-119143-5

Matrix: Water

Date Collected: 03/26/21 10:15
Date Received: 03/27/21 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.67		1.00	0.713	mg/L			04/07/21 01:31	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/07/21 01:31	1
Sulfate	1.48		1.00	0.756	mg/L			04/07/21 01:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			04/08/21 14:30	1
Arsenic	<0.000313		0.00100	0.000313	mg/L			04/08/21 14:30	1
Barium	0.0350		0.0100	0.00160	mg/L			04/08/21 14:30	1
Beryllium	<0.000182		0.00100	0.000182	mg/L			04/08/21 14:30	1
Boron	<0.0386		0.0800	0.0386	mg/L			04/08/21 14:30	1
Cadmium	<0.000217		0.00100	0.000217	mg/L			04/08/21 14:30	1
Calcium	0.975		0.500	0.127	mg/L			04/08/21 14:30	1
Chromium	<0.00153		0.00200	0.00153	mg/L			04/08/21 14:30	1
Cobalt	0.000995		0.000500	0.000134	mg/L			04/08/21 14:30	1
Lead	<0.000128		0.00100	0.000128	mg/L			04/08/21 14:30	1

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Client Sample Results

Client: Southern Company

Job ID: 180-119143-1

Project/Site: Plant Daniel Ash Pond B

Client Sample ID: DUP-01**Lab Sample ID: 180-119143-5**

Date Collected: 03/26/21 10:15

Matrix: Water

Date Received: 03/27/21 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500	0.00339	mg/L		04/08/21 14:30	04/14/21 09:22	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		04/08/21 14:30	04/14/21 09:22	1
Selenium	<0.00151		0.00500	0.00151	mg/L		04/08/21 14:30	04/14/21 09:22	1
Thallium	<0.000148		0.00100	0.000148	mg/L		04/08/21 14:30	04/14/21 09:22	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/15/21 17:46	04/17/21 12:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26.0		10.0	10.0	mg/L		04/01/21 18:44		1

QC Sample Results

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-352030/55

Matrix: Water

Analysis Batch: 352030

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			04/06/21 23:40	1
Fluoride	<0.0260		0.100	0.0260	mg/L			04/06/21 23:40	1
Sulfate	<0.756		1.00	0.756	mg/L			04/06/21 23:40	1

Lab Sample ID: LCS 180-352030/54

Matrix: Water

Analysis Batch: 352030

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	48.87		mg/L		98	80 - 120
Fluoride		2.50	2.581		mg/L		103	80 - 120
Sulfate		50.0	48.42		mg/L		97	80 - 120

Lab Sample ID: 180-119143-1 MS

Matrix: Water

Analysis Batch: 352030

Client Sample ID: BAW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.92		50.0	53.96		mg/L		96	80 - 120
Fluoride	<0.0260		2.50	2.525		mg/L		101	80 - 120
Sulfate	1.49		50.0	49.04		mg/L		95	80 - 120

Lab Sample ID: 180-119143-1 MSD

Matrix: Water

Analysis Batch: 352030

Client Sample ID: BAW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.92		50.0	57.60		mg/L		103	80 - 120	7	15
Fluoride	<0.0260		2.50	2.707		mg/L		108	80 - 120	7	15
Sulfate	1.49		50.0	52.93		mg/L		103	80 - 120	8	15

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 Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		04/08/21 14:30	04/14/21 07:15	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		04/08/21 14:30	04/14/21 07:15	1
Barium	<0.00160		0.0100	0.00160	mg/L		04/08/21 14:30	04/14/21 07:15	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		04/08/21 14:30	04/14/21 07:15	1
Boron	<0.0386		0.0800	0.0386	mg/L		04/08/21 14:30	04/14/21 07:15	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		04/08/21 14:30	04/14/21 07:15	1
Calcium	<0.127		0.500	0.127	mg/L		04/08/21 14:30	04/14/21 07:15	1
Chromium	<0.00153		0.00200	0.00153	mg/L		04/08/21 14:30	04/14/21 07:15	1
Cobalt	<0.000134		0.000500	0.000134	mg/L		04/08/21 14:30	04/14/21 07:15	1
Lead	<0.000128		0.00100	0.000128	mg/L		04/08/21 14:30	04/14/21 07:15	1
Lithium	<0.00339		0.00500	0.00339	mg/L		04/08/21 14:30	04/14/21 07:15	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		04/08/21 14:30	04/14/21 07:15	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

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

Lab Sample ID: MB 180-352438/1-A

Matrix: Water

Analysis Batch: 353000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00151		0.00500	0.00151	mg/L		04/08/21 14:30	04/14/21 07:15	1
Thallium	<0.000148		0.00100	0.000148	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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
						%Rec.	
Antimony	0.250	0.2462		mg/L		98	80 - 120
Arsenic	1.00	1.027		mg/L		103	80 - 120
Barium	1.00	1.043		mg/L		104	80 - 120
Beryllium	0.500	0.5219		mg/L		104	80 - 120
Boron	1.25	1.319		mg/L		105	80 - 120
Cadmium	0.500	0.5231		mg/L		105	80 - 120
Calcium	25.0	29.61		mg/L		118	80 - 120
Chromium	0.500	0.5232		mg/L		105	80 - 120
Cobalt	0.500	0.5021		mg/L		100	80 - 120
Lead	0.500	0.5199		mg/L		104	80 - 120
Lithium	0.500	0.5263		mg/L		105	80 - 120
Molybdenum	0.500	0.5471		mg/L		109	80 - 120
Selenium	1.00	1.050		mg/L		105	80 - 120
Thallium	1.00	1.010		mg/L		101	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-353273/1-A

Matrix: Water

Analysis Batch: 353526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		04/15/21 17:46	04/17/21 11:48	1

Lab Sample ID: LCS 180-353273/2-A

Matrix: Water

Analysis Batch: 353526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Mercury	0.00250	0.002600		mg/L		104	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-351615/2

Matrix: Water

Analysis Batch: 351615

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L		04/01/21 18:44		1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 353273

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 353273

Client Sample ID: Method Blank

Prep Type: Total/NA

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QC Sample Results

Client: Southern Company

Job ID: 180-119143-1

Project/Site: Plant Daniel Ash Pond B

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 180-351615/1

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 351615

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	456.0		mg/L	100		80 - 120

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

HPLC/IC

Analysis Batch: 352030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total/NA	Water	EPA 9056A	
180-119143-2	BAW-2A	Total/NA	Water	EPA 9056A	
180-119143-3	BAW-3	Total/NA	Water	EPA 9056A	
180-119143-4	BAW-7	Total/NA	Water	EPA 9056A	
180-119143-5	DUP-01	Total/NA	Water	EPA 9056A	
MB 180-352030/55	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-352030/54	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-119143-1 MS	BAW-1	Total/NA	Water	EPA 9056A	
180-119143-1 MSD	BAW-1	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 352438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total Recoverable	Water	3005A	
180-119143-2	BAW-2A	Total Recoverable	Water	3005A	
180-119143-3	BAW-3	Total Recoverable	Water	3005A	
180-119143-4	BAW-7	Total Recoverable	Water	3005A	
180-119143-5	DUP-01	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	

Analysis Batch: 353000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total Recoverable	Water	EPA 6020B	352438
180-119143-2	BAW-2A	Total Recoverable	Water	EPA 6020B	352438
180-119143-3	BAW-3	Total Recoverable	Water	EPA 6020B	352438
180-119143-4	BAW-7	Total Recoverable	Water	EPA 6020B	352438
180-119143-5	DUP-01	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

Prep Batch: 353273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total/NA	Water	7470A	
180-119143-2	BAW-2A	Total/NA	Water	7470A	
180-119143-3	BAW-3	Total/NA	Water	7470A	
180-119143-4	BAW-7	Total/NA	Water	7470A	
180-119143-5	DUP-01	Total/NA	Water	7470A	
MB 180-353273/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-353273/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 353526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total/NA	Water	EPA 7470A	353273
180-119143-2	BAW-2A	Total/NA	Water	EPA 7470A	353273
180-119143-3	BAW-3	Total/NA	Water	EPA 7470A	353273
180-119143-4	BAW-7	Total/NA	Water	EPA 7470A	353273
180-119143-5	DUP-01	Total/NA	Water	EPA 7470A	353273
MB 180-353273/1-A	Method Blank	Total/NA	Water	EPA 7470A	353273
LCS 180-353273/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	353273

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-1

General Chemistry

Analysis Batch: 351615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total/NA	Water	SM 2540C	
180-119143-2	BAW-2A	Total/NA	Water	SM 2540C	
180-119143-3	BAW-3	Total/NA	Water	SM 2540C	
180-119143-4	BAW-7	Total/NA	Water	SM 2540C	
180-119143-5	DUP-01	Total/NA	Water	SM 2540C	
MB 180-351615/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351615/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Chain of Custody Record

244-ATLAN

Phone (412) 963-7058 Fax (412) 963-2468

Client Information	Sampler: <u>Philip E. Brett S.</u>	Lab PM: <u>Brown, Shali</u>	Carrier Tracking No(s):
Client Contact:	Phone: <u>850-330-092</u>	E-Mail: <u>shali.brown@eurofinset.com</u>	COC No.: <u>1051</u>
SCS Contacts	Page: <u>1</u>		
Company SCS	Job #: <u></u>		

Analysis Requested										
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 - TSP Dodecylate	T - TSP Ascorbic Acid									
I - Ice	U - Acetone									
J - Di Water	V - MCAA									
K - EDTA	W - pH 4.5									
L - EDA	Z - other (specify)									
Other:										
Total Number of Containers: <u>X</u>										
Radium 226 Radium 228 + Combined										
Total Dissolved Solids										
Chloride Fluoride and Sulfate										
Custom 14 (APP II and IV) + Mercury										
Filterd Sample (Yes or No)										
Matrix (w=water, s=solid, o=waste/oil, b=biomass, a=air)										
Preserve Sample Date Time Sample Type (C=comp, G=grab) Special Instructions/Note:										
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preserve	Code:					
BAW-1	3/26/21	1115	G	W	X					
BAW-2A		0911			X					
BAW-3		1004			X					
BAW-7		1005			V					
DUP-01	3/26/21	1015	G	W	X					
180-119143 Chain of Custody										
Possible Hazard Identity.										
<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)				
Deliverable Requested: I, II, III, IV, Other (specify)										
Empty Kit Reinquished <u>Philip S.</u>										
Reinquished by:	Date/Time:	3/26/21	100	Company	Received by:	Philip S.	Date/Time:	3-27-21	Company	
Reinquished by:	Date/Time:			Company	Received by:		Date/Time:	9:00	Company	
Reinquished by:	Date/Time:			Company	Received by:		Date/Time:		Company	
Custody Seals Intact: <input checked="" type="checkbox"/> Custody Seal No.: <u></u> Cooler Temperature(s) °C and Other Remarks: <u></u>										
△ Yes <input type="checkbox"/>	△ No <input type="checkbox"/>									

Ver: 01/16/2019

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Do Not Lift Using This Tag

ORIGIN ID: MOBA (850) 336-0192

RDH ENVIRONMENTAL
901 ALPHA DR

PITTSBURGH PA 15238
UNITED STATES US

SHIP DATE: 26MAR21
ACTWGT: 67.30 LB
CAD: 6994563/SSFE2121
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO

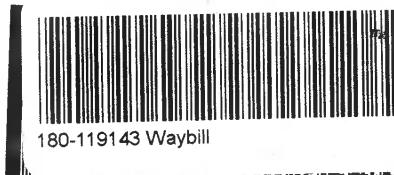
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7068
INH:
POI:

REF:

DEPT:



FedEx
Express



J211121011901UV

TRK# 0201 7852 4594 3452

SATURDAY 12:00P
PRIORITY OVERNIGHT
AHS
15238
PA-US PIT

Uncorrected temp
Thermometer ID

2.3 °C
14

CF O Initials

J

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



FedEx®
Express

SDR

FedEx Saturday Delivery

151967 REV 5/20

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119143-1

Login Number: 119143

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	



Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-119143-2
Client Project/Site: Plant Daniel Ash Pond B

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Lauren Parker

Authorized for release by:
4/26/2021 6:02:07 PM

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

LINKS

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results through

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The
Expert

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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 Daniel Ash Pond B

Job ID: 180-119143-2

Job ID: 180-119143-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-119143-2

Comments

No additional comments.

Receipt

The samples were received on 3/27/2021 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-504026:

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. BAW-1 (180-119143-1), BAW-2A (180-119143-2), BAW-3 (180-119143-3), BAW-7 (180-119143-4), DUP-01 (180-119143-5), (LCS 160-504026/1-A), (LCSD 160-504026/2-A) and (MB 160-504026/16-A)

Methods 904.0, 9320: 904/9320 prep batch 504028

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. BAW-1 (180-119143-1), BAW-2A (180-119143-2), BAW-3 (180-119143-3), BAW-7 (180-119143-4), DUP-01 (180-119143-5), (LCS 160-504028/1-A), (LCSD 160-504028/2-A) and (MB 160-504028/16-A)

Method PrecSep_0: Radium 228 Prep Batch 160-504028:

Insufficient sample volume was available to perform a sample duplicate for the following samples: BAW-1 (180-119143-1), BAW-2A (180-119143-2), BAW-3 (180-119143-3), BAW-7 (180-119143-4) and DUP-01 (180-119143-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-504026:

Insufficient sample volume was available to perform a sample duplicate for the following samples: BAW-1 (180-119143-1), BAW-2A (180-119143-2), BAW-3 (180-119143-3), BAW-7 (180-119143-4) and DUP-01 (180-119143-5). 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: Plant Daniel Ash Pond B

Job ID: 180-119143-2

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.

¤	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 Daniel Ash Pond B

Job ID: 180-119143-2

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: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119143-1	BAW-1	Water	03/26/21 11:15	03/27/21 09:00	
180-119143-2	BAW-2A	Water	03/26/21 09:11	03/27/21 09:00	
180-119143-3	BAW-3	Water	03/26/21 10:04	03/27/21 09:00	
180-119143-4	BAW-7	Water	03/26/21 10:05	03/27/21 09:00	
180-119143-5	DUP-01	Water	03/26/21 10:15	03/27/21 09:00	

Eurofins TestAmerica, Pittsburgh

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

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 Daniel Ash Pond B

Job ID: 180-119143-2

Client Sample ID: BAW-1

Date Collected: 03/26/21 11:15

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.65 mL	1.0 g	504026	04/01/21 16:06	JEC	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			506755	04/23/21 10:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			1000.65 mL	1.0 g	504028	04/01/21 16:26	JEC	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			504967	04/08/21 13:19	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			507107	04/26/21 12:49	FLC	TAL SL

Client Sample ID: BAW-2A

Date Collected: 03/26/21 09:11

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.24 mL	1.0 g	504026	04/01/21 16:06	JEC	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			506755	04/23/21 10:32	SCB	TAL SL
Total/NA	Prep	PrecSep_0			1000.24 mL	1.0 g	504028	04/01/21 16:26	JEC	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			504967	04/08/21 13:19	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			507107	04/26/21 12:49	FLC	TAL SL

Client Sample ID: BAW-3

Date Collected: 03/26/21 10:04

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.25 mL	1.0 g	504026	04/01/21 16:06	JEC	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			506755	04/23/21 10:33	SCB	TAL SL
Total/NA	Prep	PrecSep_0			1000.25 mL	1.0 g	504028	04/01/21 16:26	JEC	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			504967	04/08/21 13:19	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			507107	04/26/21 12:49	FLC	TAL SL

Client Sample ID: BAW-7

Date Collected: 03/26/21 10:05

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.24 mL	1.0 g	504026	04/01/21 16:06	JEC	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			506755	04/23/21 10:33	SCB	TAL SL

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Client Sample ID: BAW-7

Date Collected: 03/26/21 10:05

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.24 mL	1.0 g	504028	04/01/21 16:26	JEC	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			504967	04/08/21 13:19	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			507107	04/26/21 12:49	FLC	TAL SL

Client Sample ID: DUP-01

Date Collected: 03/26/21 10:15

Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.16 mL	1.0 g	504026	04/01/21 16:06	JEC	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			506755	04/23/21 10:33	SCB	TAL SL
Total/NA	Prep	PrecSep_0			1000.16 mL	1.0 g	504028	04/01/21 16:26	JEC	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			504967	04/08/21 13:20	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			507107	04/26/21 12:49	FLC	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

JEC = Julia Crossen

Batch Type: Analysis

ANW = Aamber Woods

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Client Sample ID: BAW-1

Date Collected: 03/26/21 11:15
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.156		0.0903	0.0913	1.00	0.120	pCi/L	04/01/21 16:06	04/23/21 10:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					04/01/21 16:06	04/23/21 10:31	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.648		0.274	0.281	1.00	0.376	pCi/L	04/01/21 16:26	04/08/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					04/01/21 16:26	04/08/21 13:19	1
Y Carrier	80.4		40 - 110					04/01/21 16:26	04/08/21 13:19	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.804		0.288	0.295	5.00	0.376	pCi/L	04/26/21 12:49		1

Client Sample ID: BAW-2A

Date Collected: 03/26/21 09:11
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.142		0.0750	0.0761	1.00	0.0888	pCi/L	04/01/21 16:06	04/23/21 10:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					04/01/21 16:06	04/23/21 10:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.383	U	0.294	0.296	1.00	0.464	pCi/L	04/01/21 16:26	04/08/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					04/01/21 16:26	04/08/21 13:19	1
Y Carrier	83.4		40 - 110					04/01/21 16:26	04/08/21 13:19	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Client Sample ID: BAW-2A

Date Collected: 03/26/21 09:11
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-2

Matrix: Water

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.526		0.303	0.306	5.00	0.464	pCi/L		04/26/21 12:49	1

Client Sample ID: BAW-3

Date Collected: 03/26/21 10:04
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0691	U	0.0723	0.0726	1.00	0.115	pCi/L	04/01/21 16:06	04/23/21 10:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					04/01/21 16:06	04/23/21 10:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.710		0.296	0.303	1.00	0.409	pCi/L	04/01/21 16:26	04/08/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					04/01/21 16:26	04/08/21 13:19	1
Y Carrier	84.1		40 - 110					04/01/21 16:26	04/08/21 13:19	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.780		0.305	0.312	5.00	0.409	pCi/L		04/26/21 12:49	1

Client Sample ID: BAW-7

Date Collected: 03/26/21 10:05
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.165		0.0893	0.0906	1.00	0.116	pCi/L	04/01/21 16:06	04/23/21 10:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					04/01/21 16:06	04/23/21 10:33	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Client Sample ID: BAW-7

Date Collected: 03/26/21 10:05
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-4

Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.648		0.285	0.291	1.00	0.399	pCi/L	04/01/21 16:26	04/08/21 13:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					04/01/21 16:26	04/08/21 13:19	1
Y Carrier	83.4		40 - 110					04/01/21 16:26	04/08/21 13:19	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.813		0.299	0.305	5.00	0.399	pCi/L	04/26/21 12:49		1

Client Sample ID: DUP-01

Date Collected: 03/26/21 10:15
Date Received: 03/27/21 09:00

Lab Sample ID: 180-119143-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.211		0.0893	0.0913	1.00	0.0948	pCi/L	04/01/21 16:06	04/23/21 10:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					04/01/21 16:06	04/23/21 10:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.384	U	0.295	0.297	1.00	0.464	pCi/L	04/01/21 16:26	04/08/21 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					04/01/21 16:26	04/08/21 13:20	1
Y Carrier	83.4		40 - 110					04/01/21 16:26	04/08/21 13:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.596		0.308	0.311	5.00	0.464	pCi/L	04/26/21 12:49		1

QC Sample Results

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-504026/16-A

Matrix: Water

Analysis Batch: 506755

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 504026

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	-0.01196	U		0.0493	0.0493	1.00	0.108	pCi/L	04/01/21 16:06	04/23/21 10:33	1
Carrier	MB	MB									
<i>Ba Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>		<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	83.5			40 - 110					04/01/21 16:06	04/23/21 10:33	1

Lab Sample ID: LCS 160-504026/1-A

Matrix: Water

Analysis Batch: 506755

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 504026

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	%Rec	Limits	%Rec.
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	11.3	11.78		1.20	1.20	1.00	0.0986	pCi/L	104	75 - 125	
Carrier	MB	MB									
<i>Ba Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>		<i>Limits</i>							
	86.2			40 - 110							

Lab Sample ID: LCSD 160-504026/2-A

Matrix: Water

Analysis Batch: 506755

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 504026

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	%Rec	Limits	%Rec.
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	11.3	11.18		1.15	1.15	1.00	0.102	pCi/L	99	75 - 125	0.26
Carrier	MB	MB									
<i>Ba Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>		<i>Limits</i>							
	87.1			40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-504028/16-A

Matrix: Water

Analysis Batch: 504967

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 504028

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-228	0.2068	U		0.244	0.245	1.00	0.403	pCi/L	04/01/21 16:26	04/08/21 13:20	1
Carrier	MB	MB							<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>		<i>Limits</i>					04/01/21 16:26	04/08/21 13:20	1
<i>Y Carrier</i>	83.5			40 - 110					04/01/21 16:26	04/08/21 13:20	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company

Job ID: 180-119143-2

Project/Site: Plant Daniel Ash Pond B

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

Lab Sample ID: LCS 160-504028/1-A

Matrix: Water

Analysis Batch: 504967

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 504028

Analyte	Spike Added	Total			%Rec.	Limits	
		LCS Result	LCS Qual	Uncert. (2σ+/-)			
Radium-228	7.30	8.331		1.03	1.00	0.426	pCi/L

LCS LCS

Carrier	LCS	LCS	Limits
	%Yield	Qualifier	
Ba Carrier	86.2		40 - 110
Y Carrier	83.7		40 - 110

Lab Sample ID: LCSD 160-504028/2-A

Matrix: Water

Analysis Batch: 504967

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 504028

Analyte	Spike Added	Total			%Rec.	Limits	RER	RER Limit
		LCSD Result	LCSD Qual	Uncert. (2σ+/-)				
Radium-228	7.30	8.718		1.07	1.00	0.411	pCi/L	0.18

LCSD LCSD

Carrier	LCSD	LCSD	Limits
	%Yield	Qualifier	
Ba Carrier	87.1		40 - 110
Y Carrier	83.7		40 - 110

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-119143-2

Rad

Prep Batch: 504026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total/NA	Water	PrecSep-21	5
180-119143-2	BAW-2A	Total/NA	Water	PrecSep-21	6
180-119143-3	BAW-3	Total/NA	Water	PrecSep-21	7
180-119143-4	BAW-7	Total/NA	Water	PrecSep-21	8
180-119143-5	DUP-01	Total/NA	Water	PrecSep-21	9
MB 160-504026/16-A	Method Blank	Total/NA	Water	PrecSep-21	10
LCS 160-504026/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	11
LCSD 160-504026/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	12

Prep Batch: 504028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119143-1	BAW-1	Total/NA	Water	PrecSep_0	13
180-119143-2	BAW-2A	Total/NA	Water	PrecSep_0	1
180-119143-3	BAW-3	Total/NA	Water	PrecSep_0	2
180-119143-4	BAW-7	Total/NA	Water	PrecSep_0	3
180-119143-5	DUP-01	Total/NA	Water	PrecSep_0	4
MB 160-504028/16-A	Method Blank	Total/NA	Water	PrecSep_0	5
LCS 160-504028/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	6
LCSD 160-504028/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	7

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Do Not Lift Using This Tag

ORIGIN ID: MOBA (850) 336-0192

RDH ENVIRONMENTAL
901 ALPHA DR

PITTSBURGH PA 15238
UNITED STATES US

SHIP DATE: 26MAR21
ACTWGT: 67.30 LB
CAD: 6994563/SSFE2121
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO

TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7068
INH:
POI:

REF:

DEPT:



FedEx
Express



J211121011901UV

TRK# 0201 7852 4594 3452

SATURDAY 12:00P
PRIORITY OVERNIGHT
AHS
15238
PA-US PIT

Uncorrected temp
Thermometer ID

2.3 °C
14

CF O Initials

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

J



FedEx®
Express

SDR

FedEx Saturday Delivery

151967 REV 5/20

Chain of Custody Record



Environment Testing
America

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analytic & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins 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

Economic lot Delinquent bid **Primary Delinquent bid** **Secondary Delinquent bid** **Special instructions/GR requirements:**

Method of Shipment: **FED EX** Date/Time: _____ Company: _____

Relinquished by: S FED EX Received by Anthony D'Sca Date/time: 23/3/12 Company ETA

△ Yes △ No

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119143-2

Login Number: 119143

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: 180-119143-2

Login Number: 119143

List Source: Eurofins TestAmerica, St. Louis

List Number: 2

List Creation: 03/31/21 02:49 PM

Creator: Mazariegos, Leonel A

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	

Product Name: Low-Flow System

Date: 2021-03-26 11:12:43

Project Information:

Operator Name	Philip Evans
Company Name	RDH Environmental
Project Name	Plant Daniel BAW wells
Site Name	Daniel
Latitude	0° 0' 0"
Longitude	0° 0' 0"
Sonde SN	417744
Turbidity Make/Model	HACH 2100Q

Pump Information:

Pump Model/Type	QED
Tubing Type	PE
Tubing Diameter	.17 in
Tubing Length	67 ft

Pump placement from TOC	58.1 ft
-------------------------	---------

Well Information:

Well ID	BAW-1
Well diameter	2 in
Well Total Depth	60.6 ft
Screen Length	5 ft
Depth to Water	41.59 ft

Pumping Information:

Final Pumping Rate	400 mL/min
Total System Volume	0.7790493 L
Calculated Sample Rate	300 sec
Stabilization Drawdown	0.72 in
Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:55:41	300.03	21.91	4.86	37.23	0.70	41.65	5.39	159.06
Last 5	11:00:41	600.02	21.89	4.84	36.77	0.52	41.65	5.49	161.38
Last 5	11:05:41	900.02	21.92	4.87	36.76	0.50	41.65	5.52	161.71
Last 5	11:10:41	1200.02	21.93	4.86	36.64	0.47	41.65	5.54	161.67
Last 5									
Variance 0			-0.02	-0.02	-0.46			0.10	2.32
Variance 1			0.03	0.03	-0.01			0.03	0.33
Variance 2			0.01	-0.01	-0.12			0.03	-0.05

Notes

Sample time @ 1115. PC 75. DUP-01@ fake time 1015.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-26 09:11:45

Project Information:

Operator Name Brett Surles
Company Name RDH
Project Name Daniel BAW
Site Name Plant Daniel BAW wells
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 632615
Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 70 ft

Pump placement from TOC 62.2 ft

Well Information:

Well ID BAW-2a
Well diameter 2 in
Well Total Depth 67.2 ft
Screen Length 10 ft
Depth to Water 54.50 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7974396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.03 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:49:24	300.04	23.88	4.85	37.98	0.60	54.53	5.11	131.02
Last 5	08:54:24	600.02	23.61	4.74	37.59	0.57	54.53	4.62	134.16
Last 5	08:59:24	900.02	23.89	4.71	38.31	0.71	54.53	3.99	133.61
Last 5	09:04:24	1200.02	23.93	4.71	38.41	0.74	54.53	3.95	132.63
Last 5	09:09:24	1500.02	23.94	4.70	38.47	0.66	54.53	3.93	131.65
Variance 0		0.28	-0.03		0.72			-0.63	-0.55
Variance 1		0.03	-0.00		0.10			-0.05	-0.98
Variance 2		0.01	-0.00		0.06			-0.02	-0.98

Notes

Sample@0911, Cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-26 10:04:38

Project Information:

Operator Name Brett Surles
 Company Name RDH
 Project Name Daniel BAW
 Site Name Plant Daniel BAW wells
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 632615
 Turbidity Make/Model HACH

Pump Information:

Pump Model/Type QED
 Tubing Type PE
 Tubing Diameter .17 in
 Tubing Length 70 ft
 Pump placement from TOC 63.4 ft

Well Information:

Well ID BAW-3
 Well diameter 2 in
 Well Total Depth 68.4 ft
 Screen Length 10 ft
 Depth to Water 53.93 ft

Pumping Information:

Final Pumping Rate 400 mL/min
 Total System Volume 0.7974396 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 0.02 in
 Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:48:48	300.07	24.33	4.53	49.28	2.23	53.95	0.35	132.21
Last 5	09:53:48	600.02	24.36	4.53	49.32	1.89	53.95	0.31	126.95
Last 5	09:58:48	900.02	24.38	4.53	49.34	1.52	53.95	0.30	123.49
Last 5	10:03:48	1200.02	24.40	4.54	49.38	1.37	53.95	0.30	121.06
Last 5									
Variance 0			0.02	-0.00	0.04			-0.04	-5.26
Variance 1			0.02	0.00	0.02			-0.01	-3.45
Variance 2			0.03	0.01	0.04			0.00	-2.44

Notes

Sample@1004,cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-17 09:49:04

Project Information:

Operator Name Philip Evans
 Company Name RDH Environmental
 Project Name Daniel BAW CCR
 Site Name Daniel
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 417744
 Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
 Tubing Type PE
 Tubing Diameter .17 in
 Tubing Length 75 ft

Pump placement from TOC 64.9 ft

Well Information:

Well ID BAW-4
 Well diameter 2 in
 Well Total Depth 69.9 ft
 Screen Length 10 ft
 Depth to Water 46.38 ft

Pumping Information:

Final Pumping Rate 400 mL/min
 Total System Volume 0.8147567 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 0.6 in
 Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:33:16	300.05	21.60	5.59	75.98	1.24	46.43	0.25	-54.68
Last 5	09:38:16	600.05	21.51	5.62	77.89	1.21	46.43	0.20	-62.24
Last 5	09:43:16	900.05	21.58	5.62	77.93	1.15	46.43	0.20	-63.98
Last 5	09:48:16	1200.05	21.59	5.62	77.85	1.12	46.43	0.20	-64.19
Last 5									
Variance 0			-0.09	0.03	1.91			-0.05	-7.56
Variance 1			0.07	-0.00	0.04			-0.00	-1.74
Variance 2			0.01	-0.00	-0.08			0.01	-0.21

Notes

Sample time @ 0950. PC 75.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-17 09:00:26

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Daniel BAW CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 75 ft

Pump placement from TOC 64.1 ft

Well Information:

Well ID BAW-5
Well diameter 2 in
Well Total Depth 69.1 ft
Screen Length 10 ft
Depth to Water 46.70 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.8147567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	08:43:24	300.05	21.28	6.13	136.07	0.80	46.72	0.25	-66.43
Last 5	08:48:24	600.05	21.30	6.14	135.67	0.54	46.72	0.20	-77.44
Last 5	08:53:24	900.05	21.33	6.14	135.69	0.50	46.72	0.20	-80.08
Last 5	08:58:24	1200.05	21.40	6.14	135.42	0.47	46.72	0.21	-81.85
Last 5									
Variance 0			0.01	0.01	-0.41			-0.05	-11.01
Variance 1			0.04	0.00	0.02			-0.00	-2.64
Variance 2			0.07	-0.00	-0.27			0.01	-1.77

Notes

Sample time @ 0900. PC 72.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-26 10:05:40

Project Information:

Operator Name Philip Evans
 Company Name RDH Environmental
 Project Name Daniel BAW CCR
 Site Name Daniel
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 417744
 Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
 Tubing Type PE
 Tubing Diameter .17 in
 Tubing Length 70 ft

Pump placement from TOC 55 ft

Well Information:

Well ID BAW-7
 Well diameter 2 in
 Well Total Depth 60 ft
 Screen Length 10 ft
 Depth to Water 46.61 ft

Pumping Information:

Final Pumping Rate 400 mL/min
 Total System Volume 0.7924396 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 1.68 in
 Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:45:49	300.09	21.71	4.68	51.76	2.96	46.72	1.55	184.67
Last 5	09:50:49	600.02	21.71	4.66	50.95	1.65	46.74	1.44	179.01
Last 5	09:55:49	900.02	21.68	4.67	50.43	1.42	46.74	1.52	174.12
Last 5	10:00:49	1200.02	21.73	4.67	50.14	1.38	46.75	1.59	170.26
Last 5									
Variance 0			0.00	-0.01	-0.81			-0.11	-5.66
Variance 1				-0.03	0.00	-0.52		0.08	-4.89
Variance 2				0.05	0.01	-0.29		0.07	-3.85

Notes

Sample time @ 1005. Cloudy 75.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-17 08:04:34

Project Information:

Operator Name Philip Evans
 Company Name RDH Environmental
 Project Name Plant Daniel BAW wells
 Site Name Daniel
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 417744
 Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type BP
 Tubing Type PE
 Tubing Diameter .17 in
 Tubing Length 70 ft

Pump placement from TOC 63.7 ft

Well Information:

Well ID BAW-8
 Well diameter 2 in
 Well Total Depth 68.7 ft
 Screen Length 10 ft
 Depth to Water 49.00 ft

Pumping Information:

Final Pumping Rate 400 mL/min
 Total System Volume 0.5324396 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 0.6 in
 Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:48:02	300.05	21.84	5.90	120.46	1.98	49.05	0.24	-78.79
Last 5	07:53:02	600.05	22.05	5.89	119.07	0.95	49.05	0.23	-82.94
Last 5	07:58:02	900.05	22.10	5.89	118.98	0.82	49.05	0.23	-84.32
Last 5	08:03:02	1200.05	22.17	5.89	118.74	0.80	49.05	0.22	-85.31
Last 5									
Variance 0			0.21	-0.01	-1.38			-0.01	-4.15
Variance 1			0.05	-0.00	-0.10			0.00	-1.38
Variance 2			0.06	0.00	-0.24			-0.02	-0.99

Notes

Sample time @ 0805. Cloudy 65. EB-01@ 0730.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-17 07:14:03

Project Information:

Operator Name Philip Evans
 Company Name RDH Environmental
 Project Name Plant Daniel BAW wells
 Site Name Daniel
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 417744
 Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type BP
 Tubing Type PE
 Tubing Diameter .17 in
 Tubing Length 70 ft

Pump placement from TOC 58.15 ft

Well Information:

Well ID BAW-9
 Well diameter 2 in
 Well Total Depth 63.15 ft
 Screen Length 10 ft
 Depth to Water 47.21 ft

Pumping Information:

Final Pumping Rate 400 mL/min
 Total System Volume 0.5324396 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 0.84 in
 Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:56:48	300.06	22.21	5.93	121.27	0.82	47.28	0.26	-73.69
Last 5	07:01:48	600.05	22.35	5.94	120.15	0.68	47.28	0.22	-88.52
Last 5	07:06:48	900.05	22.30	5.94	119.81	0.61	47.28	0.21	-94.90
Last 5	07:11:48	1200.05	22.28	5.95	119.47	0.54	47.28	0.20	-98.44
Last 5									
Variance 0			0.14	0.00	-1.12			-0.05	-14.83
Variance 1			-0.05	0.01	-0.34			-0.01	-6.38
Variance 2			-0.02	0.00	-0.34			-0.01	-3.54

Notes

Sample time @ 0715. Cloudy 65. FB-01@ 0710.

Grab Samples

2nd

Semi-Annual

Monitoring Event



Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-128108-1

Client Project/Site: Plant Daniel Ash Pond B

For:

Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
10/20/2021 6:04:17 PM

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

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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 Daniel Ash Pond B

Job ID: 180-128108-1

Job ID: 180-128108-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-128108-1

Comments

No additional comments.

Receipt

The samples were received on 10/6/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

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.

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 Daniel Ash Pond B

Job ID: 180-128108-1

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: Plant Daniel Ash Pond B

Job ID: 180-128108-1

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 Daniel Ash Pond B

Job ID: 180-128108-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-128108-1	BAW-7	Water	10/05/21 11:00	10/06/21 10:00
180-128108-2	BAW-1	Water	10/05/21 12:20	10/06/21 10:00
180-128108-3	BAW-4	Water	10/05/21 13:35	10/06/21 10:00

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

Protocol References:

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 Daniel Ash Pond B

Job ID: 180-128108-1

Client Sample ID: BAW-7

Date Collected: 10/05/21 11:00

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-1

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 9056A		1			374422	10/07/21 13:46	J1T	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 08:31	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	374418	10/07/21 11:37	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			374620	10/08/21 12:52	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374629	10/08/21 17:13	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-1

Date Collected: 10/05/21 12:20

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			374422	10/07/21 20:55	J1T	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 08:35	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	374418	10/07/21 11:37	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			374620	10/08/21 12:55	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374629	10/08/21 17:13	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-4

Date Collected: 10/05/21 13:35

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			374422	10/07/21 21:13	J1T	TAL PIT
		Instrument ID: INTEGRION								
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 08:39	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	374418	10/07/21 11:37	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			374620	10/08/21 12:56	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374629	10/08/21 17:13	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

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

Analyst References:

Lab: TAL PIT

Batch Type: Prep

MM1 = Mary Beth Miller

RGM = Rebecca Manns

Batch Type: Analysis

J1T = Jianwu Tang

KMM = Kendric Moore

RJR = Ron Rosenbaum

RSK = Robert Kurtz

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

Client Sample ID: BAW-7
Date Collected: 10/05/21 11:00
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-1
Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.3		1.00	0.713	mg/L			10/07/21 13:46	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 13:46	1
Sulfate	2.55		1.00	0.756	mg/L			10/07/21 13:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/19/21 11:33	10/20/21 08:31	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		10/19/21 11:33	10/20/21 08:31	1
Barium	0.0200		0.0100	0.00160	mg/L		10/19/21 11:33	10/20/21 08:31	1
Beryllium	0.000185 J		0.00100	0.000182	mg/L		10/19/21 11:33	10/20/21 08:31	1
Boron	0.281		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:31	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/19/21 11:33	10/20/21 08:31	1
Calcium	0.829		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:31	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/19/21 11:33	10/20/21 08:31	1
Cobalt	0.00112		0.000500	0.000134	mg/L		10/19/21 11:33	10/20/21 08:31	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/19/21 11:33	10/20/21 08:31	1
Lithium	0.00450 J		0.00500	0.00339	mg/L		10/19/21 11:33	10/20/21 08:31	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/19/21 11:33	10/20/21 08:31	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/19/21 11:33	10/20/21 08:31	1
Thallium	0.000153 J		0.00100	0.000148	mg/L		10/19/21 11:33	10/20/21 08:31	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000151 J		0.000200	0.000130	mg/L		10/07/21 11:37	10/08/21 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	45.0		10.0	10.0	mg/L			10/08/21 17:13	1

Client Sample ID: BAW-1

Lab Sample ID: 180-128108-2

Matrix: Water

Date Collected: 10/05/21 12:20
Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.21		1.00	0.713	mg/L			10/07/21 20:55	1
Fluoride	0.0499 J		0.100	0.0260	mg/L			10/07/21 20:55	1
Sulfate	1.13		1.00	0.756	mg/L			10/07/21 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/19/21 11:33	10/20/21 08:35	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		10/19/21 11:33	10/20/21 08:35	1
Barium	0.0391		0.0100	0.00160	mg/L		10/19/21 11:33	10/20/21 08:35	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/19/21 11:33	10/20/21 08:35	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:35	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/19/21 11:33	10/20/21 08:35	1
Calcium	0.996		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:35	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/19/21 11:33	10/20/21 08:35	1
Cobalt	0.00143		0.000500	0.000134	mg/L		10/19/21 11:33	10/20/21 08:35	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/19/21 11:33	10/20/21 08:35	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

Client Sample ID: BAW-1

Date Collected: 10/05/21 12:20

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500	0.00339	mg/L		10/19/21 11:33	10/20/21 08:35	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/19/21 11:33	10/20/21 08:35	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/19/21 11:33	10/20/21 08:35	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/19/21 11:33	10/20/21 08:35	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/07/21 11:37	10/08/21 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26.0		10.0	10.0	mg/L		10/08/21 17:13		1

Client Sample ID: BAW-4

Date Collected: 10/05/21 13:35

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-3

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.3		1.00	0.713	mg/L		10/07/21 21:13		1
Fluoride	0.0505 J		0.100	0.0260	mg/L		10/07/21 21:13		1
Sulfate	5.02		1.00	0.756	mg/L		10/07/21 21:13		1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/19/21 11:33	10/20/21 08:39	1
Arsenic	0.00259		0.00100	0.000313	mg/L		10/19/21 11:33	10/20/21 08:39	1
Barium	0.0283		0.0100	0.00160	mg/L		10/19/21 11:33	10/20/21 08:39	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/19/21 11:33	10/20/21 08:39	1
Boron	0.168		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:39	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/19/21 11:33	10/20/21 08:39	1
Calcium	8.57		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:39	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/19/21 11:33	10/20/21 08:39	1
Cobalt	0.00187		0.000500	0.000134	mg/L		10/19/21 11:33	10/20/21 08:39	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/19/21 11:33	10/20/21 08:39	1
Lithium	0.0127		0.00500	0.00339	mg/L		10/19/21 11:33	10/20/21 08:39	1
Molybdenum	0.00109 J		0.00500	0.000610	mg/L		10/19/21 11:33	10/20/21 08:39	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/19/21 11:33	10/20/21 08:39	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/19/21 11:33	10/20/21 08:39	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/07/21 11:37	10/08/21 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	75.0		10.0	10.0	mg/L		10/08/21 17:13		1

QC Sample Results

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-374422/6

Matrix: Water

Analysis Batch: 374422

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/07/21 13:28	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 13:28	1
Sulfate	<0.756		1.00	0.756	mg/L			10/07/21 13:28	1

Lab Sample ID: LCS 180-374422/5

Matrix: Water

Analysis Batch: 374422

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	51.24		mg/L		102	80 - 120
Fluoride		2.50	2.500		mg/L		100	80 - 120
Sulfate		50.0	49.86		mg/L		100	80 - 120

Lab Sample ID: 180-128108-1 MS

Matrix: Water

Analysis Batch: 374422

Client Sample ID: BAW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.3		50.0	60.20		mg/L		100	80 - 120
Fluoride	<0.0260		2.50	2.630		mg/L		105	80 - 120
Sulfate	2.55		50.0	52.64		mg/L		100	80 - 120

Lab Sample ID: 180-128108-1 MSD

Matrix: Water

Analysis Batch: 374422

Client Sample ID: BAW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.3		50.0	57.99		mg/L		95	80 - 120	4	15
Fluoride	<0.0260		2.50	2.512		mg/L		100	80 - 120	5	15
Sulfate	2.55		50.0	50.76		mg/L		96	80 - 120	4	15

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

Lab Sample ID: MB 180-375811/1-A

Matrix: Water

Analysis Batch: 375961

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 375811

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/19/21 11:33	10/20/21 08:17	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		10/19/21 11:33	10/20/21 08:17	1
Barium	<0.00160		0.0100	0.00160	mg/L		10/19/21 11:33	10/20/21 08:17	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/19/21 11:33	10/20/21 08:17	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:17	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/19/21 11:33	10/20/21 08:17	1
Calcium	<0.127		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:17	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/19/21 11:33	10/20/21 08:17	1
Cobalt	<0.000134		0.000500	0.000134	mg/L		10/19/21 11:33	10/20/21 08:17	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/19/21 11:33	10/20/21 08:17	1
Lithium	<0.00339		0.00500	0.00339	mg/L		10/19/21 11:33	10/20/21 08:17	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/19/21 11:33	10/20/21 08:17	1

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QC Sample Results

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

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

Lab Sample ID: MB 180-375811/1-A

Matrix: Water

Analysis Batch: 375961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00151		0.00500	0.00151	mg/L		10/19/21 11:33	10/20/21 08:17	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/19/21 11:33	10/20/21 08:17	1

Lab Sample ID: LCS 180-373695/2-C

Matrix: Water

Analysis Batch: 375961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	
						%Rec.	Limits
Antimony	0.250	0.2306		mg/L		92	80 - 120
Arsenic	1.00	0.9683		mg/L		97	80 - 120
Barium	1.00	0.9793		mg/L		98	80 - 120
Beryllium	0.500	0.5066		mg/L		101	80 - 120
Boron	1.25	1.103		mg/L		88	80 - 120
Cadmium	0.500	0.4880		mg/L		98	80 - 120
Calcium	25.0	25.20		mg/L		101	80 - 120
Chromium	0.500	0.4852		mg/L		97	80 - 120
Cobalt	0.500	0.4819		mg/L		96	80 - 120
Lead	0.500	0.4891		mg/L		98	80 - 120
Lithium	0.500	0.4705		mg/L		94	80 - 120
Molybdenum	0.500	0.4864		mg/L		97	80 - 120
Selenium	1.00	0.9487		mg/L		95	80 - 120
Thallium	1.00	0.9748		mg/L		97	80 - 120

Lab Sample ID: LCS 180-375811/2-A

Matrix: Water

Analysis Batch: 375961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	
						%Rec.	Limits
Antimony	0.250	0.2361		mg/L		94	80 - 120
Arsenic	1.00	0.9843		mg/L		98	80 - 120
Barium	1.00	1.003		mg/L		100	80 - 120
Beryllium	0.500	0.5127		mg/L		103	80 - 120
Boron	1.25	1.163		mg/L		93	80 - 120
Cadmium	0.500	0.5016		mg/L		100	80 - 120
Calcium	25.0	25.56		mg/L		102	80 - 120
Chromium	0.500	0.4965		mg/L		99	80 - 120
Cobalt	0.500	0.5026		mg/L		101	80 - 120
Lead	0.500	0.5007		mg/L		100	80 - 120
Lithium	0.500	0.4889		mg/L		98	80 - 120
Molybdenum	0.500	0.5061		mg/L		101	80 - 120
Selenium	1.00	1.011		mg/L		101	80 - 120
Thallium	1.00	1.033		mg/L		103	80 - 120

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 375811

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-374418/1-A

Matrix: Water

Analysis Batch: 374620

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 374418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/07/21 11:37	10/08/21 12:50	1

Lab Sample ID: LCS 180-374418/2-A

Matrix: Water

Analysis Batch: 374620

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 374418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Mercury	0.00250	0.002364		mg/L		95	80 - 120

Lab Sample ID: 180-128108-1 MS

Matrix: Water

Analysis Batch: 374620

Client Sample ID: BAW-7

Prep Type: Total/NA

Prep Batch: 374418

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Mercury	0.000151	J	0.00100	0.001100		mg/L		95	75 - 125

Lab Sample ID: 180-128108-1 MSD

Matrix: Water

Analysis Batch: 374620

Client Sample ID: BAW-7

Prep Type: Total/NA

Prep Batch: 374418

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD	Limit
Mercury	0.000151	J	0.00100	0.001130		mg/L		98	75 - 125	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-374629/2

Matrix: Water

Analysis Batch: 374629

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	<10.0		10.0	10.0	mg/L			10/08/21 17:13	1

Lab Sample ID: LCS 180-374629/1

Matrix: Water

Analysis Batch: 374629

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Dissolved Solids	422	396.0		mg/L		94	80 - 120

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QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

HPLC/IC

Analysis Batch: 374422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total/NA	Water	EPA 9056A	
180-128108-2	BAW-1	Total/NA	Water	EPA 9056A	
180-128108-3	BAW-4	Total/NA	Water	EPA 9056A	
MB 180-374422/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-374422/5	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-128108-1 MS	BAW-7	Total/NA	Water	EPA 9056A	
180-128108-1 MSD	BAW-7	Total/NA	Water	EPA 9056A	

Metals

Filtration Batch: 373695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-373695/2-C	Lab Control Sample	Total Recoverable	Water	Filtration	

Prep Batch: 374418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total/NA	Water	7470A	
180-128108-2	BAW-1	Total/NA	Water	7470A	
180-128108-3	BAW-4	Total/NA	Water	7470A	
MB 180-374418/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-374418/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-128108-1 MS	BAW-7	Total/NA	Water	7470A	
180-128108-1 MSD	BAW-7	Total/NA	Water	7470A	

Analysis Batch: 374620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total/NA	Water	EPA 7470A	374418
180-128108-2	BAW-1	Total/NA	Water	EPA 7470A	374418
180-128108-3	BAW-4	Total/NA	Water	EPA 7470A	374418
MB 180-374418/1-A	Method Blank	Total/NA	Water	EPA 7470A	374418
LCS 180-374418/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	374418
180-128108-1 MS	BAW-7	Total/NA	Water	EPA 7470A	374418
180-128108-1 MSD	BAW-7	Total/NA	Water	EPA 7470A	374418

Prep Batch: 375811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total Recoverable	Water	3005A	
180-128108-2	BAW-1	Total Recoverable	Water	3005A	
180-128108-3	BAW-4	Total Recoverable	Water	3005A	
MB 180-375811/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-373695/2-C	Lab Control Sample	Total Recoverable	Water	3005A	373695
LCS 180-375811/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 375961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total Recoverable	Water	EPA 6020B	375811
180-128108-2	BAW-1	Total Recoverable	Water	EPA 6020B	375811
180-128108-3	BAW-4	Total Recoverable	Water	EPA 6020B	375811
MB 180-375811/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	375811
LCS 180-373695/2-C	Lab Control Sample	Total Recoverable	Water	EPA 6020B	375811
LCS 180-375811/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	375811

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-1

General Chemistry

Analysis Batch: 374629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total/NA	Water	SM 2540C	
180-128108-2	BAW-1	Total/NA	Water	SM 2540C	
180-128108-3	BAW-4	Total/NA	Water	SM 2540C	
MB 180-374629/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-374629/1	Lab Control Sample	Total/NA	Water	SM 2540C	

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Chain of Custody Record

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-128108-1

Login Number: 128108

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	



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Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-128108-2

Client Project/Site: Plant Daniel Ash Pond B

For:

Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
11/11/2021 2:26:54 PM

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

LINKS

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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 Daniel Ash Pond B

Job ID: 180-128108-2

Job ID: 180-128108-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-128108-2

Comments

No additional comments.

Receipt

The samples were received on 10/6/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

RAD

Methods 903.0, 9315: Ra-226 batch 160-531422

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. BAW-7 (180-128108-1), BAW-1 (180-128108-2), BAW-4 (180-128108-3), (LCS 160-531422/1-A), (LCSD 160-531422/2-A) and (MB 160-531422/22-A)

Methods 904.0, 9320: Ra228 160-531585

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. BAW-7 (180-128108-1), BAW-1 (180-128108-2) and BAW-4 (180-128108-3)

Method PrecSep_0: Radium-228 Prep Batch 160-531585

The following samples were prepared at a reduced aliquot due to Matrix: BAW-7 (180-128108-1), BAW-1 (180-128108-2) and BAW-4 (180-128108-3). 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 160-531422

The following samples were prepared at a reduced aliquot due to Matrix: BAW-7 (180-128108-1), BAW-1 (180-128108-2) and BAW-4 (180-128108-3). 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.

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-2

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.

¤	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 Daniel Ash Pond B

Job ID: 180-128108-2

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	200023	11-30-22
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 Daniel Ash Pond B

Job ID: 180-128108-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-128108-1	BAW-7	Water	10/05/21 11:00	10/06/21 10:00
180-128108-2	BAW-1	Water	10/05/21 12:20	10/06/21 10:00
180-128108-3	BAW-4	Water	10/05/21 13:35	10/06/21 10:00

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-2

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 Daniel Ash Pond B

Job ID: 180-128108-2

Client Sample ID: BAW-7

Date Collected: 10/05/21 11:00

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.60 mL	1.0 g	531422	10/13/21 11:16	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			535209	11/05/21 21:09	FLC	TAL SL
Total/NA	Prep	PrecSep_0			750.60 mL	1.0 g	531585	10/13/21 12:00	BMP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			535209	11/05/21 12:59	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			535816	11/10/21 11:43	EMH	TAL SL

Client Sample ID: BAW-1

Date Collected: 10/05/21 12:20

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.19 mL	1.0 g	531422	10/13/21 11:16	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCPURPLE		1			535389	11/07/21 21:13	JLP	TAL SL
Total/NA	Prep	PrecSep_0			750.19 mL	1.0 g	531585	10/13/21 12:00	BMP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			535209	11/05/21 12:59	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			535816	11/10/21 11:43	EMH	TAL SL

Client Sample ID: BAW-4

Date Collected: 10/05/21 13:35

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.20 mL	1.0 g	531422	10/13/21 11:16	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCPURPLE		1			535389	11/07/21 21:13	JLP	TAL SL
Total/NA	Prep	PrecSep_0			750.20 mL	1.0 g	531585	10/13/21 12:00	BMP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCBLUE		1			535209	11/05/21 12:59	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			535816	11/10/21 11:43	EMH	TAL SL

Laboratory References:

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

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-2

Analyst References:

Lab: TAL SL

Batch Type: Prep

BMP = Bailey Pinette

Batch Type: Analysis

EMH = Elizabeth Hoerchler

FLC = Fernando Cruz

JLP = James Porter

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Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-2

Client Sample ID: BAW-7

Date Collected: 10/05/21 11:00

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.140	U	0.328	0.329	1.00	0.587	pCi/L	10/13/21 11:16	11/05/21 21:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					10/13/21 11:16	11/05/21 21:09	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.674		0.337	0.343	1.00	0.490	pCi/L	10/13/21 12:00	11/05/21 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					10/13/21 12:00	11/05/21 12:59	1
Y Carrier	87.1		40 - 110					10/13/21 12:00	11/05/21 12:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.814		0.470	0.475	5.00	0.587	pCi/L		11/10/21 11:43	1

Client Sample ID: BAW-1

Date Collected: 10/05/21 12:20

Date Received: 10/06/21 10:00

Lab Sample ID: 180-128108-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.332	U	0.228	0.230	1.00	0.334	pCi/L	10/13/21 11:16	11/07/21 21:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					10/13/21 11:16	11/07/21 21:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.20		0.395	0.410	1.00	0.513	pCi/L	10/13/21 12:00	11/05/21 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					10/13/21 12:00	11/05/21 12:59	1
Y Carrier	88.6		40 - 110					10/13/21 12:00	11/05/21 12:59	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-2

Client Sample ID: BAW-1

Lab Sample ID: 180-128108-2

Date Collected: 10/05/21 12:20

Matrix: Water

Date Received: 10/06/21 10:00

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.53		0.456	0.470	5.00	0.513	pCi/L		11/10/21 11:43	1

Client Sample ID: BAW-4

Lab Sample ID: 180-128108-3

Date Collected: 10/05/21 13:35

Matrix: Water

Date Received: 10/06/21 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.0486	U	0.141	0.141	1.00	0.296	pCi/L	10/13/21 11:16	11/07/21 21:13	1
Carrier										
Ba Carrier	95.6	Qualifier	Limits	40 - 110				Prepared	Analyzed	Dil Fac
								10/13/21 11:16	11/07/21 21:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	1.11		0.377	0.391	1.00	0.499	pCi/L	10/13/21 12:00	11/05/21 12:59	1
Carrier										
Ba Carrier	95.6	Qualifier	Limits	40 - 110				Prepared	Analyzed	Dil Fac
Y Carrier	85.6		40 - 110					10/13/21 12:00	11/05/21 12:59	1
								10/13/21 12:00	11/05/21 12:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.06		0.403	0.416	5.00	0.499	pCi/L		11/10/21 11:43	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company

Job ID: 180-128108-2

Project/Site: Plant Daniel Ash Pond B

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-531422/22-A

Matrix: Water

Analysis Batch: 535389

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 531422

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	0.1919	U		0.183	0.184	1.00	0.289	pCi/L	10/13/21 11:16	11/07/21 21:13	1
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits					Prepared	Analyzed	Dil Fac
	96.1			40 - 110					10/13/21 11:16	11/07/21 21:13	1

Lab Sample ID: LCS 160-531422/1-A

Matrix: Water

Analysis Batch: 535209

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 531422

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	%Rec	Limits	%Rec.
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	15.1	12.34		1.62	1.00	0.425	pCi/L		82	75 - 125	
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits							
	101			40 - 110							

Lab Sample ID: LCSD 160-531422/2-A

Matrix: Water

Analysis Batch: 535209

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 531422

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	%Rec	Limits	%Rec.
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	15.1	13.70		1.76	1.00	0.470	pCi/L		91	75 - 125	0.40
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits							
	95.6			40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-531585/22-A

Matrix: Water

Analysis Batch: 535209

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 531585

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-228	0.9954	0.449		0.458	1.00	0.666	pCi/L		10/13/21 12:00	11/05/21 12:59	1
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits					Prepared	Analyzed	Dil Fac
	96.1			40 - 110					10/13/21 12:00	11/05/21 12:59	1
<i>Y Carrier</i>				40 - 110					10/13/21 12:00	11/05/21 12:59	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company

Job ID: 180-128108-2

Project/Site: Plant Daniel Ash Pond B

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

Lab Sample ID: LCS 160-531585/1-A

Matrix: Water

Analysis Batch: 535213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 531585

Analyte	Spike Added	Total			%Rec.	Limits	
		LCS Result	LCS Qual	Uncert. (2σ+/-)			
Radium-228	12.2	10.68		1.29	1.00	0.551	pCi/L

LCS LCS

Carrier	%Yield	Qualifier	Limits	
Ba Carrier	101		40	- 110
Y Carrier	83.4		40	- 110

Lab Sample ID: LCSD 160-531585/2-A

Matrix: Water

Analysis Batch: 535213

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 531585

Analyte	Spike Added	Total			RER	RER Limit	
		LCSD Result	LCSD Qual	Uncert. (2σ+/-)			
Radium-228	12.2	11.37		1.37	1.00	0.537	pCi/L

LCSD LCSD

Carrier	%Yield	Qualifier	Limits	
Ba Carrier	95.6		40	- 110
Y Carrier	82.6		40	- 110

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128108-2

Rad

Prep Batch: 531422

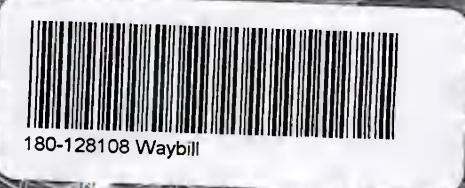
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total/NA	Water	PrecSep-21	
180-128108-2	BAW-1	Total/NA	Water	PrecSep-21	
180-128108-3	BAW-4	Total/NA	Water	PrecSep-21	
MB 160-531422/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-531422/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-531422/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 531585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128108-1	BAW-7	Total/NA	Water	PrecSep_0	
180-128108-2	BAW-1	Total/NA	Water	PrecSep_0	
180-128108-3	BAW-4	Total/NA	Water	PrecSep_0	
MB 160-531585/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-531585/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-531585/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Chain of Custody Record

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Chain of Custody Record

3001 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analysis & 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.

Possible Hazard Identification

Jconfirmed _____ Deliverable Requested: I, II, III, IV, Other (specify)

Emergency Kit Relinquished by _____

Digitized by srujanika@gmail.com

Date/Time: 1-12-2013

二二四

Date/Time:
Enriched by:

EEDO

Date/time:
Enquiries by:

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Custody Seal Intact: Yes No
Custody Seal No.: N/A

△ 125 △ 126 △ 127

ICOC No:
180-446272

Containers

<u>Count</u>	<u>Container Type</u>	<u>Preservative</u>
6	Plastic 1 liter - Nitric Acid	Nitric Acid

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-128108-2

Login Number: 128108

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: 180-128108-2

Login Number: 128108

List Source: Eurofins TestAmerica, St. Louis

List Number: 2

List Creation: 10/08/21 07:31 PM

Creator: Mazariegos, Leonel A

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	



eurofins

Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-128264-1

Client Project/Site: Plant Daniel Ash Pond B

For:

Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
11/17/2021 7:17:18 AM

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

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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 Daniel Ash Pond B

Job ID: 180-128264-1

Job ID: 180-128264-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-128264-1

Comments

No additional comments.

Receipt

The samples were received on 10/8/2021 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 4.0° C, 4.1° C, 4.8° C, 4.8° C and 5.0° C.

GC Semi VOA

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

Metals

Method 6020B: The continuing calibration verification (CCV) associated with batch 180-377546 recovered above the upper control limit for boron. The samples associated with this CCV were non-detects/batch QC for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCB 180-377546/71), (CCV 180-377546/70), (180-128264-E-19-E MS), (180-128264-E-19-F MSD), (180-128264-E-19-D PDS) and (180-128264-E-19-D SD ^5).

No additional analytical or quality issues were noted, other than those described above or 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 Daniel Ash Pond B

Job ID: 180-128264-1

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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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 Daniel Ash Pond B

Job ID: 180-128264-1

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	11-11-21
Georgia	State	PA 02-00416	11-11-21
Illinois	NELAP	004375	11-11-21
Kansas	NELAP	E-10350	11-11-21
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	11-11-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	11-11-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	11-11-21
New York	NELAP	11182	11-11-21
North Carolina (WW/SW)	State	434	11-11-21
North Dakota	State	R-227	11-11-21
Oregon	NELAP	PA-2151	11-11-21
Pennsylvania	NELAP	02-00416	11-11-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	11-11-21
Texas	NELAP	T104704528	11-11-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	11-11-21
Virginia	NELAP	10043	11-11-21
West Virginia DEP	State	142	11-11-21
Wisconsin	State	998027800	11-11-21

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

Sample Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-128264-13	BAW-5	Water	10/06/21 07:15	10/08/21 09:15
180-128264-14	BAW-8	Water	10/06/21 08:20	10/08/21 09:15
180-128264-15	DUP-3	Water	10/06/21 07:20	10/08/21 09:15
180-128264-16	BAW-9	Water	10/06/21 09:30	10/08/21 09:15
180-128264-17	EB-02	Water	10/06/21 09:00	10/08/21 09:15
180-128264-18	BAW-3	Water	10/06/21 10:20	10/08/21 09:15
180-128264-19	FB-02	Water	10/06/21 10:25	10/08/21 09:15
180-128264-20	BAW-2A	Water	10/06/21 11:05	10/08/21 09:15

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

Protocol References:

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

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: BAW-5

Date Collected: 10/06/21 07:15

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-13

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 9056A		1			374655	10/09/21 16:51	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:05	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:10	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374821	10/11/21 15:15	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-8

Date Collected: 10/06/21 08:20

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-14

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 9056A		1			374655	10/09/21 17:40	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:09	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:14	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374821	10/11/21 15:15	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: DUP-3

Date Collected: 10/06/21 07:20

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			374655	10/09/21 17:57	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:12	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:15	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374821	10/11/21 15:15	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: BAW-9

Lab Sample ID: 180-128264-16

Matrix: Water

Date Collected: 10/06/21 09:30

Date Received: 10/08/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			374655	10/09/21 15:14	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:16	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:16	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374821	10/11/21 15:15	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EB-02

Lab Sample ID: 180-128264-17

Matrix: Water

Date Collected: 10/06/21 09:00

Date Received: 10/08/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			374655	10/09/21 14:41	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:19	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:17	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374941	10/12/21 12:05	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Lab Sample ID: 180-128264-18

Matrix: Water

Date Collected: 10/06/21 10:20

Date Received: 10/08/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			374655	10/09/21 18:13	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:23	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:18	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374941	10/12/21 12:05	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: FB-02

Date Collected: 10/06/21 10:25

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-19

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 9056A		1			374655	10/09/21 14:57	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:27	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:19	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374941	10/12/21 12:05	KMM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-2A

Date Collected: 10/06/21 11:05

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-20

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 9056A		1			374655	10/09/21 18:29	J1T	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	376441	10/26/21 09:00	MM1	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			376786	10/27/21 12:30	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Prep	7470A			25 mL	25 mL	375391	10/15/21 09:25	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			376132	10/21/21 10:20	RJR	TAL PIT
		Instrument ID: HGY								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374941	10/12/21 12:05	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

MM1 = Mary Beth Miller

Batch Type: Analysis

J1T = Jianwu Tang

KMM = Kendric Moore

RJR = Ron Rosenbaum

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: BAW-5

Date Collected: 10/06/21 07:15
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-13

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.44		1.00	0.713	mg/L			10/09/21 16:51	1
Fluoride	0.0725 J		0.100	0.0260	mg/L			10/09/21 16:51	1
Sulfate	14.5		1.00	0.756	mg/L			10/09/21 16:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/26/21 09:00	10/27/21 12:05	1
Arsenic	0.0125		0.00100	0.000313	mg/L		10/26/21 09:00	10/27/21 12:05	1
Barium	0.0493		0.0100	0.00160	mg/L		10/26/21 09:00	10/27/21 12:05	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/26/21 09:00	10/27/21 12:05	1
Boron	0.272		0.0800	0.0386	mg/L		10/26/21 09:00	10/27/21 12:05	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/26/21 09:00	10/27/21 12:05	1
Calcium	22.8		0.500	0.127	mg/L		10/26/21 09:00	10/27/21 12:05	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/26/21 09:00	10/27/21 12:05	1
Cobalt	0.000802		0.000500	0.000134	mg/L		10/26/21 09:00	10/27/21 12:05	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/26/21 09:00	10/27/21 12:05	1
Lithium	0.0994		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:05	1
Molybdenum	0.00364 J		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:05	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:05	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:05	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	114		10.0	10.0	mg/L			10/11/21 15:15	1

Client Sample ID: BAW-8

Date Collected: 10/06/21 08:20
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-14

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.3		1.00	0.713	mg/L			10/09/21 17:40	1
Fluoride	0.0341 J		0.100	0.0260	mg/L			10/09/21 17:40	1
Sulfate	21.8		1.00	0.756	mg/L			10/09/21 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/26/21 09:00	10/27/21 12:09	1
Arsenic	0.00401		0.00100	0.000313	mg/L		10/26/21 09:00	10/27/21 12:09	1
Barium	0.0484		0.0100	0.00160	mg/L		10/26/21 09:00	10/27/21 12:09	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/26/21 09:00	10/27/21 12:09	1
Boron	0.629		0.0800	0.0386	mg/L		10/26/21 09:00	10/27/21 12:09	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/26/21 09:00	10/27/21 12:09	1
Calcium	15.6		0.500	0.127	mg/L		10/26/21 09:00	10/27/21 12:09	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/26/21 09:00	10/27/21 12:09	1
Cobalt	0.000768		0.000500	0.000134	mg/L		10/26/21 09:00	10/27/21 12:09	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/26/21 09:00	10/27/21 12:09	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: BAW-8

Lab Sample ID: 180-128264-14

Matrix: Water

Date Collected: 10/06/21 08:20

Date Received: 10/08/21 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0533		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:09	1
Molybdenum	0.00347 J		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:09	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:09	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:09	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	112		10.0	10.0	mg/L		10/11/21 15:15		1

Client Sample ID: DUP-3

Lab Sample ID: 180-128264-15

Matrix: Water

Date Collected: 10/06/21 07:20

Date Received: 10/08/21 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.4		1.00	0.713	mg/L			10/09/21 17:57	1
Fluoride	0.0328 J		0.100	0.0260	mg/L			10/09/21 17:57	1
Sulfate	20.1		1.00	0.756	mg/L			10/09/21 17:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/26/21 09:00	10/27/21 12:12	1
Arsenic	0.00369		0.00100	0.000313	mg/L		10/26/21 09:00	10/27/21 12:12	1
Barium	0.0460		0.0100	0.00160	mg/L		10/26/21 09:00	10/27/21 12:12	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/26/21 09:00	10/27/21 12:12	1
Boron	0.610		0.0800	0.0386	mg/L		10/26/21 09:00	10/27/21 12:12	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/26/21 09:00	10/27/21 12:12	1
Calcium	15.1		0.500	0.127	mg/L		10/26/21 09:00	10/27/21 12:12	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/26/21 09:00	10/27/21 12:12	1
Cobalt	0.000782		0.000500	0.000134	mg/L		10/26/21 09:00	10/27/21 12:12	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/26/21 09:00	10/27/21 12:12	1
Lithium	0.0522		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:12	1
Molybdenum	0.00328 J		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:12	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:12	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:12	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	117		10.0	10.0	mg/L		10/11/21 15:15		1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: BAW-9

Lab Sample ID: 180-128264-16

Matrix: Water

Date Collected: 10/06/21 09:30
Date Received: 10/08/21 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.46		1.00	0.713	mg/L			10/09/21 15:14	1
Fluoride	0.0901 J		0.100	0.0260	mg/L			10/09/21 15:14	1
Sulfate	8.27		1.00	0.756	mg/L			10/09/21 15:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/26/21 09:00	10/27/21 12:16	1
Arsenic	0.00846		0.00100	0.000313	mg/L		10/26/21 09:00	10/27/21 12:16	1
Barium	0.0574		0.0100	0.00160	mg/L		10/26/21 09:00	10/27/21 12:16	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/26/21 09:00	10/27/21 12:16	1
Boron	0.377		0.0800	0.0386	mg/L		10/26/21 09:00	10/27/21 12:16	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/26/21 09:00	10/27/21 12:16	1
Calcium	17.5		0.500	0.127	mg/L		10/26/21 09:00	10/27/21 12:16	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/26/21 09:00	10/27/21 12:16	1
Cobalt	0.000504		0.000500	0.000134	mg/L		10/26/21 09:00	10/27/21 12:16	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/26/21 09:00	10/27/21 12:16	1
Lithium	0.0726		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:16	1
Molybdenum	0.00587		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:16	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:16	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	93.0		10.0	10.0	mg/L			10/11/21 15:15	1

Client Sample ID: EB-02

Lab Sample ID: 180-128264-17

Matrix: Water

Date Collected: 10/06/21 09:00
Date Received: 10/08/21 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/09/21 14:41	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/09/21 14:41	1
Sulfate	<0.756		1.00	0.756	mg/L			10/09/21 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/26/21 09:00	10/27/21 12:19	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		10/26/21 09:00	10/27/21 12:19	1
Barium	<0.00160		0.0100	0.00160	mg/L		10/26/21 09:00	10/27/21 12:19	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/26/21 09:00	10/27/21 12:19	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/26/21 09:00	10/27/21 12:19	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		10/26/21 09:00	10/27/21 12:19	1
Calcium	<0.127		0.500	0.127	mg/L		10/26/21 09:00	10/27/21 12:19	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/26/21 09:00	10/27/21 12:19	1
Cobalt	<0.000134		0.000500	0.000134	mg/L		10/26/21 09:00	10/27/21 12:19	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/26/21 09:00	10/27/21 12:19	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: EB-02

Lab Sample ID: 180-128264-17

Matrix: Water

Date Collected: 10/06/21 09:00

Date Received: 10/08/21 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:19	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:19	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:19	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L		10/12/21 12:05		1

Client Sample ID: BAW-3

Lab Sample ID: 180-128264-18

Matrix: Water

Date Collected: 10/06/21 10:20

Date Received: 10/08/21 09:15

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.80		1.00	0.713	mg/L			10/09/21 18:13	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/09/21 18:13	1
Sulfate	5.07		1.00	0.756	mg/L			10/09/21 18:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		10/26/21 09:00	10/27/21 12:23	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		10/26/21 09:00	10/27/21 12:23	1
Barium	0.0300		0.0100	0.00160	mg/L		10/26/21 09:00	10/27/21 12:23	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		10/26/21 09:00	10/27/21 12:23	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/26/21 09:00	10/27/21 12:23	1
Cadmium	0.000338 J		0.00100	0.000217	mg/L		10/26/21 09:00	10/27/21 12:23	1
Calcium	0.532		0.500	0.127	mg/L		10/26/21 09:00	10/27/21 12:23	1
Chromium	<0.00153		0.00200	0.00153	mg/L		10/26/21 09:00	10/27/21 12:23	1
Cobalt	0.00336		0.000500	0.000134	mg/L		10/26/21 09:00	10/27/21 12:23	1
Lead	<0.000128		0.00100	0.000128	mg/L		10/26/21 09:00	10/27/21 12:23	1
Lithium	<0.00339		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:23	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:23	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:23	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:23	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30.0		10.0	10.0	mg/L			10/12/21 12:05	1

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: FB-02

Date Collected: 10/06/21 10:25
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-19

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/09/21 14:57	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/09/21 14:57	1
Sulfate	<0.756		1.00	0.756	mg/L			10/09/21 14:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			10/26/21 09:00	10/27/21 12:27
Arsenic	<0.000313		0.00100	0.000313	mg/L			10/26/21 09:00	10/27/21 12:27
Barium	0.0404		0.0100	0.00160	mg/L			10/26/21 09:00	10/27/21 12:27
Beryllium	<0.000182		0.00100	0.000182	mg/L			10/26/21 09:00	10/27/21 12:27
Boron	0.114		0.0800	0.0386	mg/L			10/26/21 09:00	10/27/21 12:27
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/26/21 09:00	10/27/21 12:27
Calcium	0.583		0.500	0.127	mg/L			10/26/21 09:00	10/27/21 12:27
Chromium	<0.00153		0.00200	0.00153	mg/L			10/26/21 09:00	10/27/21 12:27
Cobalt	0.000784		0.000500	0.000134	mg/L			10/26/21 09:00	10/27/21 12:27
Lead	<0.000128		0.00100	0.000128	mg/L			10/26/21 09:00	10/27/21 12:27
Lithium	<0.00339		0.00500	0.00339	mg/L			10/26/21 09:00	10/27/21 12:27
Molybdenum	<0.000610		0.00500	0.000610	mg/L			10/26/21 09:00	10/27/21 12:27
Selenium	<0.00151		0.00500	0.00151	mg/L			10/26/21 09:00	10/27/21 12:27
Thallium	<0.000148		0.00100	0.000148	mg/L			10/26/21 09:00	10/27/21 12:27

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L			10/15/21 09:25	10/21/21 10:19

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			10/12/21 12:05	1

Client Sample ID: BAW-2A

Date Collected: 10/06/21 11:05
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-20

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.4		1.00	0.713	mg/L			10/09/21 18:29	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/09/21 18:29	1
Sulfate	5.37		1.00	0.756	mg/L			10/09/21 18:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L			10/26/21 09:00	10/27/21 12:30
Arsenic	<0.000313		0.00100	0.000313	mg/L			10/26/21 09:00	10/27/21 12:30
Barium	<0.00160		0.0100	0.00160	mg/L			10/26/21 09:00	10/27/21 12:30
Beryllium	<0.000182		0.00100	0.000182	mg/L			10/26/21 09:00	10/27/21 12:30
Boron	<0.0386		0.0800	0.0386	mg/L			10/26/21 09:00	10/27/21 12:30
Cadmium	<0.000217		0.00100	0.000217	mg/L			10/26/21 09:00	10/27/21 12:30
Calcium	<0.127		0.500	0.127	mg/L			10/26/21 09:00	10/27/21 12:30
Chromium	<0.00153		0.00200	0.00153	mg/L			10/26/21 09:00	10/27/21 12:30
Cobalt	<0.000134		0.000500	0.000134	mg/L			10/26/21 09:00	10/27/21 12:30
Lead	<0.000128		0.00100	0.000128	mg/L			10/26/21 09:00	10/27/21 12:30

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Client Sample ID: BAW-2A

Lab Sample ID: 180-128264-20

Matrix: Water

Date Collected: 10/06/21 11:05

Date Received: 10/08/21 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.00339		0.00500	0.00339	mg/L		10/26/21 09:00	10/27/21 12:30	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		10/26/21 09:00	10/27/21 12:30	1
Selenium	<0.00151		0.00500	0.00151	mg/L		10/26/21 09:00	10/27/21 12:30	1
Thallium	<0.000148		0.00100	0.000148	mg/L		10/26/21 09:00	10/27/21 12:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000130		0.000200	0.000130	mg/L		10/15/21 09:25	10/21/21 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	61.0		10.0	10.0	mg/L		10/12/21 12:05		1

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

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

Lab Sample ID: MB 180-377158/1-A

Matrix: Water

Analysis Batch: 377546

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 377158

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000378		0.00200	0.000378	mg/L		11/01/21 09:19	11/03/21 15:45	1
Arsenic	<0.000313		0.00100	0.000313	mg/L		11/01/21 09:19	11/03/21 15:45	1
Barium	<0.00160		0.0100	0.00160	mg/L		11/01/21 09:19	11/03/21 15:45	1
Beryllium	<0.000182		0.00100	0.000182	mg/L		11/01/21 09:19	11/03/21 15:45	1
Boron	<0.0386		0.0800	0.0386	mg/L		11/01/21 09:19	11/03/21 15:45	1
Cadmium	<0.000217		0.00100	0.000217	mg/L		11/01/21 09:19	11/03/21 15:45	1
Calcium	<0.127		0.500	0.127	mg/L		11/01/21 09:19	11/03/21 15:45	1
Chromium	<0.00153		0.00200	0.00153	mg/L		11/01/21 09:19	11/03/21 15:45	1
Cobalt	<0.000134		0.000500	0.000134	mg/L		11/01/21 09:19	11/03/21 15:45	1
Lead	<0.000128		0.00100	0.000128	mg/L		11/01/21 09:19	11/03/21 15:45	1
Lithium	<0.00339		0.00500	0.00339	mg/L		11/01/21 09:19	11/03/21 15:45	1
Molybdenum	<0.000610		0.00500	0.000610	mg/L		11/01/21 09:19	11/03/21 15:45	1
Selenium	<0.00151		0.00500	0.00151	mg/L		11/01/21 09:19	11/03/21 15:45	1
Thallium	<0.000148		0.00100	0.000148	mg/L		11/01/21 09:19	11/03/21 15:45	1

Lab Sample ID: LCS 180-377158/2-A

Matrix: Water

Analysis Batch: 377546

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 377158

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Antimony	0.250	0.2491		mg/L		100	80 - 120
Arsenic	1.00	0.9762		mg/L		98	80 - 120
Barium	1.00	1.016		mg/L		102	80 - 120
Beryllium	0.500	0.4960		mg/L		99	80 - 120
Boron	1.25	1.358		mg/L		109	80 - 120
Cadmium	0.500	0.5355		mg/L		107	80 - 120
Calcium	25.0	26.21		mg/L		105	80 - 120
Chromium	0.500	0.4929		mg/L		99	80 - 120
Cobalt	0.500	0.5067		mg/L		101	80 - 120
Lead	0.500	0.5140		mg/L		103	80 - 120
Lithium	0.500	0.4825		mg/L		97	80 - 120
Molybdenum	0.500	0.5200		mg/L		104	80 - 120
Selenium	1.00	1.039		mg/L		104	80 - 120
Thallium	1.00	1.043		mg/L		104	80 - 120

Lab Sample ID: 180-128264-19 MS

Matrix: Water

Analysis Batch: 377546

Client Sample ID: FB-02

Prep Type: Total Recoverable

Prep Batch: 377158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
									Limits
Antimony	<0.000378		0.250	0.2531		mg/L		101	75 - 125
Arsenic	<0.000313		1.00	1.023		mg/L		102	75 - 125
Barium	<0.00160		1.00	1.041		mg/L		104	75 - 125
Beryllium	<0.000182		0.500	0.5310		mg/L		106	75 - 125
Boron	<0.0386		1.25	1.417	^+	mg/L		113	75 - 125
Cadmium	<0.000217		0.500	0.5468		mg/L		109	75 - 125
Calcium	<0.127		25.0	27.19		mg/L		109	75 - 125
Chromium	<0.00153		0.500	0.5065		mg/L		101	75 - 125
Cobalt	<0.000134		0.500	0.5280		mg/L		106	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

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

Lab Sample ID: 180-128264-19 MS

Matrix: Water

Analysis Batch: 377546

Client Sample ID: FB-02
Prep Type: Total Recoverable
Prep Batch: 377158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Lead	0.000132	J	0.500	0.5114		mg/L	102	75 - 125	
Lithium	<0.00339		0.500	0.4901		mg/L	98	75 - 125	
Molybdenum	<0.000610		0.500	0.5424		mg/L	108	75 - 125	
Selenium	<0.00151		1.00	1.097		mg/L	110	75 - 125	
Thallium	0.000218	J	1.00	1.023		mg/L	102	75 - 125	

Lab Sample ID: 180-128264-19 MSD

Matrix: Water

Analysis Batch: 377546

Client Sample ID: FB-02
Prep Type: Total Recoverable
Prep Batch: 377158

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit
Antimony	<0.000378		0.250	0.2499		mg/L	100	75 - 125	1	20
Arsenic	<0.000313		1.00	1.025		mg/L	103	75 - 125	0	20
Barium	<0.00160		1.00	1.032		mg/L	103	75 - 125	1	20
Beryllium	<0.000182		0.500	0.5124		mg/L	102	75 - 125	4	20
Boron	<0.0386		1.25	1.445	^+	mg/L	116	75 - 125	2	20
Cadmium	<0.000217		0.500	0.5362		mg/L	107	75 - 125	2	20
Calcium	<0.127		25.0	26.96		mg/L	108	75 - 125	1	20
Chromium	<0.00153		0.500	0.5093		mg/L	102	75 - 125	1	20
Cobalt	<0.000134		0.500	0.5290		mg/L	106	75 - 125	0	20
Lead	0.000132	J	0.500	0.5204		mg/L	104	75 - 125	2	20
Lithium	<0.00339		0.500	0.5208		mg/L	104	75 - 125	6	20
Molybdenum	<0.000610		0.500	0.5403		mg/L	108	75 - 125	0	20
Selenium	<0.00151		1.00	1.047		mg/L	105	75 - 125	5	20
Thallium	0.000218	J	1.00	1.021		mg/L	102	75 - 125	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-374941/2

Matrix: Water

Analysis Batch: 374941

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	<10.0		10.0	10.0	mg/L	1		10/12/21 12:05	1

Lab Sample ID: LCS 180-374941/1

Matrix: Water

Analysis Batch: 374941

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Dissolved Solids	422	416.0		mg/L	99	80 - 120	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

HPLC/IC

Analysis Batch: 374655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total/NA	Water	EPA 9056A	
180-128264-14	BAW-8	Total/NA	Water	EPA 9056A	
180-128264-15	DUP-3	Total/NA	Water	EPA 9056A	
180-128264-16	BAW-9	Total/NA	Water	EPA 9056A	
180-128264-17	EB-02	Total/NA	Water	EPA 9056A	
180-128264-18	BAW-3	Total/NA	Water	EPA 9056A	
180-128264-19	FB-02	Total/NA	Water	EPA 9056A	
180-128264-20	BAW-2A	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 375391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total/NA	Water	7470A	
180-128264-14	BAW-8	Total/NA	Water	7470A	
180-128264-15	DUP-3	Total/NA	Water	7470A	
180-128264-16	BAW-9	Total/NA	Water	7470A	
180-128264-17	EB-02	Total/NA	Water	7470A	
180-128264-18	BAW-3	Total/NA	Water	7470A	
180-128264-19	FB-02	Total/NA	Water	7470A	
180-128264-20	BAW-2A	Total/NA	Water	7470A	

Analysis Batch: 376132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total/NA	Water	EPA 7470A	375391
180-128264-14	BAW-8	Total/NA	Water	EPA 7470A	375391
180-128264-15	DUP-3	Total/NA	Water	EPA 7470A	375391
180-128264-16	BAW-9	Total/NA	Water	EPA 7470A	375391
180-128264-17	EB-02	Total/NA	Water	EPA 7470A	375391
180-128264-18	BAW-3	Total/NA	Water	EPA 7470A	375391
180-128264-19	FB-02	Total/NA	Water	EPA 7470A	375391
180-128264-20	BAW-2A	Total/NA	Water	EPA 7470A	375391

Prep Batch: 376441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total Recoverable	Water	3005A	
180-128264-14	BAW-8	Total Recoverable	Water	3005A	
180-128264-15	DUP-3	Total Recoverable	Water	3005A	
180-128264-16	BAW-9	Total Recoverable	Water	3005A	
180-128264-17	EB-02	Total Recoverable	Water	3005A	
180-128264-18	BAW-3	Total Recoverable	Water	3005A	
180-128264-19	FB-02	Total Recoverable	Water	3005A	
180-128264-20	BAW-2A	Total Recoverable	Water	3005A	

Analysis Batch: 376786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total Recoverable	Water	EPA 6020B	376441
180-128264-14	BAW-8	Total Recoverable	Water	EPA 6020B	376441
180-128264-15	DUP-3	Total Recoverable	Water	EPA 6020B	376441
180-128264-16	BAW-9	Total Recoverable	Water	EPA 6020B	376441
180-128264-17	EB-02	Total Recoverable	Water	EPA 6020B	376441

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-1

Metals (Continued)

Analysis Batch: 376786 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-18	BAW-3	Total Recoverable	Water	EPA 6020B	376441
180-128264-19	FB-02	Total Recoverable	Water	EPA 6020B	376441
180-128264-20	BAW-2A	Total Recoverable	Water	EPA 6020B	376441

Prep Batch: 377158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-377158/1-A	Method Blank	Total Recoverable	Water	3005A	7
LCS 180-377158/2-A	Lab Control Sample	Total Recoverable	Water	3005A	8
180-128264-19 MS	FB-02	Total Recoverable	Water	3005A	9
180-128264-19 MSD	FB-02	Total Recoverable	Water	3005A	10

Analysis Batch: 377546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-377158/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	377158
LCS 180-377158/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	377158
180-128264-19 MS	FB-02	Total Recoverable	Water	EPA 6020B	377158
180-128264-19 MSD	FB-02	Total Recoverable	Water	EPA 6020B	377158

General Chemistry

Analysis Batch: 374821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total/NA	Water	SM 2540C	
180-128264-14	BAW-8	Total/NA	Water	SM 2540C	
180-128264-15	DUP-3	Total/NA	Water	SM 2540C	
180-128264-16	BAW-9	Total/NA	Water	SM 2540C	

Analysis Batch: 374941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-17	EB-02	Total/NA	Water	SM 2540C	
180-128264-18	BAW-3	Total/NA	Water	SM 2540C	
180-128264-19	FB-02	Total/NA	Water	SM 2540C	
180-128264-20	BAW-2A	Total/NA	Water	SM 2540C	
MB 180-374941/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-374941/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information		Sampler: <u>Philip Evans</u>	Lab PM: Brown, Shali	Carrier Tracking No(s)	COC No									
Client Contact:	Phone: <u>850-336-0522</u>	E-Mail: <u>shali.brown@eurofinset.com</u>			Page:									
SCS Contacts					Job #:									
Company: SCS														
Address: 3535 Colonnade Pkwy Bin S 530 EC	Due Date Requested:													
City: Birmingham	TAT Requested (days):													
State, Zip: Alabama														
Phone: 205.992.6283	PO #: SCS10382606													
Email: SCS Contacts	WO #:													
Project Name: Plant Daniel Ash Pond B	Project #: 18020047													
Site:	SSOW#:													
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab) BT=Tissue, AA=Air	Matrix (W=water, S=solid, O=waste/oil, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Perfomr MSD (Yes or No)	Custom 14 (Appli and IV) + Mercury	Chloride Fluoride and Sulfate	Total Dissolved Solids	Radium 226 Radium 228 + Combined	Total Number of Containers	Special Instructions/Note:	
MW-1	10/16/21	1515	G			X	X	X	X					
MW-2		1300												
MW-3		1345												
MW-4		1540												
MW-5		1615												
MW-6		1445												
MW-7		1220												
MW-8	10/16/21	1059	G	W		X	X	X	X					
MW-9		1220	G											
MW-10		1415	G											
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer)								
<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:	<u>Philip Evans</u>	Date/Time: <u>10/16/21 1700</u>	Company: <u>RDH</u>	Received by: <u>TR</u>	Date/Time: <u>10/16/21 1700</u>	Company: <u>RDH</u>								
Relinquished by:	<u>TR</u>	Date/Time: <u>10/17/21 1530</u>	Company: <u>RDH</u>	Received by: <u>DWates</u>	Date/Time: <u>10-8-21</u>	Company: <u>ETAPIT</u>								
Custody Seals Intact: △ Yes △ No	Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: <u>9.15</u>									

Chain of Custody Record

Chain of Custody Record

Chain of Custody Record

Client Information		Sampler:		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:						
Client Contact: SCS Contacts		Phone:		E-Mail: shali.brown@eurofinset.com						Page:				
Company: SCS						Analysis Requested		Job #:						
Address: 3535 Colonnade Pkwy Bin S 530 EC		Due Date Requested:						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:						
City: Birmingham		TAT Requested (days):												
State, Zip: Alabama														
Phone: 205.992.6283		PO #: SCS10382606												
Email: SCS Contacts		WO #:												
Project Name: Plant Daniel Ash Pond B (CCR)		Project #: 18020047												
Site:		SSOW#:												
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Custom 14 (Appli and IV) + Mercury	Chloride Fluoride and Sulfate	Total Dissolved Solids	Radium 226 Radium 228 + Combined	Total Number of containers	Special Instructions/Note:	
BAW-5		10/6/21	0715	G	W	X	X	X	X					
BAW-8		10/6/21	0820	G	W	X	X	X	X					
BAW-9		10/6/21	0930	G	W	X	X	X	X					
BAW-3		10/6/21	1020	G	W	X	X	X	X					
BAW-2A		10/6/21	1105	G	W	X	X	X	X					
DUP-3		10/6/21	0720	G	W	X	X	X	X					
EB-02		10/6/21	0900	G	W	X	X	X	X					
FB-02		10/6/21	1025	G	W	X	X	X	X					
Possible Hazard Identification						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"/> 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:			Date/Time:		Company		Received by:			Date/Time:		Company		
Relinquished by:			Date/Time:		Company		Received by:			Date/Time:		Company		
Relinquished by:			Date/Time:		Company		Received by:			Date/Time:		Company		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:								
Page 24 of 28 11/17/2021														

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180-128264 Waybill



ORIGIN ID:PNSA (850) 572-1067
TREVOR BRADDOCK
RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571
UNITED STATES US

SHIP DATE: 07 OCT 21
ACTWGT: 61.85 LB
CAD: 6894796/SSEE2220
DIMS: 26x14x13 IN
BILL THIRD PARTY

ORIGIN ID:PNSA (850) 572-1067
TREVOR BRADDOCK
RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571
UNITED STATES US

SHI ACTWGT: 77.00
ACT: 6894796/SSEF2220
CAD: 6894796/SSEE2220
DIMS: 26x14x13 IN
BILL THIRD PARTY

TO:

TEST AMERICA PITTSBURG
301 ALPHA DR

PITTSBURGH PA 15238

(666) 666-6666
THU
POI

REF:

DEPT:

FedEx
Express



20210708011W

4 of 6

MPS# 2846 4719 9115
0263

Metr# 2846 4719 9089

FRI - 08 OCT 1921 A
PRIORITY OVERNIGHT

0201

XH AGCA

1548
PA-US
PIT

Uncorrected temp
Thermometer ID

14.4 °C
8

CF 0 Initials M0

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

8 of 8
MPS# 2846 4719 9137
0263
Met# 2846 4719 9089
0201

XH AGCA

Uncorrected temp
Thermometer ID

CF 0 Initials M0

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

FedEx
Express



FRI - 08 OCT 1921 A
PRIORITY OVERNIGHT

AHS
15238
PIT

4.0 °C

9

Mo

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-128264-1

Login Number: 128264

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	



eurofins

Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 180-128264-2
Client Project/Site: Plant Daniel Ash Pond B

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
11/17/2021 7:26:27 AM
Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

LINKS

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results through

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The
Expert

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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 Daniel Ash Pond B

Job ID: 180-128264-2

Job ID: 180-128264-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-128264-2

Comments

No additional comments.

Receipt

The samples were received on 10/8/2021 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 4.0° C, 4.1° C, 4.8° C, 4.8° C and 5.0° C.

RAD

Method 9315: Radium 226 batch 531792

The LCS recovered at (73%). 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 (67-118) per method requirements. The LCS passes, no further action is required (LCS 160-531792/1-A)

Method 9315: Radium 226 batch 531792

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. BAW-5 (180-128264-13), BAW-8 (180-128264-14), DUP-3 (180-128264-15), BAW-9 (180-128264-16), EB-02 (180-128264-17), BAW-3 (180-128264-18), FB-02 (180-128264-19), BAW-2A (180-128264-20), (LCS 160-531792/1-A), (LCSD 160-531792/2-A) and (MB 160-531792/23-A)

Method 9320: Radium 228 batch 531797

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. BAW-5 (180-128264-13), BAW-8 (180-128264-14), DUP-3 (180-128264-15), BAW-9 (180-128264-16), EB-02 (180-128264-17), BAW-3 (180-128264-18), FB-02 (180-128264-19), BAW-2A (180-128264-20), (LCS 160-531797/1-A), (LCSD 160-531797/2-A) and (MB 160-531797/23-A)

Method PrecSep_0: Radium-228 Prep Batch 160-531797

The following samples were prepared at a reduced aliquot due to Matrix: BAW-8 (180-128264-14), DUP-3 (180-128264-15), EB-02 (180-128264-17), BAW-3 (180-128264-18), FB-02 (180-128264-19) and BAW-2A (180-128264-20). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-531797

Insufficient sample volume was available to perform a sample duplicate for the following samples: BAW-5 (180-128264-13) and BAW-9 (180-128264-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-531792

The following samples were prepared at a reduced aliquot due to Matrix: BAW-8 (180-128264-14), DUP-3 (180-128264-15), EB-02 (180-128264-17), BAW-3 (180-128264-18), FB-02 (180-128264-19) and BAW-2A (180-128264-20). 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 160-531792

Insufficient sample volume was available to perform a sample duplicate for the following samples: BAW-5 (180-128264-13) and BAW-9 (180-128264-16). 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: Plant Daniel Ash Pond B

Job ID: 180-128264-2

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.

¤	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 Daniel Ash Pond B

Job ID: 180-128264-2

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	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
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 Daniel Ash Pond B

Job ID: 180-128264-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-128264-13	BAW-5	Water	10/06/21 07:15	10/08/21 09:15
180-128264-14	BAW-8	Water	10/06/21 08:20	10/08/21 09:15
180-128264-15	DUP-3	Water	10/06/21 07:20	10/08/21 09:15
180-128264-16	BAW-9	Water	10/06/21 09:30	10/08/21 09:15
180-128264-17	EB-02	Water	10/06/21 09:00	10/08/21 09:15
180-128264-18	BAW-3	Water	10/06/21 10:20	10/08/21 09:15
180-128264-19	FB-02	Water	10/06/21 10:25	10/08/21 09:15
180-128264-20	BAW-2A	Water	10/06/21 11:05	10/08/21 09:15

Method Summary

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

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 Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: BAW-5

Date Collected: 10/06/21 07:15

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-13

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			1000.39 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			535806	11/10/21 07:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.39 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			535780	11/09/21 13:20	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			536228	11/12/21 01:12	EMH	TAL SL

Client Sample ID: BAW-8

Date Collected: 10/06/21 08:20

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-14

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			750.73 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			535806	11/10/21 07:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			750.73 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			535780	11/09/21 13:20	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			536228	11/12/21 01:12	EMH	TAL SL

Client Sample ID: DUP-3

Date Collected: 10/06/21 07:20

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.22 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			535806	11/10/21 07:59	FLC	TAL SL
Total/NA	Prep	PrecSep_0			750.22 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			535780	11/09/21 13:20	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			536228	11/12/21 01:12	EMH	TAL SL

Client Sample ID: BAW-9

Date Collected: 10/06/21 09:30

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.29 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			535806	11/10/21 08:00	FLC	TAL SL

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: BAW-9

Date Collected: 10/06/21 09:30

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.29 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320		1			535780	11/09/21 13:20	FLC	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			536228	11/12/21 01:12	EMH	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: EB-02

Date Collected: 10/06/21 09:00

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.09 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315		1			535806	11/10/21 08:00	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			750.09 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320		1			535780	11/09/21 13:20	FLC	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			536228	11/12/21 01:12	EMH	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: BAW-3

Date Collected: 10/06/21 10:20

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-18

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			749.47 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315		1			535806	11/10/21 08:00	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			749.47 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320		1			535780	11/09/21 13:20	FLC	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			536228	11/12/21 01:12	EMH	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: FB-02

Date Collected: 10/06/21 10:25

Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-19

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			750.35 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315		1			535806	11/10/21 08:00	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			750.35 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320		1			535780	11/09/21 13:20	FLC	TAL SL
		Instrument ID: GFPCPURPLE								

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Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: FB-02

Lab Sample ID: 180-128264-19

Matrix: Water

Date Collected: 10/06/21 10:25
Date Received: 10/08/21 09:15

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			536228	11/12/21 01:12	EMH	TAL SL

Client Sample ID: BAW-2A

Lab Sample ID: 180-128264-20

Matrix: Water

Date Collected: 10/06/21 11:05
Date Received: 10/08/21 09:15

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			750.43 mL	1.0 g	531792	10/14/21 10:14	BMP	TAL SL
Total/NA	Analysis	9315		1			535806	11/10/21 08:00	FLC	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			750.43 mL	1.0 g	531797	10/14/21 11:05	BMP	TAL SL
Total/NA	Analysis	9320		1			535780	11/09/21 13:21	FLC	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			536228	11/12/21 01:12	EMH	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

BMP = Bailey Pinette

Batch Type: Analysis

EMH = Elizabeth Hoerchner

FLC = Fernando Cruz

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: BAW-5

Lab Sample ID: 180-128264-13

Matrix: Water

Date Collected: 10/06/21 07:15

Date Received: 10/08/21 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.286	U	0.202	0.204	1.00	0.292	pCi/L	10/14/21 10:14	11/10/21 07:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/14/21 10:14	11/10/21 07:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.645		0.268	0.274	1.00	0.379	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/14/21 11:05	11/09/21 13:20	1
Y Carrier	84.5		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.931		0.336	0.342	5.00	0.379	pCi/L		11/12/21 01:12	1

Client Sample ID: BAW-8

Lab Sample ID: 180-128264-14

Matrix: Water

Date Collected: 10/06/21 08:20

Date Received: 10/08/21 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.353		0.244	0.247	1.00	0.344	pCi/L	10/14/21 10:14	11/10/21 07:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					10/14/21 10:14	11/10/21 07:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.110	U	0.275	0.275	1.00	0.476	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					10/14/21 11:05	11/09/21 13:20	1
Y Carrier	85.2		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: BAW-8

Date Collected: 10/06/21 08:20
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-14

Matrix: Water

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.463	U	0.368	0.370	5.00	0.476	pCi/L		11/12/21 01:12	1

Client Sample ID: DUP-3

Date Collected: 10/06/21 07:20
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.241	U	0.236	0.237	1.00	0.373	pCi/L	10/14/21 10:14	11/10/21 07:59	1
Carrier										
Ba Carrier	102	Qualifier	Limits					Prepared	Analyzed	Dil Fac
			40 - 110					10/14/21 10:14	11/10/21 07:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.864	U	0.343	0.352	1.00	0.477	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier										
Ba Carrier	102	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Y Carrier	86.4		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.10	U	0.416	0.424	5.00	0.477	pCi/L		11/12/21 01:12	1

Client Sample ID: BAW-9

Date Collected: 10/06/21 09:30
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.243	U	0.199	0.200	1.00	0.301	pCi/L	10/14/21 10:14	11/10/21 08:00	1
Carrier										
Ba Carrier	105	Qualifier	Limits					Prepared	Analyzed	Dil Fac
			40 - 110					10/14/21 10:14	11/10/21 08:00	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: BAW-9

Lab Sample ID: 180-128264-16

Matrix: Water

Date Collected: 10/06/21 09:30

Date Received: 10/08/21 09:15

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.574		0.252	0.257	1.00	0.358	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier										
Ba Carrier	105		40 - 110					10/14/21 11:05	11/09/21 13:20	1
Y Carrier	84.5		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.817		0.321	0.326	5.00	0.358	pCi/L	11/12/21 01:12		1

Client Sample ID: EB-02

Lab Sample ID: 180-128264-17

Matrix: Water

Date Collected: 10/06/21 09:00

Date Received: 10/08/21 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.131	U	0.156	0.157	1.00	0.389	pCi/L	10/14/21 10:14	11/10/21 08:00	1
Carrier										
Ba Carrier	90.4		40 - 110					10/14/21 10:14	11/10/21 08:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.151	U	0.265	0.265	1.00	0.453	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier										
Ba Carrier	90.4		40 - 110					10/14/21 11:05	11/09/21 13:20	1
Y Carrier	85.6		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.0202	U	0.308	0.308	5.00	0.453	pCi/L	11/12/21 01:12		1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: BAW-3

Lab Sample ID: 180-128264-18

Matrix: Water

Date Collected: 10/06/21 10:20

Date Received: 10/08/21 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.311	U	0.254	0.255	1.00	0.381	pCi/L	10/14/21 10:14	11/10/21 08:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.7		40 - 110					10/14/21 10:14	11/10/21 08:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.192	U	0.264	0.264	1.00	0.441	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.7		40 - 110					10/14/21 11:05	11/09/21 13:20	1
Y Carrier	86.7		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.503		0.366	0.367	5.00	0.441	pCi/L		11/12/21 01:12	1

Client Sample ID: FB-02

Lab Sample ID: 180-128264-19

Matrix: Water

Date Collected: 10/06/21 10:25

Date Received: 10/08/21 09:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.189	U	0.282	0.282	1.00	0.480	pCi/L	10/14/21 10:14	11/10/21 08:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110					10/14/21 10:14	11/10/21 08:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.516	U	0.366	0.369	1.00	0.573	pCi/L	10/14/21 11:05	11/09/21 13:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110					10/14/21 11:05	11/09/21 13:20	1
Y Carrier	85.2		40 - 110					10/14/21 11:05	11/09/21 13:20	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Client Sample ID: FB-02

Date Collected: 10/06/21 10:25
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-19

Matrix: Water

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.705		0.462	0.464	5.00	0.573	pCi/L		11/12/21 01:12	1

Client Sample ID: BAW-2A

Date Collected: 10/06/21 11:05
Date Received: 10/08/21 09:15

Lab Sample ID: 180-128264-20

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.363	U	0.325	0.327	1.00	0.507	pCi/L	10/14/21 10:14	11/10/21 08:00	1
Carrier										
Ba Carrier	91.7	Qualifier	Limits					Prepared	Analyzed	Dil Fac
			40 - 110					10/14/21 10:14	11/10/21 08:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.574		0.335	0.339	1.00	0.500	pCi/L	10/14/21 11:05	11/09/21 13:21	1
Carrier										
Ba Carrier	91.7	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Y Carrier	88.6		40 - 110					10/14/21 11:05	11/09/21 13:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.937		0.467	0.471	5.00	0.507	pCi/L		11/12/21 01:12	1

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-531792/23-A

Matrix: Water

Analysis Batch: 535808

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 531792

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	0.1750	U		0.199	0.200	1.00	0.325	pCi/L	10/14/21 10:14	11/10/21 08:01	1
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits					Prepared	Analyzed	Dil Fac
	99.2			40 - 110					10/14/21 10:14	11/10/21 08:01	1

Lab Sample ID: LCS 160-531792/1-A

Matrix: Water

Analysis Batch: 535779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 531792

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	%Rec	%Rec.	Limits
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	0.1750	U		0.199	0.200	1.00	0.325	pCi/L	73	75 - 125	
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits							
	99.2			40 - 110							

Lab Sample ID: LCSD 160-531792/2-A

Matrix: Water

Analysis Batch: 535779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 531792

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	%Rec	%Rec.	RER
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-226	0.1750	U		0.199	0.200	1.00	0.325	pCi/L	73	75 - 125	1
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits							
	99.2			40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-531797/23-A

Matrix: Water

Analysis Batch: 535780

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 531797

Analyte	MB	MB	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Uncert.		(2σ+/-)	Uncert.						
Radium-228	0.8979	U		0.300	0.311	1.00	0.406	pCi/L	10/14/21 11:05	11/09/21 13:21	1
Carrier	MB	MB									
<i>Ba Carrier</i>	%Yield	Qualifier		Limits					Prepared	Analyzed	Dil Fac
	99.2			40 - 110					10/14/21 11:05	11/09/21 13:21	1
<i>Y Carrier</i>				87.1	40 - 110				10/14/21 11:05	11/09/21 13:21	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

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

Lab Sample ID: LCS 160-531797/1-A

Matrix: Water

Analysis Batch: 535779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 531797

Analyte	Spike Added	Total			%Rec.	Limits	
		LCS Result	LCS Qual	Uncert. (2σ+/-)			
Radium-228	9.16	10.69		1.23	1.00	0.402	pCi/L

LCS LCS

Carrier	%Yield	Qualifier	Limits	
Ba Carrier	99.0		40	- 110
Y Carrier	81.9		40	- 110

Lab Sample ID: LCSD 160-531797/2-A

Matrix: Water

Analysis Batch: 535779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 531797

Analyte	Spike Added	Total			RER	Limit	
		LCSD Result	LCSD Qual	Uncert. (2σ+/-)			
Radium-228	9.16	9.193		1.06	1.00	0.322	pCi/L

LCSD LCSD

Carrier	%Yield	Qualifier	Limits	
Ba Carrier	104		40	- 110
Y Carrier	85.6		40	- 110

QC Association Summary

Client: Southern Company

Project/Site: Plant Daniel Ash Pond B

Job ID: 180-128264-2

Rad

Prep Batch: 531792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total/NA	Water	PrecSep-21	5
180-128264-14	BAW-8	Total/NA	Water	PrecSep-21	6
180-128264-15	DUP-3	Total/NA	Water	PrecSep-21	7
180-128264-16	BAW-9	Total/NA	Water	PrecSep-21	8
180-128264-17	EB-02	Total/NA	Water	PrecSep-21	9
180-128264-18	BAW-3	Total/NA	Water	PrecSep-21	10
180-128264-19	FB-02	Total/NA	Water	PrecSep-21	11
180-128264-20	BAW-2A	Total/NA	Water	PrecSep-21	12

Prep Batch: 531797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128264-13	BAW-5	Total/NA	Water	PrecSep_0	13
180-128264-14	BAW-8	Total/NA	Water	PrecSep_0	1
180-128264-15	DUP-3	Total/NA	Water	PrecSep_0	2
180-128264-16	BAW-9	Total/NA	Water	PrecSep_0	3
180-128264-17	EB-02	Total/NA	Water	PrecSep_0	4
180-128264-18	BAW-3	Total/NA	Water	PrecSep_0	5
180-128264-19	FB-02	Total/NA	Water	PrecSep_0	6
180-128264-20	BAW-2A	Total/NA	Water	PrecSep_0	7

Chain of Custody Record

Chain of Custody Record

Client Information		Sampler: <u>Philip Evans</u>	Lab PM: <u>Brown, Shali</u>	Carrier Tracking No(s):	COC No:								
Client Contact: SCS Contacts		Phone: <u>850-336-0192</u>	E-Mail: <u>shali.brown@eurofinset.com</u>		Page:								
Company: SCS		Analysis Requested											
Address: 3535 Colonnade Pkwy Bin S 530 EC		Due Date Requested:											
City: Birmingham		TAT Requested (days):											
State, Zip: Alabama													
Phone: 205.992.6283		PO #: SCS10382606											
Email: SCS Contacts		WO #:											
Project Name: Plant Daniel Ash Pond B		Project #: 18020047											
Site:		SSOW#:											
Sample Identification		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)	Perform MS/MSD (Yes or No)	Custom 14 (Appill and IV) + Mercury	Chloride Fluoride and Sulfate	Total Dissolved Solids	Radium 226 Radium 228 + Combined	Total Number of containers	Special Instructions/Note:
						X	X						
BAW-5		10/6/21	0715	G	W		X	X	X				
BAW-8			0820										
DU-03			0720										
BAW-9			0930										
EB-02			0900										
BAW-3			1020										
FB-02			1025	V	V			V	V	V	V		
BAW-2A		10/6/21	1105	G	W		X	X	X	X			
Possible Hazard Identification												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"/> 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: <u>W</u>		Date/Time: <u>10/6/21 1700</u>		Company: <u>RDH</u>		Received by: <u>Shali</u>		Date/Time: <u>10/6/21 1700</u>		Company: <u>RDH</u>			
Relinquished by: <u>T</u>		Date/Time: <u>10/7/21 1530</u>		Company: <u>RDH</u>		Received by: <u>DW</u>		Date/Time: <u>10-8-21</u>		Company: <u>RDH</u>			
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: <u>9/5</u>									

Chain of Custody Record

Chain of Custody Record

Client Information		Sampler:		Lab PM: Brown, Shali		Carrier Tracking No(s):		COC No:					
Client Contact: SCS Contacts		Phone:		E-Mail: shali.brown@eurofinset.com						Page:			
Company: SCS						Analysis Requested		Job #:					
Address: 3535 Colonnade Pkwy Bin S 530 EC		Due Date Requested:								Preservation Codes:			
City: Birmingham		TAT Requested (days):								A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA			
State, Zip: Alabama										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)			
Phone: 205.992.6283		PO #: SCS10382606								Other:			
Email: SCS Contacts		WO #:											
Project Name: Plant Daniel Ash Pond B (CCR)		Project #: 18020047											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Custom 14 (Apill) and IV + Mercury	Chloride Fluoride and Sulfate	Total Dissolved Solids	Radium 226 Radium 228 + Combined	Total Number of containers	Special Instructions/Note:
		BAW-5	10/6/21	0715	G	W	X	X	X	X			
BAW-8	10/6/21	0820	G	W		X	X	X	X				
BAW-9	10/6/21	0930	G	W		X	X	X	X				
BAW-3	10/6/21	1020	G	W		X	X	X	X				
BAW-2A	10/6/21	1105	G	W		X	X	X	X				
DUP-3	10/6/21	0720	G	W		X	X	X	X				
EB-02	10/6/21	0900	G	W		X	X	X	X				
FB-02	10/6/21	1025	G	W		X	X	X	X				
Possible Hazard Identification						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"/> 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:			Date/Time:		Company		Received by:		Date/Time:		Company		
Relinquished by:			Date/Time:		Company		Received by:		Date/Time:		Company		
Relinquished by:			Date/Time:		Company		Received by:		Date/Time:		Company		
Custody Seals Intact:		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													

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180-128264 Waybill



ORIGIN ID:PNSA (850) 572-1067
TREVOR BRADDOCK
RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571
UNITED STATES US

SHIP DATE: 07 OCT 21
ACTWGT: 61.85 LB
CAD: 6894796/SSEE2220
DIMS: 26x14x13 IN
BILL THIRD PARTY

ORIGIN ID:PNSA (850) 572-1067
TREVOR BRADDOCK
RDH ENVIRONMENTAL
5720 DOVE DR
PACE, FL 32571
UNITED STATES US

SHI ACTWGT: 77.00
ACT: 6894796/SSEF2220
CAD: 6894796/SSEE2220
DIMS: 26x14x13 IN
BILL THIRD PARTY

TO:

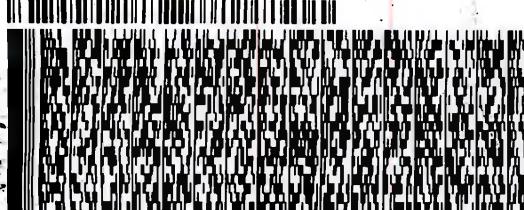
TEST AMERICA PITTSBURG
301 ALPHA DR

PITTSBURGH PA 15238

(666) 666-6666

REF:

DEPT:



FedEx
Express



20210708011W

4 of 6

MPS# 2846 4719 9115
0263

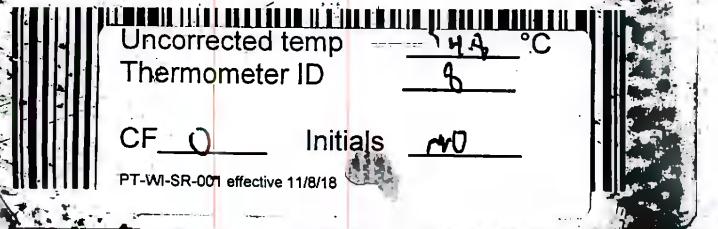
Metr# 2846 4719 9089

FRI - 08 OCT 1921 A
PRIORITY OVERNIGHT

0201

XH AGCA

1548
PA-US
PIT

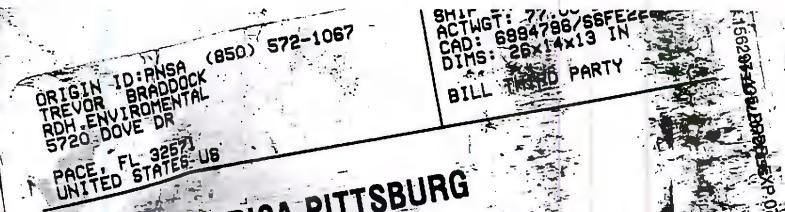


Uncorrected temp
Thermometer ID

14.4 °C
8

CF 0 Initials M0

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



TO:
TEST AMERICA PITTSBURG
301 ALPHA DR

PITTSBURGH PA 15238

(666) 666-6666
INU:
POI:

DEPT:

FedEx
Express



20210708011W

8 of 8
MPS# 2846 4719 9137
0263
Met# 2846 4719 9089
0201

FRI - 08 OCT 1921 A
PRIORITY OVERNIGHT

AHS
15238
PIT

4.0 °C

8

M0

XH AGCA

Uncorrected temp
Thermometer ID

CF 0

Initials M0

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





Eurofins TestAmerica, Pittsburgh

3001 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412.963.7059 Fax: 412.963.2469

Chain of Custody Record

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analytic & 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 being analyzed, the samples must be shipped back to Eurofins TestAmerica or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica immediately.

Possible Hazard Identification

Eurofins TestAmerica, Pittsburgh

3001 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analytic & 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 or 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, attention to Eurofins TestAmerica.

Possible Hazard Identification

Unconfirmed			
Deliverable Requested: I, II, III, IV, Other (Specify)		Primary Deliverable Rank 2	
Empty Kit Relinquished by: <i>M6</i>		Date: <i>10-11-21</i>	Time: <i>1700</i>
Relinquished by <i>FED EX</i>	Relinquished by <i>FEDEX</i>	Received by <i>Michael Kenning</i>	Method of Shipment <i>FEDEX</i>
Relinquished by <i>FEDEX</i>	Relinquished by <i>FEDEX</i>	Received by <i>Michael Kenning</i>	Date/Time <i>2021-10-11T17:00:00</i>
Relinquished by <i>FEDEX</i>	Relinquished by <i>FEDEX</i>	Received by <i>Michael Kenning</i>	Date/Time <i>2021-10-11T17:00:00</i>
		Special Instructions/QC Requirements:	
		<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
		<input type="checkbox"/> Archive For	Months
		<i>Samples are retained longer than 1 month</i>	

Eurofins TestAmerica, Pittsburgh

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:	Lab PM	Carrier Tracking No(s)	COC No.
Client Contact	Phone	Brown, Shali	E-Mail	Shali.Brown@EurofinsTest.com	180-446540-2
Shipping/Receiving Company					Page 2 of 2
TestAmerica Laboratories, Inc.					Job #
Address	13715 Rider Trail North, .	Due Date Requested: 11/10/2021	Analysis Requested		
City	Earth City	TAT Requested (days):			
State, Zip	MO, 63045				
Phone	314-298-8566(Tel) 314-298-8757(Fax)	PO #			
Email		WO #			
Project Name	Plant Daniel Ash Pond B	Project #:			
Plant	Daniel Ash Pond B	18020047			
Site	SSOW#				
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=water, S=solid, O=water/soln, B=buffer, A=Au)
FB-02 (180-128264-19)		10/6/21	10:25 Central	Water	X X X
BAW-2A (180-128264-20)		10/6/21	11:05 Central	Water	X X X
Total Number of containers					
Preservation Codes:					
A - HCl M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2S2O3 F - MeOH R - Na2S2O3 G - Anchior S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ce U - Acetone J - Di Water V - NMCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:					
Special Instructions/Note:					
<input checked="" type="checkbox"/> Perform MSDS Sample (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Total Filtration Precisep_0 Standard Target List					
RA226RA228_GFPC 9320_RA228P_PrecSep_0_Redium 225 9315_RA226P_PrecSep_27_Redium 225					

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analysis & 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/this 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

<i>No</i>	Unconfirmed	<input type="checkbox"/> Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months
Empty Kit Reinforced by:	Date:	Time:
Reinforced by:	Date/Time:	Company
Reinforced by:	Date/Time:	Company
Reinforced by:	Date/Time:	Company
Custody Seals intact	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes	Δ No	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-128264-2

Login Number: 128264

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: 180-128264-2

Login Number: 128264

List Source: Eurofins TestAmerica, St. Louis

List Number: 2

List Creation: 10/12/21 04:16 PM

Creator: Korrinhizer, Micha L

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	

Low-Flow Test Report:

Test Date / Time: 10/5/2021 11:52:04 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-1 Well Diameter: 2 in Screen Length: 5 ft Top of Screen: 55.6 ft Total Depth: 60.6 ft Initial Depth to Water: 43 m	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 58.1 ft Estimated Total Volume Pumped: 10000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 1220. Pc 85.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 11:52 AM	00:00	8.34 pH	25.06 °C	37.53 µS/cm	6.43 mg/L	1.72 NTU	90.4 mV	43.04 ft	400.00 ml/min
10/5/2021 11:57 AM	05:00	5.51 pH	23.42 °C	39.76 µS/cm	5.21 mg/L	1.54 NTU	82.9 mV	43.04 ft	400.00 ml/min
10/5/2021 12:02 PM	10:00	5.13 pH	23.31 °C	39.91 µS/cm	5.17 mg/L	1.48 NTU	81.5 mV	43.04 ft	400.00 ml/min
10/5/2021 12:07 PM	15:00	5.05 pH	23.09 °C	39.68 µS/cm	5.22 mg/L	1.49 NTU	81.2 mV	43.04 ft	400.00 ml/min
10/5/2021 12:12 PM	20:00	5.02 pH	23.06 °C	39.44 µS/cm	5.25 mg/L	1.50 NTU	82.1 mV	43.04 ft	400.00 ml/min
10/5/2021 12:17 PM	25:00	5.00 pH	23.10 °C	39.31 µS/cm	5.26 mg/L	1.52 NTU	83.1 mV	43.04 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-1	Sample time @ 1220. Pc 85.

Low-Flow Test Report:

Test Date / Time: 10/6/2021 10:47:38 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-2A Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 57.2 ft Total Depth: 67.2 ft Initial Depth to Water: 55.55 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 62.2 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.02 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 1105. Cloudy 85.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/6/2021 10:47 AM	00:00	5.34 pH	25.03 °C	31.15 µS/cm	8.02 mg/L	0.96 NTU	89.3 mV	55.57 ft	400.00 ml/min
10/6/2021 10:52 AM	05:00	4.79 pH	23.27 °C	80.56 µS/cm	0.44 mg/L	0.83 NTU	103.8 mV	55.57 ft	400.00 ml/min
10/6/2021 10:57 AM	10:00	4.77 pH	23.14 °C	80.12 µS/cm	0.36 mg/L	0.79 NTU	105.6 mV	55.57 ft	400.00 ml/min
10/6/2021 11:02 AM	15:00	4.77 pH	23.07 °C	79.47 µS/cm	0.45 mg/L	0.75 NTU	106.1 mV	55.57 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-2A	Sample time @ 1105. Cloudy 85.

Low-Flow Test Report:

Test Date / Time: 10/6/2021 9:57:26 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-3 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 58.4 ft Total Depth: 68.4 ft Initial Depth to Water: 54.05 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 63.4 ft Estimated Total Volume Pumped: 8000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.03 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 1020. Cloudy 82. FB-02@ 1025.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/6/2021 9:57 AM	00:00	5.87 pH	24.08 °C	42.99 µS/cm	2.92 mg/L	1.89 NTU	61.7 mV	54.08 ft	400.00 ml/min
10/6/2021 10:02 AM	05:00	4.92 pH	23.65 °C	42.09 µS/cm	0.23 mg/L	1.62 NTU	69.3 mV	54.08 ft	400.00 ml/min
10/6/2021 10:07 AM	10:00	4.73 pH	23.58 °C	41.92 µS/cm	0.18 mg/L	1.54 NTU	72.4 mV	54.08 ft	400.00 ml/min
10/6/2021 10:12 AM	15:00	4.66 pH	23.54 °C	41.90 µS/cm	0.19 mg/L	1.45 NTU	75.1 mV	54.08 ft	400.00 ml/min
10/6/2021 10:17 AM	20:00	4.63 pH	23.53 °C	41.83 µS/cm	0.23 mg/L	1.42 NTU	77.5 mV	54.08 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-3	Sample time @ 1020. Cloudy 82. FB-02@ 1025.

Low-Flow Test Report:

Test Date / Time: 10/5/2021 12:52:28 PM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-4 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 59.9 ft Total Depth: 69.9 ft Initial Depth to Water: 50.2 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 64.9 ft Estimated Total Volume Pumped: 16000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 1335. Pc 85.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 12:52 PM	00:00	5.52 pH	26.06 °C	68.20 µS/cm	4.12 mg/L	2.90 NTU	100.4 mV	50.25 ft	400.00 ml/min
10/5/2021 12:57 PM	05:00	5.57 pH	23.59 °C	104.23 µS/cm	0.33 mg/L	2.48 NTU	84.5 mV	50.25 ft	400.00 ml/min
10/5/2021 1:02 PM	10:00	5.63 pH	23.64 °C	110.44 µS/cm	0.19 mg/L	2.24 NTU	76.6 mV	50.25 ft	400.00 ml/min
10/5/2021 1:07 PM	15:00	5.66 pH	23.56 °C	112.49 µS/cm	0.18 mg/L	2.18 NTU	72.5 mV	50.25 ft	400.00 ml/min
10/5/2021 1:12 PM	20:00	5.69 pH	23.72 °C	113.79 µS/cm	0.17 mg/L	2.02 NTU	69.4 mV	50.25 ft	400.00 ml/min
10/5/2021 1:17 PM	25:00	5.70 pH	23.56 °C	114.16 µS/cm	0.18 mg/L	1.96 NTU	67.5 mV	50.25 ft	400.00 ml/min
10/5/2021 1:22 PM	30:00	5.71 pH	23.30 °C	113.71 µS/cm	0.18 mg/L	1.90 NTU	66.3 mV	50.25 ft	400.00 ml/min
10/5/2021 1:27 PM	35:00	5.71 pH	23.31 °C	114.06 µS/cm	0.18 mg/L	1.87 NTU	65.5 mV	50.25 ft	400.00 ml/min
10/5/2021 1:32 PM	40:00	5.72 pH	23.33 °C	113.52 µS/cm	0.17 mg/L	1.88 NTU	63.7 mV	50.25 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-4	Sample time @ 1335. Pc 85.

Low-Flow Test Report:

Test Date / Time: 10/6/2021 6:53:35 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-5 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 59.1 ft Total Depth: 69.1 ft Initial Depth to Water: 51.14 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 64.1 ft Estimated Total Volume Pumped: 8000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.03 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 0715. Cloudy 76.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/6/2021 6:53 AM	00:00	5.68 pH	23.16 °C	137.45 µS/cm	3.88 mg/L	2.18 NTU	90.4 mV	51.17 ft	400.00 ml/min
10/6/2021 6:58 AM	05:00	5.91 pH	22.12 °C	176.38 µS/cm	0.55 mg/L	1.80 NTU	75.8 mV	51.17 ft	400.00 ml/min
10/6/2021 7:03 AM	10:00	5.98 pH	22.04 °C	180.33 µS/cm	0.28 mg/L	1.06 NTU	69.5 mV	51.17 ft	400.00 ml/min
10/6/2021 7:08 AM	15:00	6.00 pH	22.01 °C	180.94 µS/cm	0.24 mg/L	0.88 NTU	66.5 mV	51.17 ft	400.00 ml/min
10/6/2021 7:13 AM	20:00	6.03 pH	22.02 °C	180.89 µS/cm	0.24 mg/L	0.85 NTU	63.8 mV	51.17 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-5	Sample time @ 0715. Cloudy 76.

Low-Flow Test Report:

Test Date / Time: 10/5/2021 10:26:25 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-7 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 50 ft Total Depth: 60 ft Initial Depth to Water: 48.9 ft	Pump Type: QED Tubing Type: PE Pump Intake From TOC: 55 ft Estimated Total Volume Pumped: 12000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 1100. Pc 85.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 10:26 AM	00:00	4.83 pH	23.60 °C	50.70 µS/cm	2.12 mg/L	1.36 NTU	134.9 mV	48.94 ft	400.00 ml/min
10/5/2021 10:31 AM	05:00	4.84 pH	23.78 °C	51.92 µS/cm	1.35 mg/L	1.02 NTU	137.0 mV	48.94 ft	400.00 ml/min
10/5/2021 10:36 AM	10:00	4.84 pH	23.97 °C	51.98 µS/cm	1.32 mg/L	0.79 NTU	132.7 mV	48.94 ft	400.00 ml/min
10/5/2021 10:41 AM	15:00	4.83 pH	24.32 °C	51.65 µS/cm	1.25 mg/L	0.64 NTU	132.6 mV	48.94 ft	400.00 ml/min
10/5/2021 10:46 AM	20:00	4.84 pH	23.89 °C	51.61 µS/cm	1.23 mg/L	0.56 NTU	132.3 mV	48.94 ft	400.00 ml/min
10/5/2021 10:51 AM	25:00	4.84 pH	23.78 °C	51.66 µS/cm	1.22 mg/L	0.48 NTU	131.5 mV	48.94 ft	400.00 ml/min
10/5/2021 10:56 AM	30:00	4.84 pH	23.83 °C	51.66 µS/cm	1.19 mg/L	0.42 NTU	131.4 mV	48.94 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-7	Sample time @ 1100. Pc 85.

Low-Flow Test Report:

Test Date / Time: 10/6/2021 7:57:57 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-8 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 58.7 ft Total Depth: 68.7 ft Initial Depth to Water: 53.37 ft	Pump Type: BP Tubing Type: PE Pump Intake From TOC: 63.7 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 0820. Cloudy 78. DUP-03@ fake time 0720.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/6/2021 7:57 AM	00:00	6.00 pH	22.30 °C	184.61 µS/cm	1.14 mg/L	0.90 NTU	74.3 mV	53.42 ft	400.00 ml/min
10/6/2021 8:02 AM	05:00	5.84 pH	22.08 °C	188.12 µS/cm	0.32 mg/L	0.68 NTU	67.9 mV	53.42 ft	400.00 ml/min
10/6/2021 8:07 AM	10:00	5.85 pH	22.07 °C	186.81 µS/cm	0.25 mg/L	0.59 NTU	65.9 mV	53.42 ft	400.00 ml/min
10/6/2021 8:12 AM	15:00	5.87 pH	22.08 °C	186.04 µS/cm	0.21 mg/L	0.57 NTU	64.0 mV	53.42 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-8	Sample time @ 0820. Cloudy 78. DUP-03@ fake time 0720.

Low-Flow Test Report:

Test Date / Time: 10/6/2021 9:12:27 AM

Project: Plant Daniel CCR

Operator Name: Philip Evans

Location Name: Daniel BAW-9 Well Diameter: 2 in Screen Length: 10 ft Top of Screen: 53.15 ft Total Depth: 63.15 ft Initial Depth to Water: 51.5 ft	Pump Type: BP Tubing Type: PE Pump Intake From TOC: 58.15 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.1 ft	Instrument Used: Aqua TROLL 400 Serial Number: 817728
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Test Notes:

Sample time @ 0930. Cloudy 82. EB-02@ 0900.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/6/2021 9:12 AM	00:00	6.15 pH	22.92 °C	152.03 µS/cm	0.81 mg/L	0.46 NTU	68.5 mV	51.60 ft	400.00 ml/min
10/6/2021 9:17 AM	05:00	6.12 pH	22.48 °C	152.00 µS/cm	0.31 mg/L	0.38 NTU	67.8 mV	51.60 ft	400.00 ml/min
10/6/2021 9:22 AM	10:00	6.13 pH	22.46 °C	151.97 µS/cm	0.22 mg/L	0.36 NTU	67.0 mV	51.60 ft	400.00 ml/min
10/6/2021 9:27 AM	15:00	6.13 pH	22.44 °C	152.04 µS/cm	0.19 mg/L	0.32 NTU	66.3 mV	51.60 ft	400.00 ml/min

Samples

Sample ID:	Description:
BAW-9	Sample time @ 0930. Cloudy 82. EB-02@ 0900.

Appendix B

1st

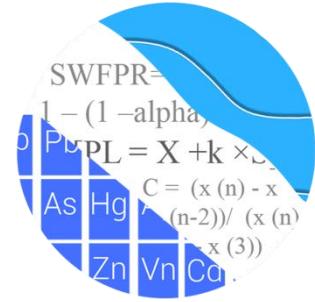
Semi-Annual

Monitoring Event

GROUNDWATER STATS
CONSULTING

May 19, 2021

Southern Company Services
Attn: Ms. Lauren Collins
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Daniel Bottom Ash Pond
2021 Annual Statistical Analysis – March 2021 Sample Event

Dear Ms. Collins,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2021 Groundwater Detection and Assessment Monitoring Annual report for Mississippi Power Company's Plant Daniel Bottom Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel Bottom Ash Pond for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BAW-1 and BAW-2A
- **Downgradient wells:** BAW-3, BAW-4, BAW-5, and BAW-7

Well BAW-2 was last sampled in October 2017 and has since been abandoned; however, data for this well are included for historical concentrations. Well BAW-2A was first sampled in March 2018 and has since been sampled to supplement existing upgradient data for BAW-2.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of Appendix IV downgradient well/constituent pairs with 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. For calculating prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. In the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. Note that in the case of boron, the most recent reporting limit changed to <0.08 mg/L from <0.05 mg/L in 2020 at all wells due to changing laboratory practices.

Time series plots for Appendix III and IV parameters are provided for all wells and are used to evaluate concentrations over time (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph. A summary of these values follows this letter (Figure C). 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.

During the previous screening, 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 screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods:

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric prediction 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 prediction limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as "<" the original reporting limit.

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 following each sampling event after careful screening for any new outliers. 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.

Summary of Background Screening Conducted in October 2017

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. No suspected outliers were observed in any of the proposed background data at upgradient wells. When any values are identified as outliers, they are plotted in a lighter font on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

No true seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a couple statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations, therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA showed no variation for calcium, chloride, pH, sulfate, and TDS, making these parameters eligible for interwell methods. Boron and fluoride contained 100% non-detects; therefore, while they could not be tested with the ANOVA, it is assumed no variation is present, making these parameters also eligible for interwell methods. A summary table of the ANOVA results was included with the October 2017 screening.

Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for all upgradient wells for interwell parameters using September 2019 sample event. An updated summary of Tukey's test results and flagged outliers was included with the 2019 Background Update report.

For parameters tested using interwell analyses, the Sen's Slope/Mann-Kendall trend test was used on upgradient wells to determine whether concentrations are statistically increasing, decreasing or stable. No statistically significant increasing or decreasing trends were noted with the exception of decreasing trends for calcium and pH in well BAW-2. The magnitude of these trends, however, is low relative to the average concentrations in these wells. Therefore, no adjustments were required at this time and these results were included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – March 2021

Prior to updating interwell prediction limits, data through the March 2021 sample event at upgradient wells were re-evaluated for outliers using visual screening. No new outliers were suspected or flagged during this analysis. Tukey's outlier test had previously identified an outlier for calcium at well BAW-2 during the November 2019 statistical analysis; therefore, this value remains flagged. A summary of flagged data follows this report (Figure C). Additionally, any flagged values are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Interwell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters using pooled historical upgradient well data through March 2021 (Figure D). The reported measurements for the March 2021 sample event were compared to the prediction limits 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 the resample confirms the initial exceedance, a statistically significant increase (SSI) 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 further action is necessary. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- BAW-3: Chloride
- BAW-4: Calcium, pH
- BAW-5: Boron, Calcium, Chloride, pH, and TDS
- BAW-7: Boron, Chloride

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 F). 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. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- BAW-3: Chloride

Decreasing:

- BAW-2 (upgradient): Calcium and pH
- BAW-5: Calcium and pH

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 groundwater quality. Site-specific background limits are determined using upper tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Evaluation of Appendix IV Parameters – March 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 have 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged during this analysis. Tukey's outlier test had previously identified an outlier for lithium at well BAW-1 during the November 2019 statistical analysis; therefore, this value remains flagged. A summary of flagged outliers follows this report (Figure C).

Parametric upper tolerance limits were used to calculate background limits from pooled upgradient well data through March 2021 for Appendix IV parameters with a target of 95% confidence and 95% coverage to determine background limits (Figure G). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These limits were compared to the Maximum Contaminant Levels (MCLs), CCR Rule-Specified levels, and background limits in the Groundwater Protection Standard (GWPS) table following this letter to determine the highest limit for use as the GWPS in the Confidence Interval comparisons (Figure H).

Confidence intervals were then constructed on downgradient wells using all data through March 2021 for each of the Appendix IV parameters and compared to the GWPS, i.e. the highest limit of the MCL, CCR Rule-Specified level, or background limit as discussed above

(Figure I). Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Complete graphical results of the confidence interval follow this letter. An exceedance was identified for the following well/constituent pair:

- BAW-5: Lithium

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Daniel Bottom Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Tristan Clark

Tristan Clark

Groundwater Analyst

Collins

Andrew Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/18/2021 10:11 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Antimony (mg/L)
BAW-3, BAW-4, BAW-5, BAW-7

Arsenic (mg/L)
BAW-3

Beryllium (mg/L)
BAW-3, BAW-4, BAW-5, BAW-7

Cadmium (mg/L)
BAW-4, BAW-7

Molybdenum (mg/L)
BAW-3

Selenium (mg/L)
BAW-4

Thallium (mg/L)
BAW-4, BAW-5, BAW-7

Appendix III Interwell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:54 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>
Boron (mg/L)	BAW-5	0.0928	n/a	3/17/2021	0.2	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/26/2021	0.647	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/17/2021	6.69	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/17/2021	15.3	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	7.971	n/a	3/26/2021	8.32	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-5	7.971	n/a	3/17/2021	9.6	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-7	7.971	n/a	3/26/2021	8.5	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
pH (SU)	BAW-4	5.429	4.512	3/17/2021	5.62	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.429	4.512	3/17/2021	6.14	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	57.49	n/a	3/17/2021	79	Yes	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:54 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>
Boron (mg/L)	BAW-3	0.0928	n/a	3/26/2021	0.08ND	No	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-4	0.0928	n/a	3/17/2021	0.0673J	No	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	3/17/2021	0.2	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/26/2021	0.647	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-3	2.8	n/a	3/26/2021	0.937	No	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/17/2021	6.69	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/17/2021	15.3	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-7	2.8	n/a	3/26/2021	0.848	No	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	7.971	n/a	3/26/2021	8.32	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-4	7.971	n/a	3/17/2021	7.55	No	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-5	7.971	n/a	3/17/2021	9.6	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-7	7.971	n/a	3/26/2021	8.5	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Fluoride (mg/L)	BAW-3	0.1	n/a	3/26/2021	0.1ND	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-4	0.1	n/a	3/17/2021	0.0544J	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	3/17/2021	0.0575J	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-7	0.1	n/a	3/26/2021	0.1ND	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
pH (SU)	BAW-3	5.429	4.512	3/26/2021	4.54	No	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-4	5.429	4.512	3/17/2021	5.62	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.429	4.512	3/17/2021	6.14	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-7	5.429	4.512	3/26/2021	4.67	No	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5	n/a	3/26/2021	3.25	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BAW-4	5	n/a	3/17/2021	4.35	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BAW-5	5	n/a	3/17/2021	4.07	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BAW-7	5	n/a	3/26/2021	2	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	BAW-3	57.49	n/a	3/26/2021	37	No	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	57.49	n/a	3/17/2021	44	No	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	57.49	n/a	3/17/2021	79	Yes	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-7	57.49	n/a	3/26/2021	38	No	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:58 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.9932	-83	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-3	0.379	69	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09765	-97	-68	Yes	18	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:58 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDS</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	12	74	No	19	94.74	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-16	-30	No	10	70	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	-0.02236	-56	-74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	18	74	No	19	94.74	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.01553	21	74	No	19	5.263	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.03598	-17	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.08608	36	74	No	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.9932	-83	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-1 (bg)	-0.05821	-13	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2 (bg)	1.001	18	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2A (bg)	0.1715	4	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-3	0.379	69	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-5	-0.05536	-13	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-7	-0.1386	-44	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.03905	-36	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.1378	-23	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.01723	17	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09765	-97	-68	Yes	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	0.2556	9	68	No	18	11.11	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	-0.3342	-1	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-5.028	-59	-68	No	18	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 10:02 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</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)	0.002	n/a	n/a	30	n/a	n/a	96.67	n/a	n/a	0.2146	NP Inter(nds)
Arsenic (mg/L)	0.001	n/a	n/a	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(nds)
Barium (mg/L)	0.04088	n/a	n/a	36	0.001021	0.0003015	0	None	x^2	0.05	Inter
Beryllium (mg/L)	0.001	n/a	n/a	32	n/a	n/a	96.88	n/a	n/a	0.1937	NP Inter(nds)
Cadmium (mg/L)	0.001	n/a	n/a	36	n/a	n/a	97.22	n/a	n/a	0.1578	NP Inter(nds)
Chromium (mg/L)	0.00286	n/a	n/a	34	n/a	n/a	88.24	n/a	n/a	0.1748	NP Inter(nds)
Cobalt (mg/L)	0.001289	n/a	n/a	36	0.0008669	0.0001955	5.556	None	No	0.05	Inter
Combined Radium 226 + 228 (pCi/L)	2.5	n/a	n/a	36	n/a	n/a	5.556	n/a	n/a	0.1578	NP Inter(normality)
Fluoride (mg/L)	0.1	n/a	n/a	38	n/a	n/a	92.11	n/a	n/a	0.1424	NP Inter(nds)
Lead (mg/L)	0.001	n/a	n/a	34	n/a	n/a	100	n/a	n/a	0.1748	NP Inter(nds)
Lithium (mg/L)	0.00505	n/a	n/a	35	n/a	n/a	71.43	n/a	n/a	0.1661	NP Inter(nds)
Mercury (mg/L)	0.0002	n/a	n/a	28	n/a	n/a	92.86	n/a	n/a	0.2378	NP Inter(nds)
Molybdenum (mg/L)	0.005	n/a	n/a	32	n/a	n/a	87.5	n/a	n/a	0.1937	NP Inter(nds)
Selenium (mg/L)	0.005	n/a	n/a	32	n/a	n/a	81.25	n/a	n/a	0.1937	NP Inter(nds)
Thallium (mg/L)	0.001	n/a	n/a	32	n/a	n/a	96.88	n/a	n/a	0.1937	NP Inter(nds)

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.041	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		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0013	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

Confidence Intervals - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 10:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.1956	0.1673	0.04	Yes	18	0.1814	0.02341	0	None	No	0.01	Param.

Confidence Intervals - All Results

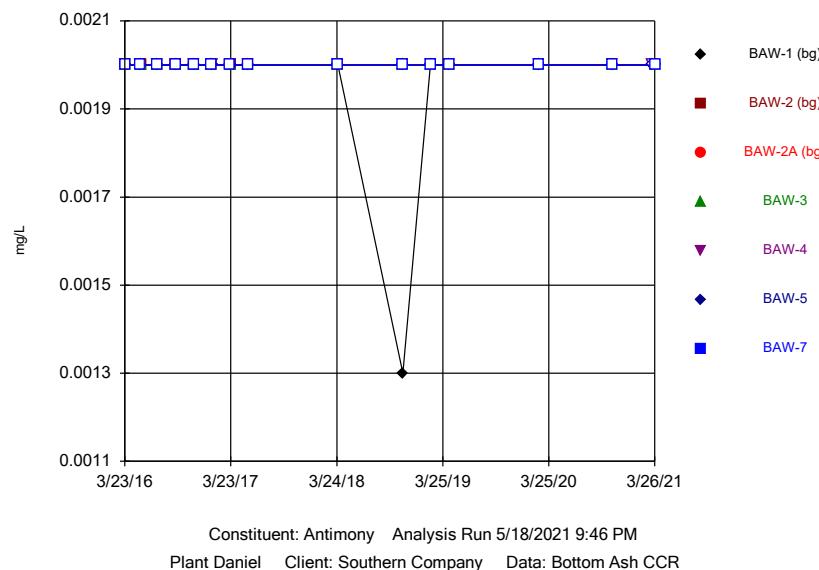
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 10:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.0009094	0.000669	0.01	No	18	0.0008361	0.0002016	22.22	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BAW-5	0.002932	0.001724	0.01	No	18	0.002328	0.0009982	0	None	No	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No	18	0.0009456	0.0001585	88.89	None	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.02917	0.02084	2	No	18	0.02501	0.006879	0	None	No	0.01	Param.
Barium (mg/L)	BAW-4	0.011	0.0087	2	No	18	0.01033	0.003228	0	None	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.04532	0.04051	2	No	18	0.04303	0.004139	0	None	In(x)	0.01	Param.
Barium (mg/L)	BAW-7	0.0124	0.011	2	No	18	0.01209	0.001831	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	BAW-3	0.0009308	0.0006835	0.005	No	18	0.0008072	0.0002043	5.556	None	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No	18	0.0009531	0.0001992	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No	17	0.002038	0.0002619	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No	17	0.001888	0.0002619	82.35	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No	17	0.002153	0.0007666	82.35	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No	17	0.002004	0.000014559	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.006224	0.005165	0.006	No	18	0.005694	0.0008753	0	None	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.0012	0.00094	0.006	No	18	0.00113	0.0002991	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	BAW-5	0.0005	0.00042	0.006	No	18	0.0004956	0.00001886	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.0009298	0.0007466	0.006	No	18	0.0008382	0.0001514	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.78	0.0761	5	No	18	0.5872	0.7591	11.11	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.53	0.0408	5	No	18	0.623	0.88	16.67	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.6663	0.265	5	No	17	0.5542	0.5429	5.882	None	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	0.4702	0.1495	5	No	18	0.7112	0.851	16.67	Kaplan-Meier	$x^{(1/3)}$	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No	19	0.09653	0.01514	94.74	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.1	0.04	4	No	19	0.06105	0.02781	31.58	None	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.06534	0.04998	4	No	19	0.05862	0.0142	5.263	None	In(x)	0.01	Param.
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No	19	0.09692	0.01342	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.00015	0.015	No	17	0.0006134	0.0003898	47.06	None	No	0.01	NP (normality)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No	17	0.0008326	0.0003166	76.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No	17	0.0009501	0.0002057	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No	17	0.0009488	0.0002112	94.12	None	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.00687	0.0024	0.04	No	18	0.004474	0.001345	72.22	None	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-4	0.027	0.022	0.04	No	18	0.02528	0.005394	0	None	No	0.01	NP (normality)
Lithium (mg/L)	BAW-5	0.1956	0.1673	0.04	Yes	18	0.1814	0.02341	0	None	No	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0029	0.04	No	18	0.004324	0.001026	66.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No	14	0.0002079	0.00009016	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No	14	0.0001859	0.00003748	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No	14	0.000191	0.00003367	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000071	0.002	No	14	0.0001933	0.00003641	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.005	0.0032	0.1	No	16	0.004613	0.001157	87.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-5	0.003147	0.0009944	0.1	No	16	0.003366	0.002163	37.5	Kaplan-Meier	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No	16	0.004925	0.0003	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00033	0.05	No	16	0.003024	0.00232	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No	16	0.004708	0.001167	93.75	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00031	0.05	No	16	0.003643	0.00212	68.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-3	0.001	0.000158	0.002	No	16	0.0007884	0.0003806	75	None	No	0.01	NP (NDs)

FIGURE A.

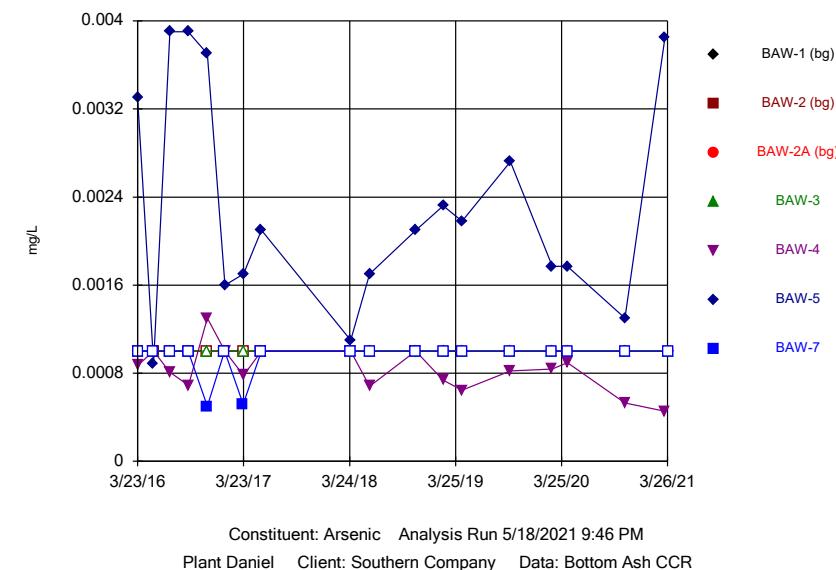
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Hollow symbols indicate censored values.

Time Series



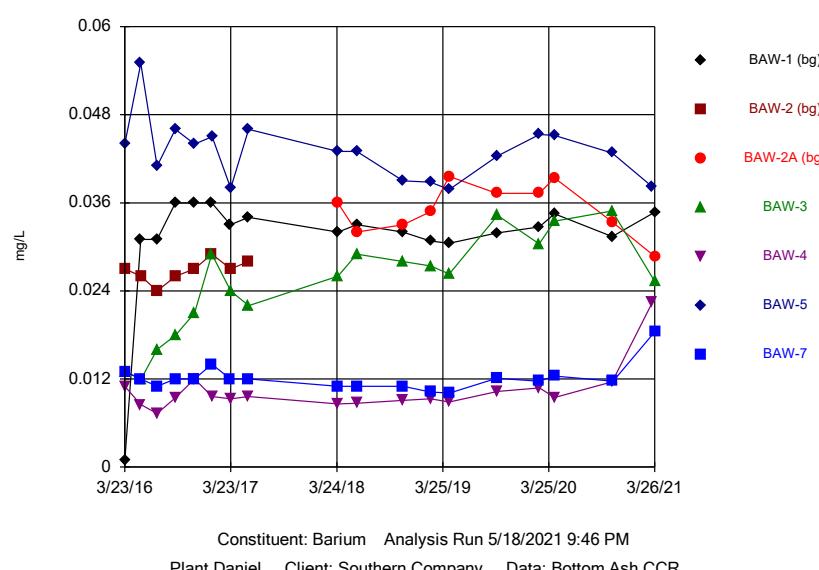
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Time Series



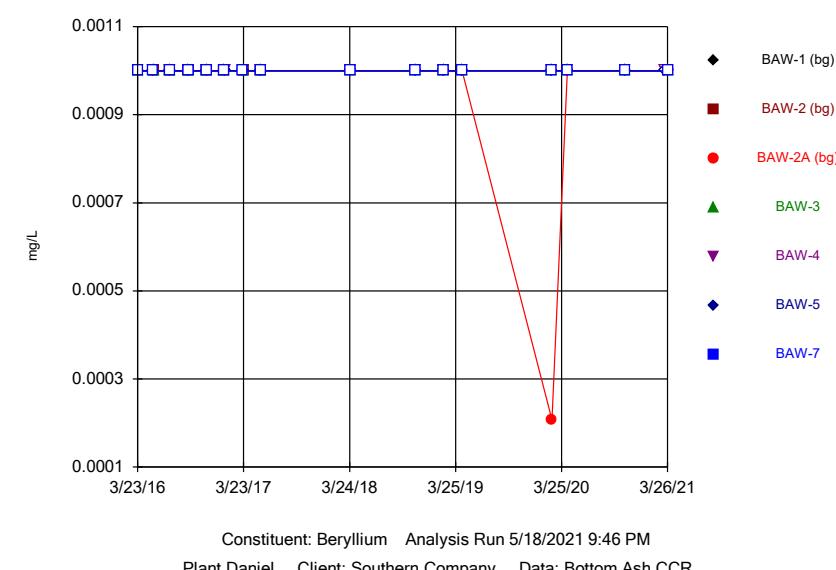
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Time Series

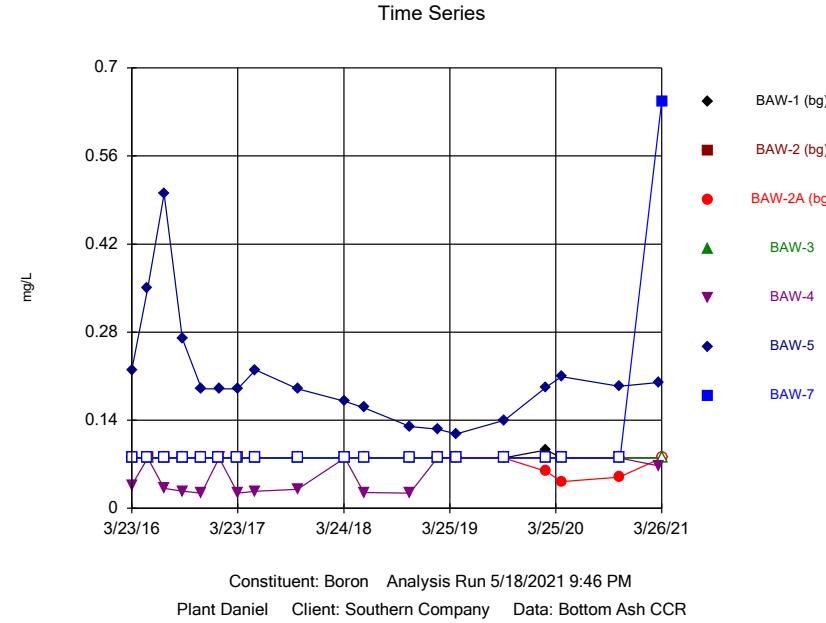


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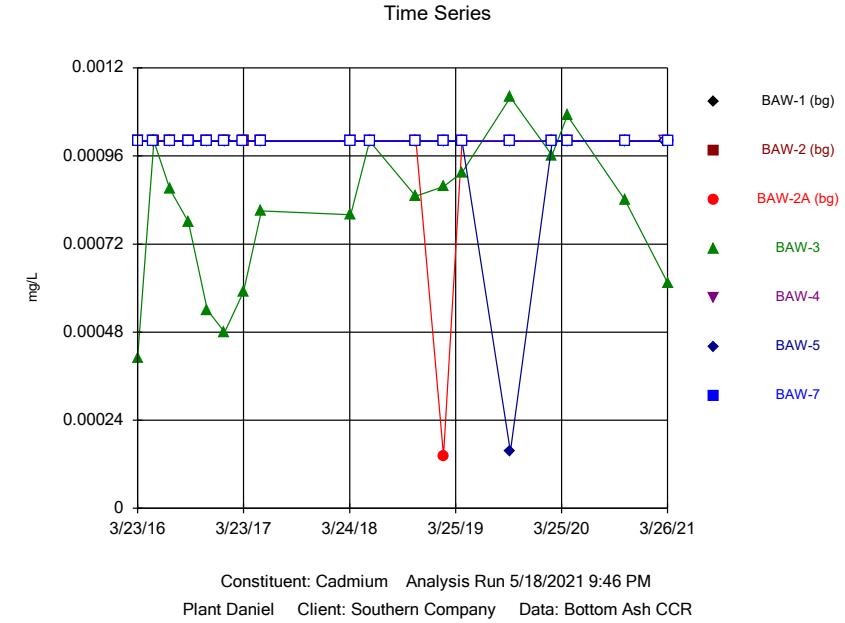
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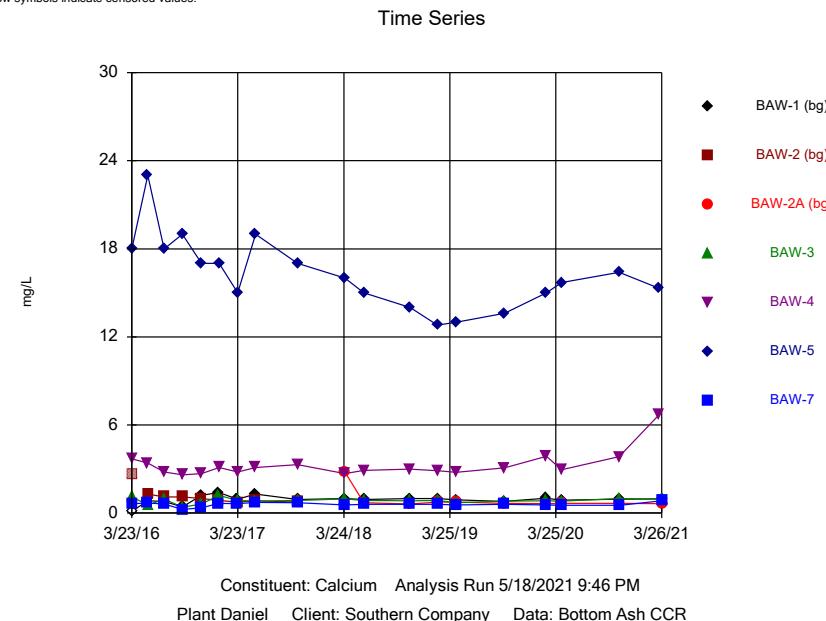
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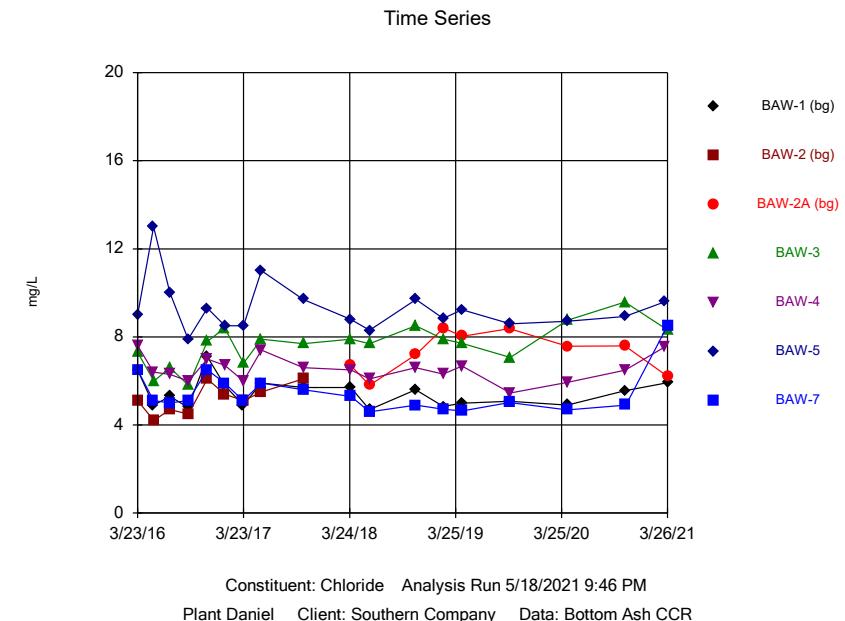
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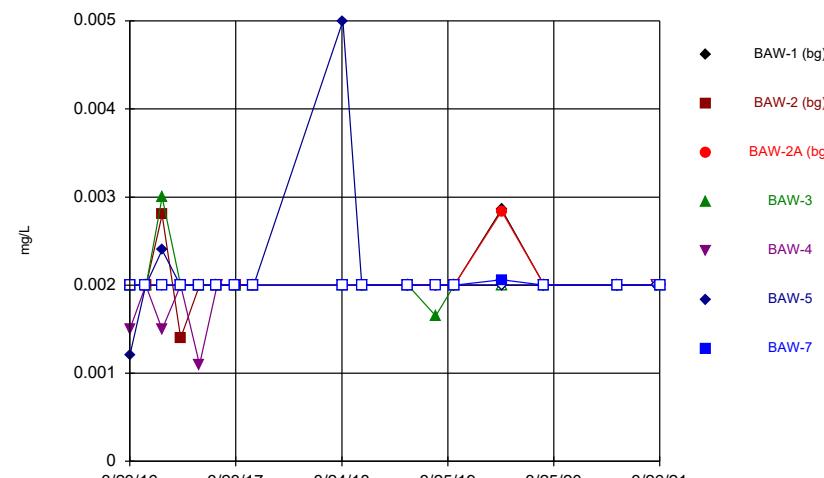


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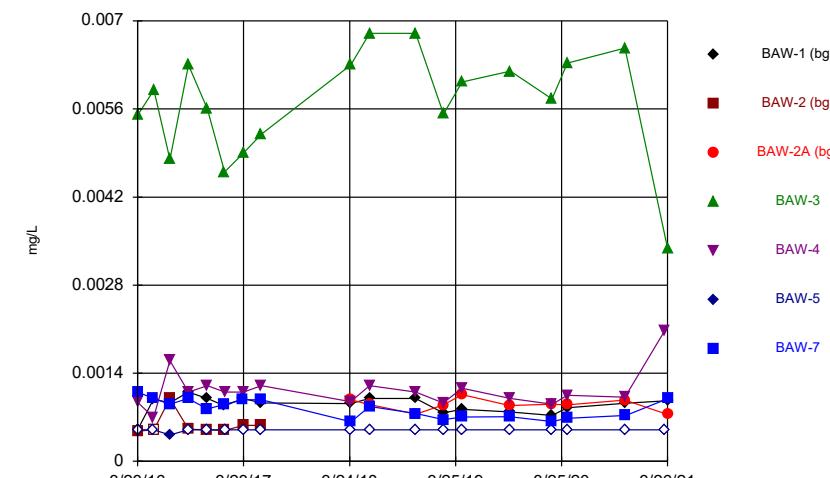
Time Series



Constituent: Chromium Analysis Run 5/18/2021 9:46 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

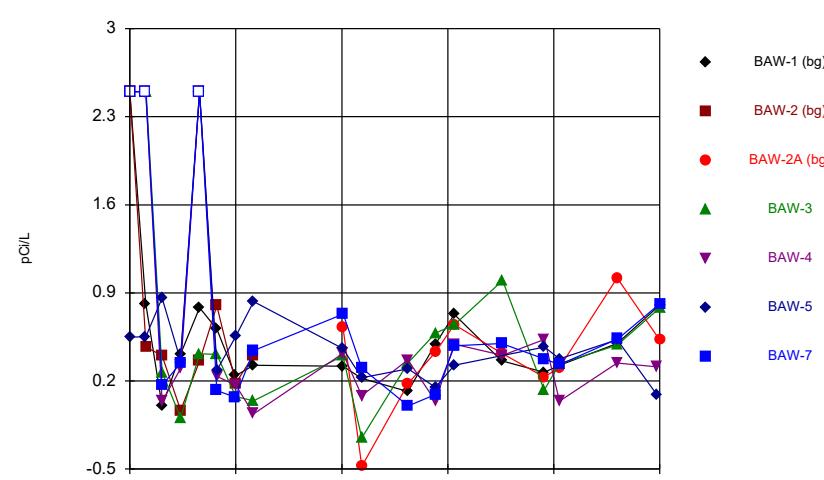
Time Series



Constituent: Cobalt Analysis Run 5/18/2021 9:46 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting, UG
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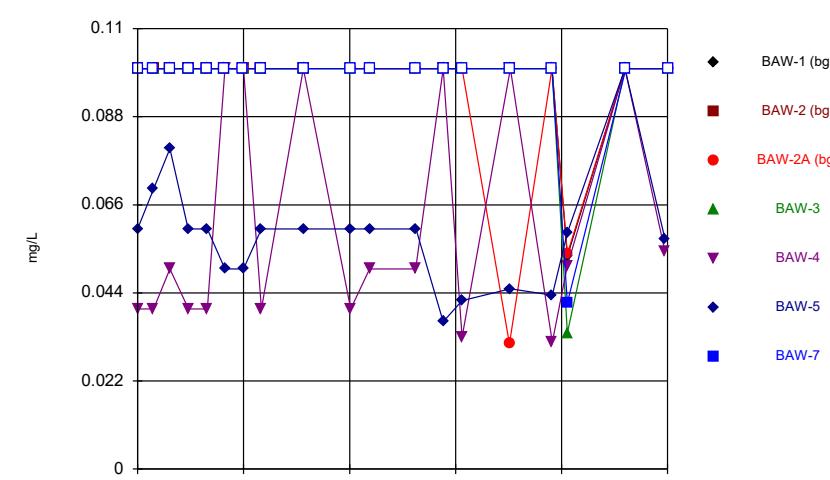
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/18/2021 9:46 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

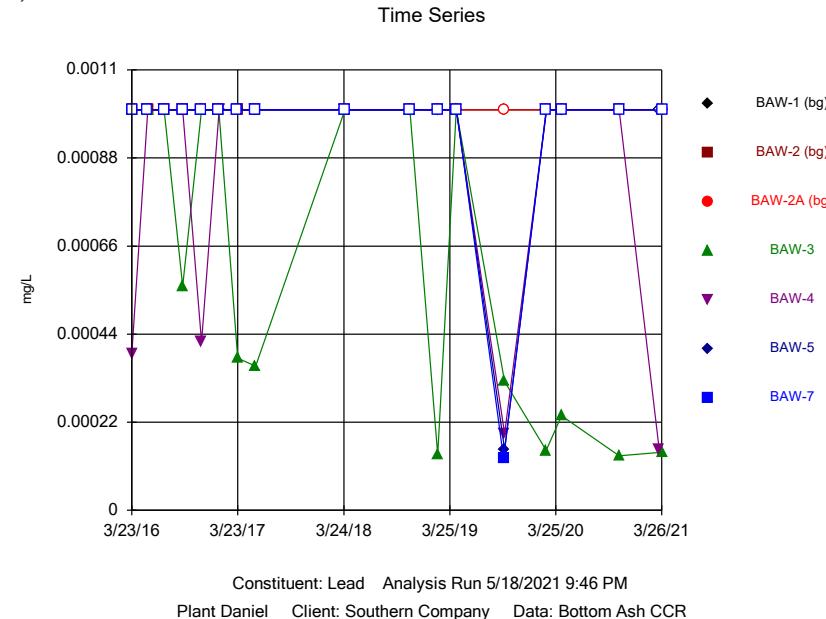
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Time Series

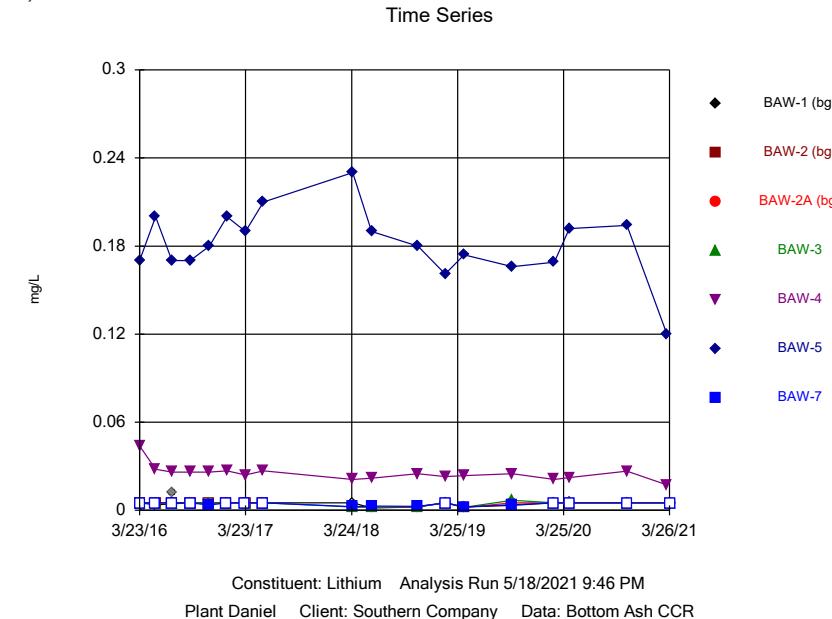


Constituent: Fluoride Analysis Run 5/18/2021 9:46 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

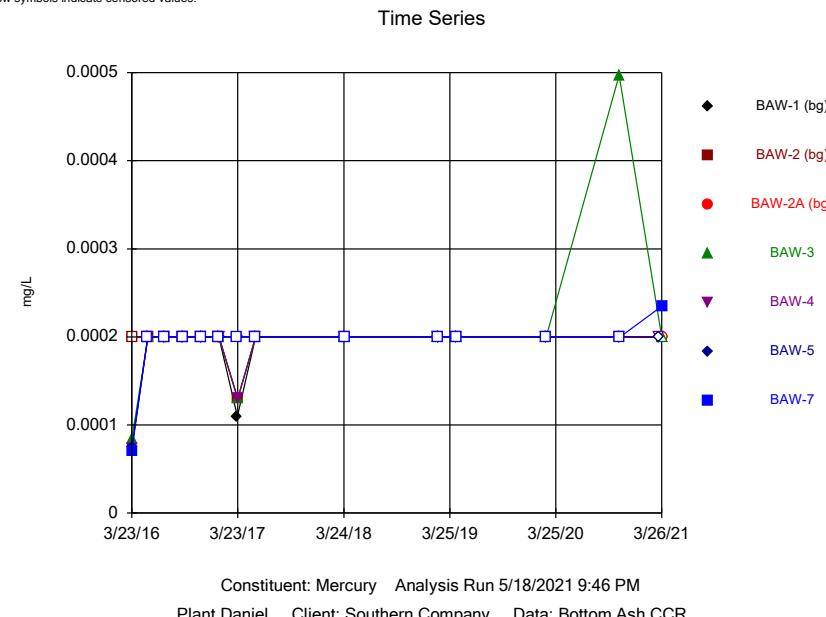
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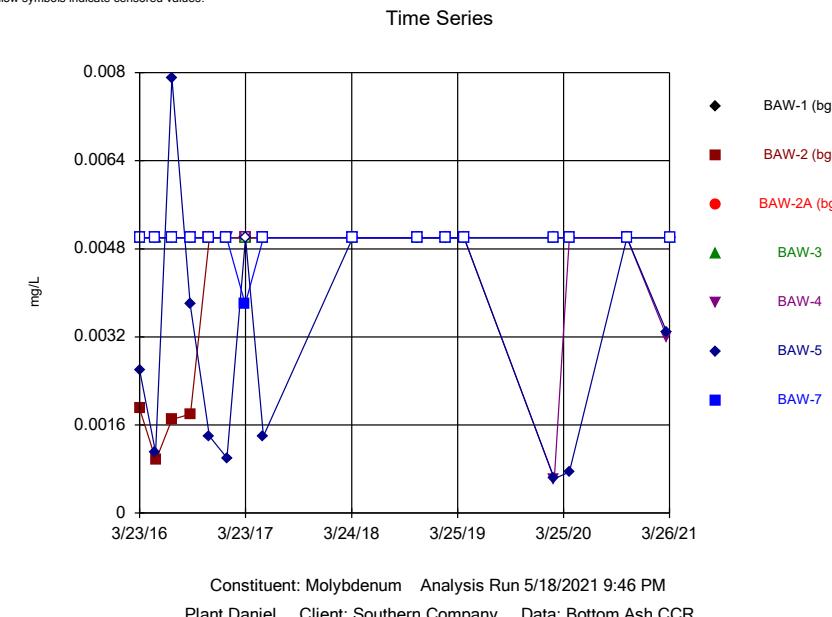
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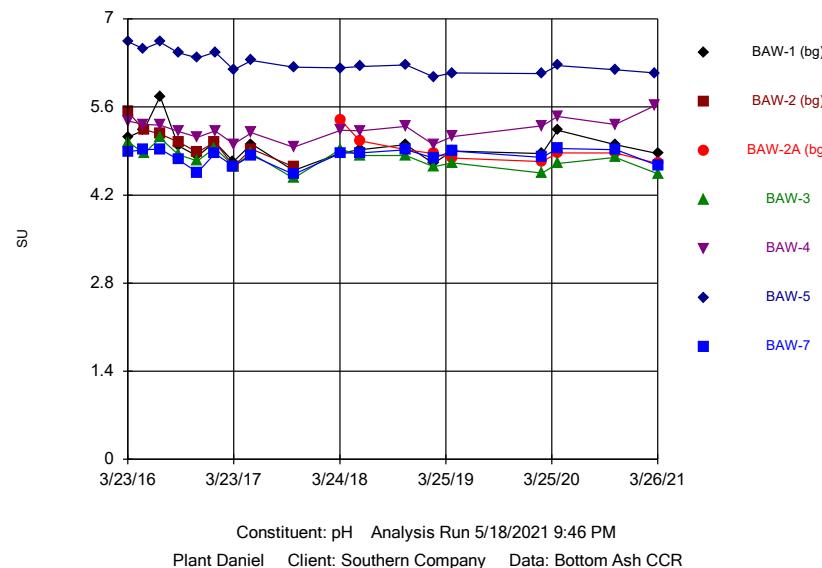
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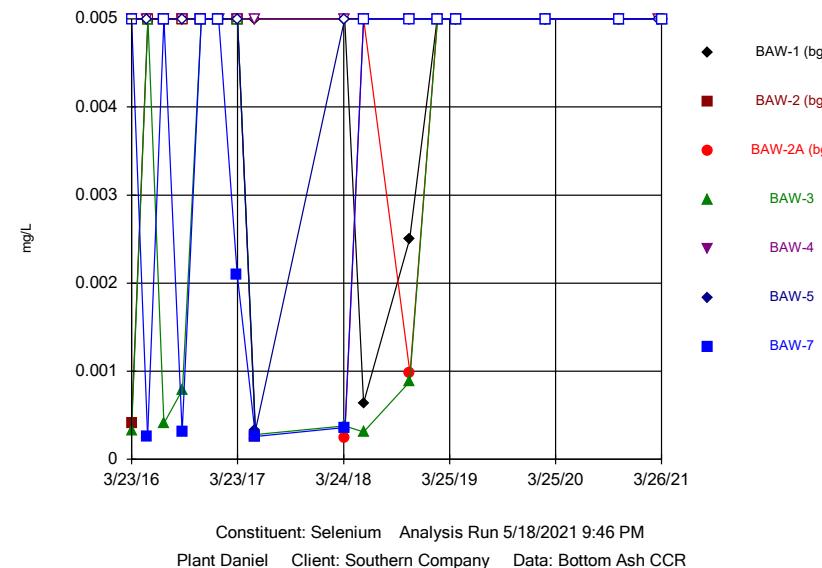
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Hollow symbols indicate censored values.



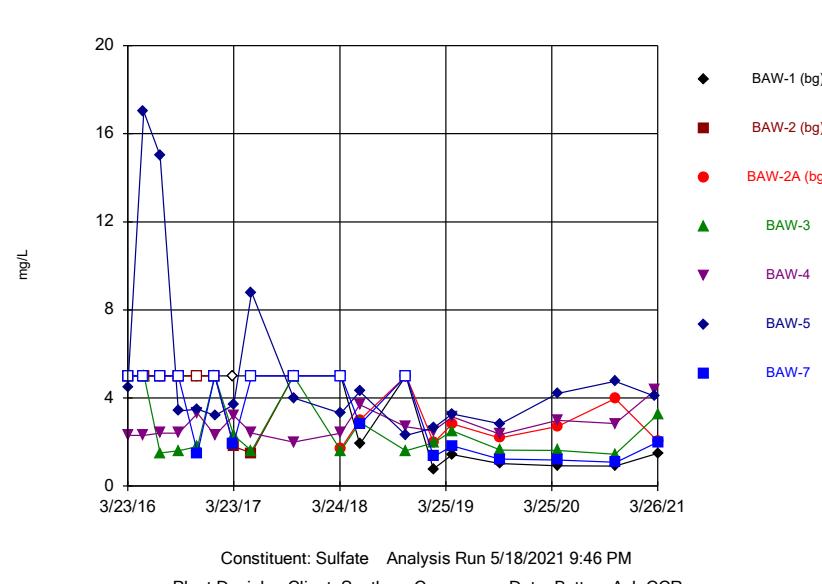
Time Series



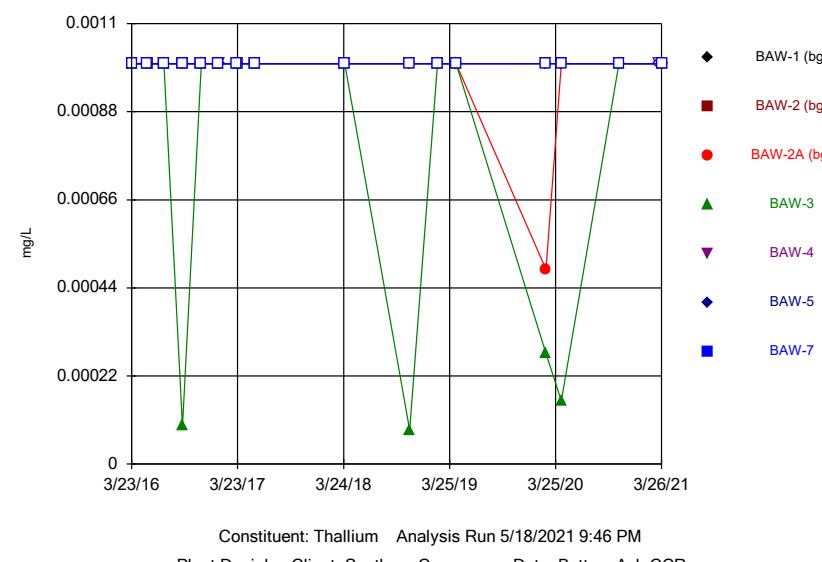
Time Series



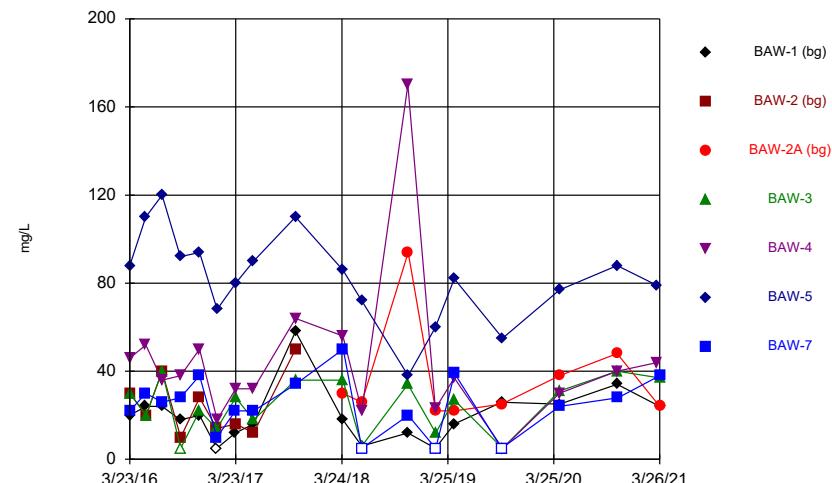
Time Series



Time Series



Time Series



Constituent: Total Dissolved Solids Analysis Run 5/18/2021 9:46 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
5/17/2016	<0.002				<0.002	<0.002	<0.002
5/18/2016		<0.002		<0.002			
7/12/2016	<0.002						<0.002
7/13/2016		<0.002		<0.002	<0.002	<0.002	
9/13/2016	<0.002					<0.002	<0.002
9/14/2016		<0.002		<0.002	<0.002		
11/19/2016	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
1/17/2017	<0.002	<0.002		<0.002			<0.002
1/18/2017					<0.002	<0.002	
3/22/2017	<0.002						<0.002
3/23/2017		<0.002		<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002		<0.002	<0.002	<0.002	<0.002	
3/29/2018							<0.002
11/8/2018	0.0013 (J)			<0.002	<0.002		
11/9/2018			<0.002			<0.002	<0.002
2/11/2019	<0.002				<0.002	<0.002	
2/12/2019			<0.002	<0.002			<0.002
4/17/2019	<0.002		<0.002	<0.002	<0.002	<0.002	
4/18/2019							<0.002
2/21/2020	<0.002		<0.002	<0.002			<0.002
2/22/2020					<0.002	<0.002	
10/30/2020	<0.002		<0.002	<0.002	<0.002	<0.002	
11/2/2020							<0.002
3/17/2021					<0.002	<0.002	
3/26/2021	<0.002		<0.002	<0.002			<0.002

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	0.00087 (J)	0.0033	<0.001
5/17/2016	<0.001				<0.001	0.00089 (J)	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	0.00081 (J)	0.0039	
9/13/2016	<0.001			<0.001		0.0039	<0.001
9/14/2016		<0.001		<0.001	0.00069 (J)		
11/19/2016	<0.001	<0.001		<0.001	0.0013	0.0037	0.0005 (J)
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	0.0016	
3/22/2017	<0.001						0.00052 (J)
3/23/2017		<0.001		<0.001	0.00078 (J)	0.0017	
5/24/2017	<0.001	<0.001		<0.001	0.001 (J)	0.0021	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	0.0011 (J)	
3/29/2018				<0.001			<0.001
6/2/2018	<0.001		<0.001	<0.001	0.00068 (J)	0.0017	<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			0.0021	<0.001
2/11/2019	<0.001				0.000737 (J)	0.00232	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	0.000645 (J)	0.00218	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				<0.001
9/30/2019				<0.001	0.000821 (J)	0.00272	
2/21/2020	<0.001		<0.001	<0.001			<0.001
2/22/2020					0.000837 (J)	0.00177	
4/14/2020	<0.001		<0.001	<0.001	0.000896 (J)	0.00177	<0.001
10/30/2020	<0.001		<0.001	<0.001	0.000529 (J)	0.0013	
11/2/2020							<0.001
3/17/2021					0.000454 (J)	0.00385	
3/26/2021	<0.001		<0.001	<0.001			<0.001

Time Series

Constituent: Barium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.00084 (J)	0.027		0.013	0.011	0.044	0.013
5/17/2016	0.031				0.0085	0.055	0.012
5/18/2016		0.026		0.012			
7/12/2016	0.031						0.011
7/13/2016		0.024		0.016	0.0073	0.041	
9/13/2016	0.036					0.046	0.012
9/14/2016		0.026		0.018	0.0095		
11/19/2016	0.036	0.027		0.021	0.012	0.044	0.012
1/17/2017	0.036	0.029		0.029			0.014
1/18/2017					0.0096	0.045	
3/22/2017	0.033						0.012
3/23/2017		0.027		0.024	0.0093	0.038	
5/24/2017	0.034	0.028		0.022	0.0096	0.046	0.012
3/28/2018	0.032		0.036	0.026	0.0086	0.043	
3/29/2018							0.011
6/2/2018	0.033		0.032	0.029	0.0087	0.043	0.011
11/8/2018	0.032			0.028	0.0091		
11/9/2018			0.033			0.039	0.011
2/11/2019	0.0308				0.00931	0.0388	
2/12/2019			0.0348	0.0274			0.0102
4/17/2019	0.0305		0.0396	0.0263	0.00888	0.0378	
4/18/2019							0.0101
9/27/2019	0.0319		0.0373				0.0121
9/30/2019				0.0343	0.0103	0.0424	
2/21/2020	0.0327		0.0373	0.0304			0.0117
2/22/2020					0.0108	0.0453	
4/14/2020	0.0345		0.0394	0.0335	0.00949 (J)	0.0452	0.0124
10/30/2020	0.0314		0.0334	0.0349	0.0116	0.0428	
11/2/2020							0.0117
3/17/2021					0.0224	0.0382	
3/26/2021	0.0347		0.0287	0.0253			0.0184

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.001		<0.001	<0.001		
11/19/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		<0.001	<0.001	<0.001	
5/24/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
2/21/2020	<0.001		0.000207 (J)	<0.001			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	<0.001	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	<0.001			<0.001

Time Series

Constituent: Boron (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.08	<0.08		<0.08	0.037 (J)	0.22	<0.08
5/17/2016	<0.08				<0.08	0.35	<0.08
5/18/2016		<0.08		<0.08			
7/12/2016	<0.08						<0.08
7/13/2016		<0.08		<0.08	0.032 (J)	0.5	
9/13/2016	<0.08			<0.08		0.27	<0.08
9/14/2016		<0.08		<0.08	0.027 (J)		
11/19/2016	<0.08	<0.08		<0.08	0.024 (J)	0.19	<0.08
1/17/2017	<0.08	<0.08		<0.08			<0.08
1/18/2017					<0.08	0.19	
3/22/2017	<0.08						<0.08
3/23/2017		<0.08		<0.08	0.024 (J)	0.19	
5/24/2017	<0.08	<0.08		<0.08	0.027 (J)	0.22	<0.08
10/16/2017	<0.08	<0.08		<0.08	0.03 (J)	0.19	<0.08
3/28/2018	<0.08		<0.08	<0.08	<0.08	0.17	
3/29/2018							<0.08
6/2/2018	<0.08		<0.08	<0.08	0.025 (J)	0.16	<0.08
11/8/2018	<0.08			<0.08	0.024 (J)		
11/9/2018			<0.08			0.13	<0.08
2/11/2019	<0.08				<0.08	0.126	
2/12/2019			<0.08	<0.08			<0.08
4/17/2019	<0.08		<0.08	<0.08	<0.08	0.118	
4/18/2019							<0.08
9/27/2019	<0.08		<0.08				<0.08
9/30/2019				<0.08	<0.08	0.14	
2/21/2020	0.0928		0.0589 (J)	<0.08			<0.08
2/22/2020					<0.08	0.193	
4/14/2020	<0.08		0.0424 (J)	<0.08	<0.08	0.209	<0.08
10/30/2020	<0.08		0.0495 (J)	<0.08	<0.08	0.194	
11/2/2020					0.0673 (J)	0.2	<0.08
3/17/2021							
3/26/2021	<0.08		<0.08	<0.08			0.647

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		0.00041 (J)	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		0.00087 (J)	<0.001	<0.001	
9/13/2016	<0.001			0.00078 (J)	<0.001	<0.001	<0.001
9/14/2016		<0.001					
11/19/2016	<0.001	<0.001		0.00054 (J)	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		0.00048 (J)			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		0.00059 (J)	<0.001	<0.001	
5/24/2017	<0.001	<0.001		0.00081 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	0.0008 (J)	<0.001	<0.001	
3/29/2018							<0.001
6/2/2018	<0.001		<0.001	0.001 (J)	<0.001	<0.001	<0.001
11/8/2018	<0.001			0.00085 (J)	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			0.000143 (J)	0.000877 (J)			<0.001
4/17/2019	<0.001		<0.001	0.000915 (J)	<0.001	<0.001	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				<0.001
9/30/2019				0.00112 (J)	<0.001	0.000155 (J)	
2/21/2020	<0.001		<0.001	0.000962 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.00107 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	0.00084 (J)	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	0.000615 (J)			<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.25	2.6 (o)		1.1	3.7	18	0.65
5/17/2016	0.84				3.4	23	0.68
5/18/2016		1.3		0.56			
7/12/2016	0.79						0.62
7/13/2016		1.1		0.95	2.8	18	
9/13/2016	0.42					19	0.25
9/14/2016		1.1		0.4	2.6		
11/19/2016	1.2	1		0.62	2.7	17	0.36
1/17/2017	1.4	0.87		1.2			0.66
1/18/2017					3.1	17	
3/22/2017	0.95						0.65
3/23/2017		0.74		0.87	2.8	15	
5/24/2017	1.3	0.84		0.81	3.1	19	0.72
10/16/2017	0.93	0.76		0.86	3.3	17	0.7
3/28/2018	1		2.8	0.97	2.7	16	
3/29/2018				0.61			0.55
6/2/2018	0.93		0.71	0.86	2.9	15	0.6
11/8/2018	1			0.84	3		
11/9/2018				0.61		14	0.59
2/11/2019	1				2.88	12.8	
2/12/2019			0.757	0.856			0.608
4/17/2019	0.893		0.755	0.711	2.77	13	
4/18/2019							0.55
9/27/2019	0.8		0.663				0.598
9/30/2019				0.826	3.08	13.6	
2/21/2020	1.02		0.648	0.841			0.552
2/22/2020					3.86	15	
4/14/2020	0.887		0.67	0.811	2.95	15.7	0.532
10/30/2020	0.945		0.672	1	3.84	16.4	
11/2/2020					6.69	15.3	0.535
3/17/2021							
3/26/2021	0.965		0.644	0.937			0.848

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	6.5	5.1		7.3	7.6	9	6.5
5/17/2016	4.9				6.4	13	5.1
5/18/2016		4.2		6			
7/12/2016	5.3						5
7/13/2016		4.7		6.6	6.3	10	
9/13/2016	4.8 (F1)					7.9	5.1
9/14/2016		4.5		5.8	6		
11/19/2016	7.1	6.1		7.8	7	9.3	6.5
1/17/2017	5.8	5.4		8.4			5.9
1/18/2017					6.7	8.5	
3/22/2017	4.9						5.1
3/23/2017		5.1		6.8	6	8.5	
5/24/2017	5.9	5.5		7.9	7.4	11	5.9
10/16/2017	5.7	6.1		7.7	6.6	9.7	5.6
3/28/2018	5.7		6.7	7.9	6.5	8.8	
3/29/2018							5.3
6/2/2018	4.7		5.8	7.7	6.1	8.3	4.6
11/8/2018	5.6			8.5	6.6		
11/9/2018			7.2			9.7	4.9
2/11/2019	4.84				6.31	8.84	
2/12/2019			8.4	7.89			4.72
4/17/2019	4.99		8.03	7.71	6.68	9.24	
4/18/2019							4.64
9/27/2019	5.08		8.37				5.02
9/30/2019				7.07	5.45	8.59	
4/14/2020	4.91		7.57	8.75	5.93	8.71	4.68
10/30/2020	5.55		7.59	9.58	6.49	8.93	
11/2/2020							4.91
3/17/2021					7.55	9.6	
3/26/2021	5.92		6.21	8.32			8.5

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	<0.002		<0.002	0.0015 (J)	0.0012 (J)	<0.002
5/17/2016	<0.002				<0.002	<0.002	<0.002
5/18/2016		<0.002		<0.002			
7/12/2016	<0.002						<0.002
7/13/2016		0.0028		0.003	0.0015 (J)	0.0024 (J)	
9/13/2016	<0.002					<0.002	<0.002
9/14/2016		0.0014 (J)		<0.002	<0.002		
11/19/2016	<0.002	<0.002		<0.002	0.0011 (J)	<0.002	<0.002
1/17/2017	<0.002	<0.002		<0.002			<0.002
1/18/2017					<0.002	<0.002	
3/22/2017	<0.002						<0.002
3/23/2017		<0.002		<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002		<0.002	<0.002	<0.002	0.005	
3/29/2018							<0.002
6/2/2018	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002
11/8/2018	<0.002			<0.002	<0.002		
11/9/2018			<0.002			<0.002	<0.002
2/11/2019	<0.002				<0.002	<0.002	
2/12/2019			<0.002	0.00165 (J)			<0.002
4/17/2019	<0.002		<0.002	<0.002	<0.002	<0.002	
4/18/2019							<0.002
9/27/2019	0.00286		0.00284				0.00206 (J)
9/30/2019				<0.002	<0.002	<0.002	
2/21/2020	<0.002		<0.002	<0.002			<0.002
2/22/2020					<0.002	<0.002	
10/30/2020	<0.002		<0.002	<0.002	<0.002	<0.002	
11/2/2020							<0.002
3/17/2021					<0.002	<0.002	
3/26/2021	<0.002		<0.002	<0.002			<0.002

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/18/2021 9:49 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0005	0.00048 (J)		0.0055	0.00094 (J)	<0.0005	0.0011 (J)
5/17/2016	0.00099 (J)				0.0007 (J)	<0.0005	0.001 (J)
5/18/2016		<0.0005		0.0059			
7/12/2016	0.00093 (J)						0.00091 (J)
7/13/2016		0.001 (J)		0.0048	0.0016 (J)	0.00042 (J)	
9/13/2016	0.0011 (J)					<0.0005	0.001 (J)
9/14/2016		0.00051 (J)		0.0063	0.0011 (J)		
11/19/2016	0.001 (J)	0.0005 (J)		0.0056	0.0012 (J)	<0.0005	0.00083 (J)
1/17/2017	0.00088 (J)	0.00049 (J)		0.0046			0.00091 (J)
1/18/2017					0.0011 (J)	<0.0005	
3/22/2017	0.001 (J)						0.00098 (J)
3/23/2017		0.00057 (J)		0.0049	0.0011 (J)	<0.0005	
5/24/2017	0.00093 (J)	0.00057 (J)		0.0052	0.0012 (J)	<0.0005	0.00098 (J)
3/28/2018	0.00092 (J)		0.00098 (J)	0.0063	0.00095 (J)	<0.0005	
3/29/2018							0.00063 (J)
6/2/2018	0.001 (J)		0.0009 (J)	0.0068	0.0012 (J)	<0.0005	0.00087 (J)
11/8/2018	0.001 (J)			0.0068	0.0011 (J)		
11/9/2018			0.00075 (J)			<0.0005	0.00076 (J)
2/11/2019	0.000768 (J)				0.00093 (J)	<0.0005	
2/12/2019			0.000896 (J)	0.00552			0.000661 (J)
4/17/2019	0.000825 (J)		0.00106 (J)	0.00603	0.00116 (J)	<0.0005	
4/18/2019							0.000705 (J)
9/27/2019	0.000783 (J)		0.000885 (J)				0.00071 (J)
9/30/2019				0.0062	0.001 (J)	<0.0005	
2/21/2020	0.00073 (J)		0.000909 (J)	0.00576			0.000634 (J)
2/22/2020					0.000907 (J)	<0.0005	
4/14/2020	0.000853 (J)		0.000899 (J)	0.00633	0.00105 (J)	<0.0005	0.000684 (J)
10/30/2020	0.000924 (J)		0.000972 (J)	0.00657	0.00102 (J)	<0.0005	
11/2/2020							0.000729 (J)
3/17/2021					0.00208	<0.0005	
3/26/2021	0.000961		0.000744	0.00339			0.000995

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/18/2021 9:49 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5		<5	<5	0.549	<5
5/17/2016	0.813				<5	0.551	<5
5/18/2016		0.471		<5			
7/12/2016	-0.00163 (U)						0.165 (U)
7/13/2016		0.401		0.27 (U)	0.0365 (U)	0.859	
9/13/2016	0.41 (U)					0.367 (U)	0.341 (U)
9/14/2016		-0.033 (U)		-0.0909 (U)	0.3 (U)		
11/19/2016	0.783	0.358		0.416	<5 (U)	<5 (U)	<5 (U)
1/17/2017	0.613	0.799		0.412 (U)			0.124 (U)
1/18/2017					0.235 (U)	0.289 (U)	
3/22/2017	0.241 (U)						0.0719 (U)
3/23/2017		0.182 (U)		0.0761 (U)	0.168 (U)	0.554	
5/24/2017	0.325	0.404		0.0415 (U)	-0.0607 (U)	0.831	0.441
3/28/2018	0.318 (U)		0.629	0.398	0.42	0.458	
3/29/2018							0.731
6/2/2018	0.222 (U)		-0.478 (U)	-0.253 (U)	0.0844 (U)	0.226 (U)	0.303 (U)
11/8/2018	0.117 (U)			0.343 (U)	0.367 (U)		
11/9/2018			0.179 (U)			0.298 (U)	0.00226 (U)
2/11/2019	0.493				0.0402 (U)	0.15 (U)	
2/12/2019		0.432		0.581			0.094 (U)
4/17/2019	0.729		0.648	0.646	0.493	0.326 (U)	
4/18/2019							0.48
9/27/2019	0.36 (U)		0.422 (U)				0.497
9/30/2019				1	0.404		
2/21/2020	0.268 (U)		0.23 (U)	0.126 (U)			0.375
2/22/2020					0.53	0.47	
4/14/2020	0.324 (U)		0.307 (U)	0.338	0.0408 (U)	0.376 (U)	0.329 (U)
10/30/2020	0.497		1.02	0.485	0.344	0.528	
11/2/2020							0.535
3/17/2021					0.312 (U)	0.0889 (U)	
3/26/2021	0.804		0.526	0.78			0.813

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
5/17/2016	<0.1				0.04 (J)	0.07 (J)	<0.1
5/18/2016		<0.1		<0.1			
7/12/2016	<0.1						<0.1
7/13/2016		<0.1		<0.1	0.05 (J)	0.08 (J)	
9/13/2016	<0.1					0.06 (J)	<0.1
9/14/2016		<0.1		<0.1	0.04 (J)		
11/19/2016	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
1/17/2017	<0.1	<0.1		<0.1			<0.1
1/18/2017					<0.1	0.05 (J)	
3/22/2017	<0.1						<0.1
3/23/2017		<0.1		<0.1	<0.1	0.05 (J)	
5/24/2017	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1 (D)
10/16/2017	<0.1	<0.1		<0.1	<0.1	0.06 (J)	<0.1
3/28/2018	<0.1		<0.1	<0.1	0.04 (J)	0.06 (J)	
3/29/2018							<0.1
6/2/2018	<0.1		<0.1	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1			<0.1	0.05 (J)		
11/9/2018			<0.1			0.06 (J)	<0.1
2/11/2019	<0.1				<0.1	0.0368 (J)	
2/12/2019			<0.1	<0.1			<0.1
4/17/2019	<0.1		<0.1	<0.1	0.033 (J)	0.0421 (J)	
4/18/2019							<0.1
9/27/2019	<0.1		0.0313 (J)				<0.1
9/30/2019				<0.1	<0.1	0.045 (J)	
2/21/2020	<0.1		<0.1	<0.1			<0.1
2/22/2020					0.0317 (J)	0.0434 (J)	
4/14/2020	0.0532 (J)		0.0537 (J)	0.034 (J)	0.0508 (J)	0.059 (J)	0.0415 (J)
10/30/2020	<0.1		<0.1	<0.1	<0.1	<0.1	
11/2/2020							<0.1
3/17/2021					0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1		<0.1	<0.1			<0.1

Time Series

Constituent: Lead (mg/L) Analysis Run 5/18/2021 9:49 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	0.00039 (J)	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.001		0.00056 (J)	<0.001		
11/19/2016	<0.001	<0.001		<0.001	0.00042 (J)	<0.001	<0.001
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		0.00038 (J)	<0.001	<0.001	
5/24/2017	<0.001	<0.001		0.00036 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019				<0.001	0.000139 (J)		<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				0.000129 (J)
9/30/2019				0.000322 (J)	0.000191 (J)	0.000152 (J)	
2/21/2020	<0.001		<0.001	0.00015 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.000236 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	0.000136 (J)	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					0.000153 (J)	<0.001	
3/26/2021	<0.001		<0.001	0.000145 (J)			<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	<0.005		<0.005	0.044	0.17	<0.005
5/17/2016	0.0037 (J)				0.028	0.2	<0.005
5/18/2016		<0.005		<0.005			
7/12/2016	0.012 (o)						<0.005
7/13/2016		<0.005		<0.005	0.026	0.17	
9/13/2016	<0.005					0.17	<0.005
9/14/2016		<0.005		<0.005	0.026		
11/19/2016	<0.005	<0.005		<0.005	0.026	0.18	0.0035 (J)
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					0.027	0.2	
3/22/2017	<0.005						<0.005
3/23/2017		<0.005		<0.005	0.024	0.19	
5/24/2017	<0.005	<0.005		<0.005	0.027	0.21	<0.005
3/28/2018	<0.005		0.0026 (J)	0.0023 (J)	0.021	0.23	
3/29/2018							0.0026 (J)
6/2/2018	0.0017 (J)		0.0021 (J)	0.002 (J)	0.022	0.19	0.0029 (J)
11/8/2018	0.0023 (J)			0.0024 (J)	0.025		
11/9/2018			0.0024 (J)			0.18	0.0027 (J)
2/11/2019	<0.005				0.0229	0.161	
2/12/2019		<0.005		<0.005			<0.005
4/17/2019	0.00229 (J)		0.00191 (J)	0.00197 (J)	0.0236	0.174	
4/18/2019							0.00238 (J)
9/27/2019	0.00346 (J)		<0.005				0.00375 (J)
9/30/2019				0.00687	0.0249	0.166	
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					0.0211	0.169	
4/14/2020	0.00505		<0.005	<0.005	0.0224	0.192	<0.005
10/30/2020	<0.005		<0.005	<0.005	0.0267	0.194	
11/2/2020							<0.005
3/17/2021					0.0174	0.12	
3/26/2021	<0.005		<0.005	<0.005			<0.005

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0002	<0.0002		8.4E-05 (JB)	7.3E-05 (JB)	7.4E-05 (JB)	7.1E-05 (JB)
5/17/2016	<0.0002				<0.0002	<0.0002	<0.0002
5/18/2016		<0.0002		<0.0002			
7/12/2016	<0.0002						<0.0002
7/13/2016		<0.0002		<0.0002	<0.0002	<0.0002	
9/13/2016	<0.0002			<0.0002		<0.0002	<0.0002
9/14/2016		<0.0002		<0.0002	<0.0002		
11/19/2016	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002	<0.0002		<0.0002			<0.0002
1/18/2017					<0.0002	<0.0002	
3/22/2017	0.00011 (J)						<0.0002
3/23/2017		0.00013 (J)		0.00013 (J)	0.00013 (J)	<0.0002	
5/24/2017	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
3/28/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/29/2018							<0.0002
2/11/2019	<0.0002				<0.0002	<0.0002	
2/12/2019		<0.0002		<0.0002			<0.0002
4/17/2019	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
4/18/2019							<0.0002
2/21/2020	<0.0002		<0.0002	<0.0002			<0.0002
2/22/2020					<0.0002	<0.0002	
10/30/2020	<0.0002		<0.0002	0.000497	<0.0002	<0.0002	
11/2/2020							<0.0002
3/17/2021					<0.0002	<0.0002	
3/26/2021	<0.0002		<0.0002	<0.0002			0.000235

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/18/2021 9:49 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.0019 (J)		<0.005	<0.005	0.0026 (J)	<0.005
5/17/2016	<0.005				<0.005	0.0011 (J)	<0.005
5/18/2016		0.00096 (J)		<0.005			
7/12/2016	<0.005						<0.005
7/13/2016		0.0017 (J)		<0.005	<0.005	0.0079 (J)	
9/13/2016	<0.005					0.0038 (J)	<0.005
9/14/2016		0.0018 (J)		<0.005	<0.005		
11/19/2016	<0.005	<0.005		<0.005	<0.005	0.0014 (J)	<0.005
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					<0.005	0.001 (J)	
3/22/2017	<0.005						0.0038 (J)
3/23/2017		<0.005		<0.005	<0.005	<0.005	
5/24/2017	<0.005	<0.005		<0.005	<0.005	0.0014 (J)	<0.005
3/28/2018	<0.005		<0.005	<0.005	<0.005	<0.005	
3/29/2018							<0.005
11/8/2018	<0.005			<0.005	<0.005		
11/9/2018			<0.005			<0.005	<0.005
2/11/2019	<0.005				<0.005	<0.005	
2/12/2019			<0.005	<0.005			<0.005
4/17/2019	<0.005		<0.005	<0.005	<0.005	<0.005	
4/18/2019							<0.005
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					0.000616 (J)	0.000627 (J)	
4/14/2020	<0.005		<0.005	<0.005	<0.005	0.000747 (J)	<0.005
10/30/2020	<0.005		<0.005	<0.005	<0.005	<0.005	
11/2/2020							<0.005
3/17/2021					0.0032 (J)	0.00328 (J)	
3/26/2021	<0.005		<0.005	<0.005			<0.005

Time Series

Constituent: pH (SU) Analysis Run 5/18/2021 9:49 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	5.12	5.52		5.05	5.38	6.64	4.89
5/17/2016	5.23				5.32	6.52	4.92
5/18/2016		5.24		4.86			
7/12/2016	5.77						4.93
7/13/2016		5.17		5.11	5.31	6.63	
9/13/2016	4.98					6.46	4.76
9/14/2016		5.04		4.84	5.21		
11/19/2016	4.82	4.88		4.74	5.12	6.38	4.56
1/17/2017	5.04	5.04		4.95			4.86
1/18/2017					5.22	6.47	
3/22/2017	4.73						4.66
3/23/2017		4.66		4.66	5.01	6.19	
5/24/2017	5.01	4.93		4.86	5.19	6.34	4.83
10/16/2017	4.59	4.65		4.47	4.96	6.23	4.53
3/28/2018	4.87		5.39	4.93	5.23	6.22	
3/29/2018							4.87
6/2/2018	4.92		5.06	4.83	5.22	6.24	4.87
11/8/2018	5			4.83	5.29		
11/9/2018			4.92			6.27	4.92
2/11/2019	4.7				5	6.08	
2/12/2019			4.86	4.65			4.79
4/17/2019	4.9		4.79	4.71	5.13	6.14	
4/18/2019							4.9
2/21/2020	4.86		4.73	4.55			4.8
2/22/2020					5.3	6.13	
4/14/2020	5.23		4.87	4.7	5.45	6.26	4.94
10/30/2020	5		4.87	4.8	5.32	6.19	
11/2/2020							4.92
3/17/2021					5.62	6.14	
3/26/2021	4.86		4.7	4.54			4.67

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.00041 (J)		0.00033 (J)	<0.005	<0.005	<0.005
5/17/2016	<0.005				<0.005	<0.005	0.00026 (J)
5/18/2016		<0.005		<0.005			
7/12/2016	<0.005						<0.005
7/13/2016		<0.005		0.00041 (J)	<0.005	<0.005	
9/13/2016	<0.005			0.00079 (J)	<0.005	<0.005	0.00031 (J)
9/14/2016		<0.005					
11/19/2016	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					<0.005	<0.005	
3/22/2017	<0.005						0.0021
3/23/2017		<0.005		<0.005	<0.005	<0.005	
5/24/2017	<0.005	0.00026 (J)		0.00028 (J)	<0.005	0.00033 (J)	0.00026 (J)
3/28/2018	<0.005		0.00024 (J)	0.00038 (J)	<0.005	<0.005	
3/29/2018							0.00036 (J)
6/2/2018	0.00064 (J)		<0.005	0.00031 (J)	<0.005	<0.005	<0.005
11/8/2018	0.0025			0.00088 (J)	<0.005		
11/9/2018			0.00098 (J)			<0.005	<0.005
2/11/2019	<0.005				<0.005	<0.005	
2/12/2019			<0.005	<0.005			<0.005
4/17/2019	<0.005		<0.005	<0.005	<0.005	<0.005	
4/18/2019							<0.005
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					<0.005	<0.005	
10/30/2020	<0.005		<0.005	<0.005	<0.005	<0.005	
11/2/2020							<0.005
3/17/2021					<0.005	<0.005	
3/26/2021	<0.005		<0.005	<0.005			<0.005

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5		<5	2.3 (J)	4.5 (J)	<5
5/17/2016	<5				2.3 (J)	17	<5
5/18/2016		<5		<5			
7/12/2016	<5						<5
7/13/2016		<5		1.5 (J)	2.4 (J)	15	
9/13/2016	<5					3.4 (J)	<5
9/14/2016		<5		1.6 (J)	2.4 (J)		
11/19/2016	<5	<5		1.8 (J)	3.3 (J)	3.5 (J)	1.5 (J)
1/17/2017	<5	<5		<5			<5
1/18/2017					2.3 (J)	3.2 (J)	
3/22/2017	<5						1.9 (J)
3/23/2017		1.8 (J)		2.3 (J)	3.2 (J)	3.7 (J)	
5/24/2017	<5	1.5 (J)		1.6 (J)	2.4 (J)	8.8	<5
10/16/2017	<5	<5		<5	2 (J)	4 (J)	<5
3/28/2018	<5		1.7 (J)	1.6 (J)	2.4 (J)	3.3 (J)	
3/29/2018							<5
6/2/2018	1.9 (J)		3 (J)	2.9 (J)	3.7 (J)	4.3 (J)	2.8 (J)
11/8/2018	<5			1.6 (J)	2.7 (J)		
11/9/2018			<5			2.3 (J)	<5
2/11/2019	0.774 (J)				2.5	2.64	
2/12/2019			1.97	1.97			1.35
4/17/2019	1.43		2.82	2.5	3.15	3.27	
4/18/2019							1.82
9/27/2019	1.03		2.19				1.22
9/30/2019				1.64	2.34	2.82	
4/14/2020	0.928 (J)		2.71	1.62	2.99	4.2	1.18
10/30/2020	0.91 (J)		3.97	1.44	2.84	4.76	
11/2/2020							1.08
3/17/2021					4.35	4.07	
3/26/2021	1.49		2.04	3.25			2

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/18/2021 9:49 PM
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.001		9.5E-05 (J)	<0.001		
11/19/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		<0.001	<0.001	<0.001	
5/24/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			8.5E-05 (J)	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
2/21/2020	<0.001		0.000486 (J)	0.000276 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.000158 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	<0.001	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	<0.001			<0.001

Time Series

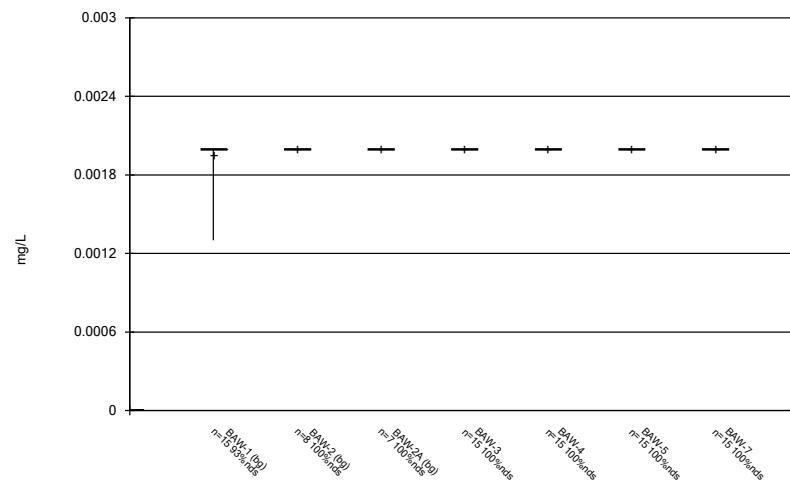
Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/18/2021 9:49 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

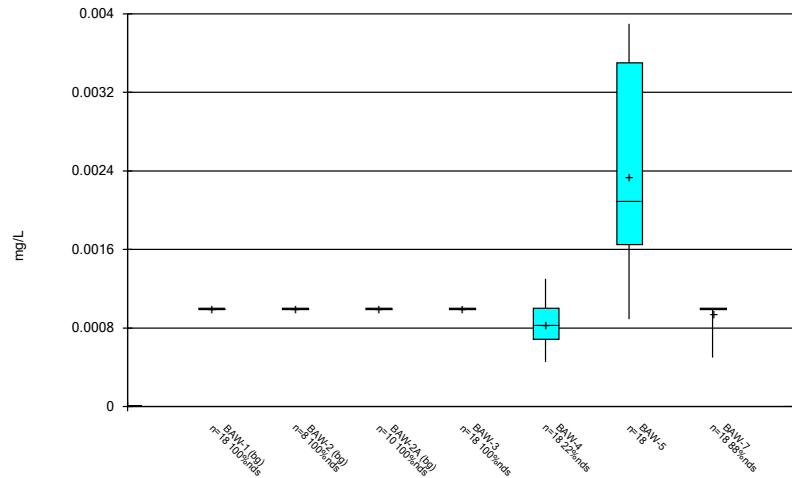
	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	20	30		30	46	88	22
5/17/2016	24				52	110	30
5/18/2016		20		20			
7/12/2016	24						26
7/13/2016		40		40	36	120	
9/13/2016	18			<10		92	28
9/14/2016		10			38		
11/19/2016	20	28		22	50	94	38
1/17/2017	<10	14		14			10
1/18/2017					18	68	
3/22/2017	12						22
3/23/2017		16		28	32	80	
5/24/2017	16 (D)	12		18	32	90	22
10/16/2017	58	50		36	64	110	34
3/28/2018	18		30	36	56	86	
3/29/2018							50
6/2/2018	6		26	6	22	72	<10
11/8/2018	12			34	170		
11/9/2018			94			38	20
2/11/2019	<10				23	60	
2/12/2019			22	12			<10
4/17/2019	16		22	27	37	82	
4/18/2019							39
9/27/2019	26		25				<10
9/30/2019				<10	<10	55	
4/14/2020	25		38	31	30	77	24
10/30/2020	34		48	40	40	88	
11/2/2020							28
3/17/2021					44	79	
3/26/2021	24		24	37			38

FIGURE B.

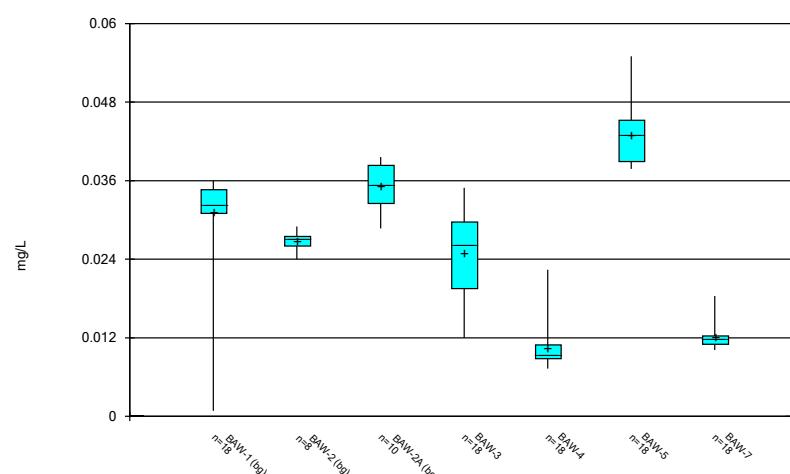
Box & Whiskers Plot



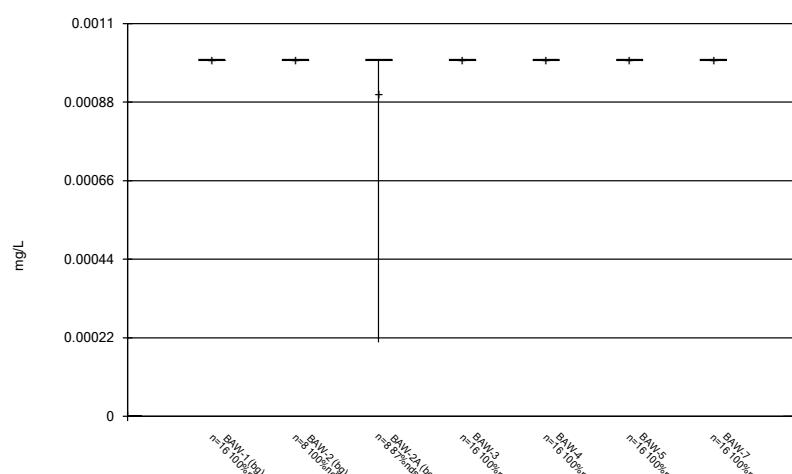
Box & Whiskers Plot



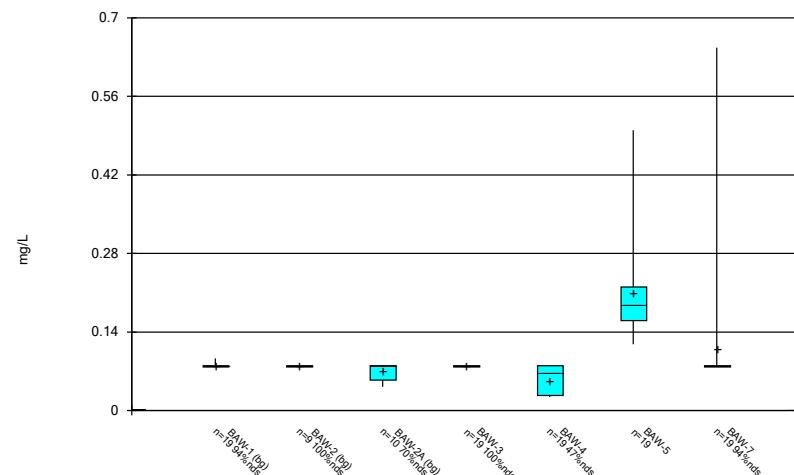
Box & Whiskers Plot



Box & Whiskers Plot



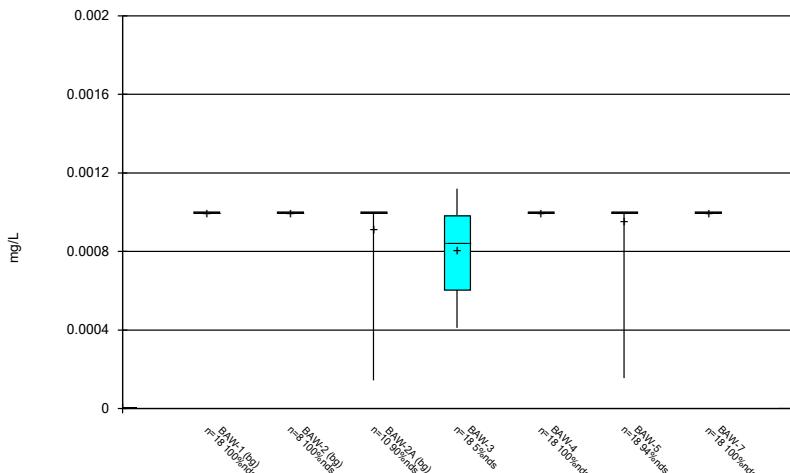
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

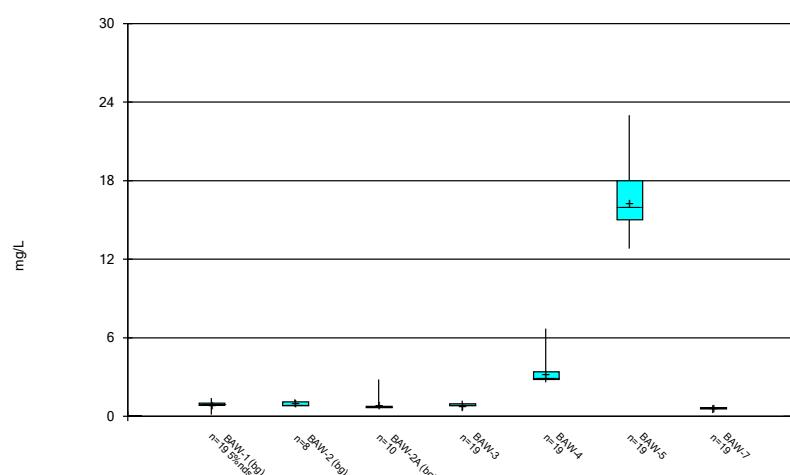
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

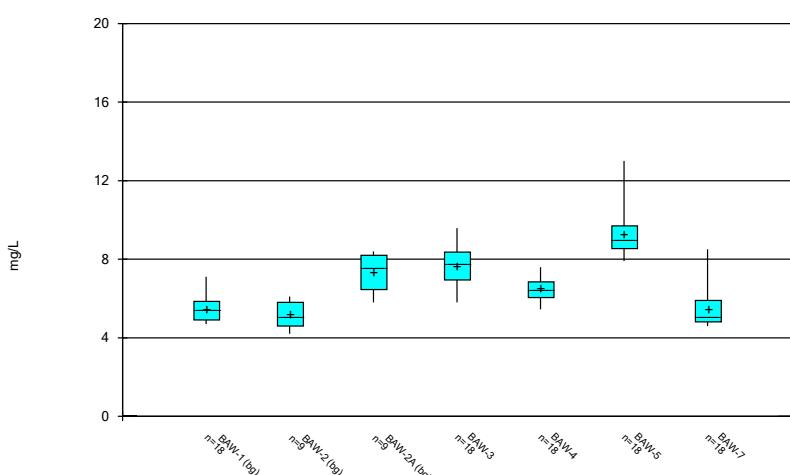
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

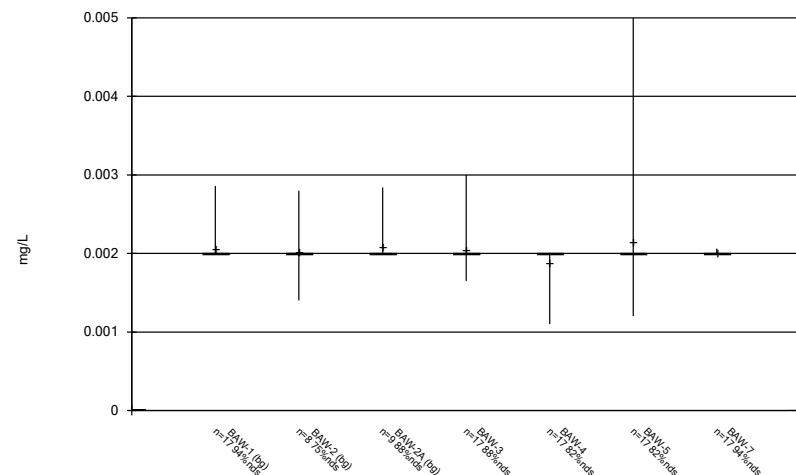
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/18/2021 9:50 PM

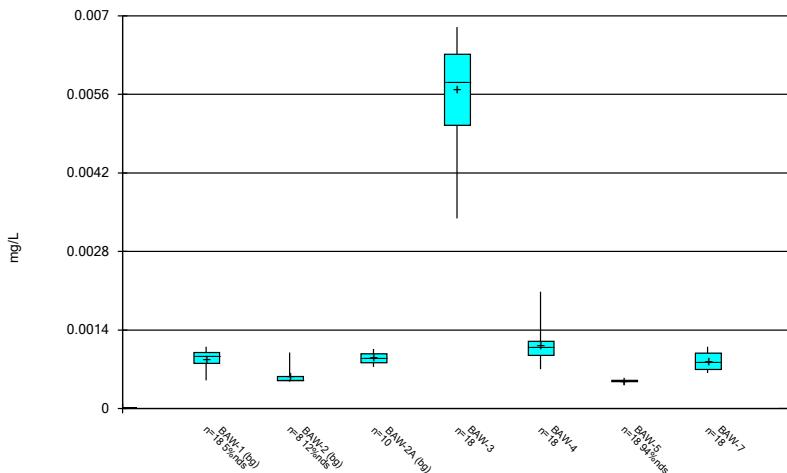
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



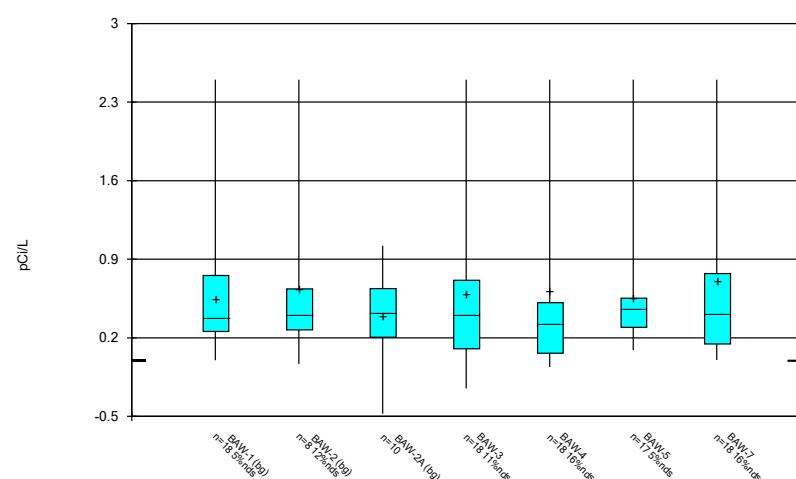
Constituent: Chromium Analysis Run 5/18/2021 9:50 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



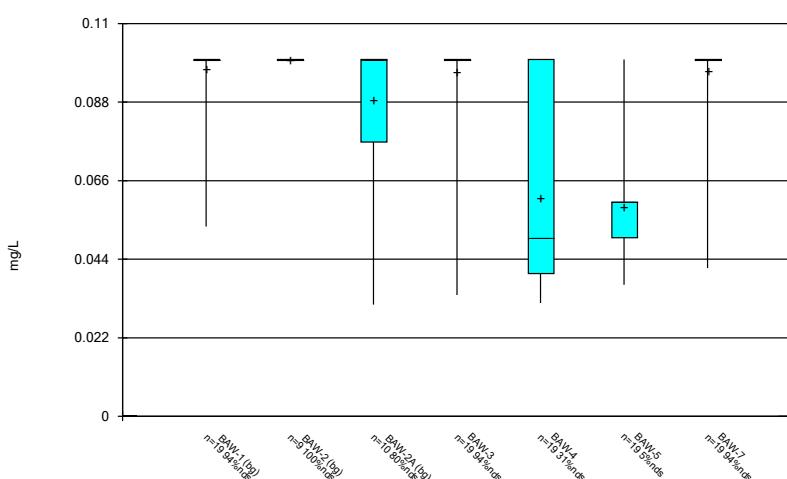
Constituent: Cobalt Analysis Run 5/18/2021 9:50 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



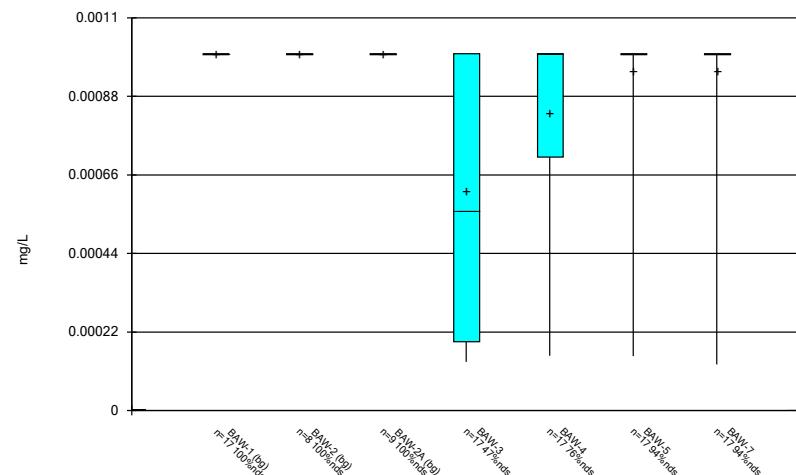
Constituent: Combined Radium 226 + 228 Analysis Run 5/18/2021 9:50 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/18/2021 9:50 PM
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

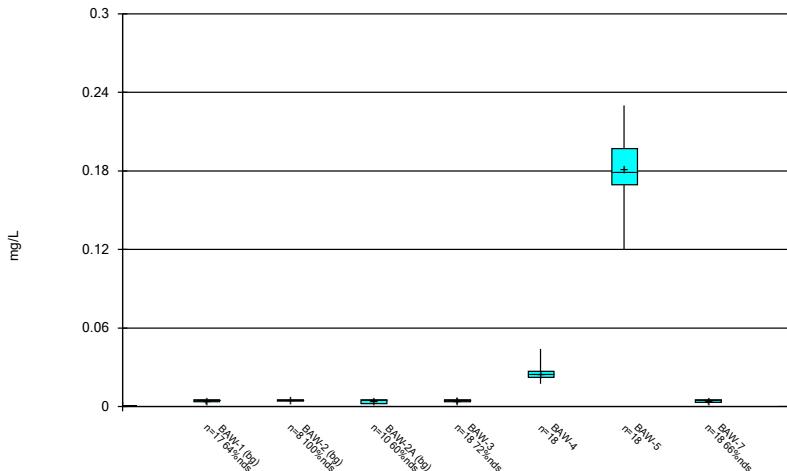
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

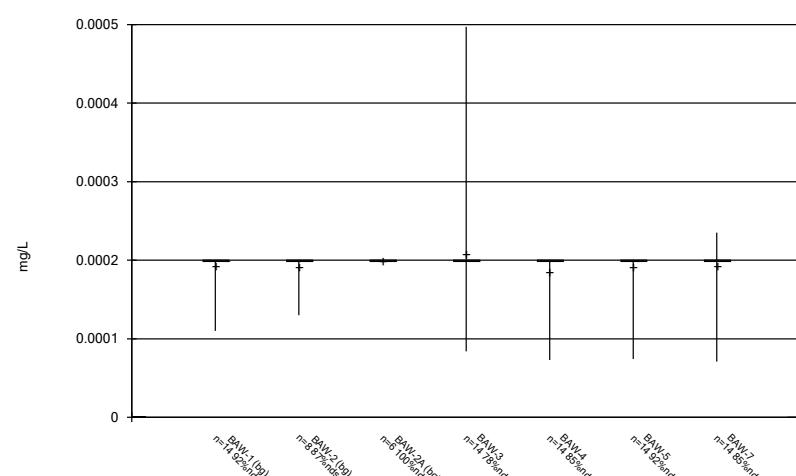
Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

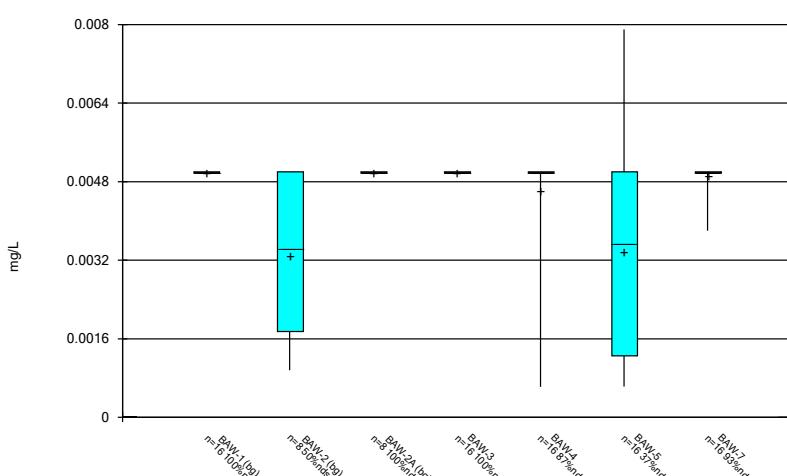
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

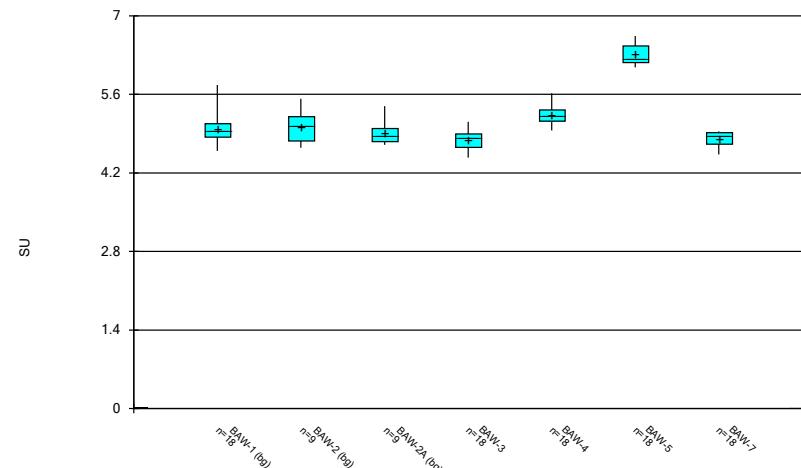
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

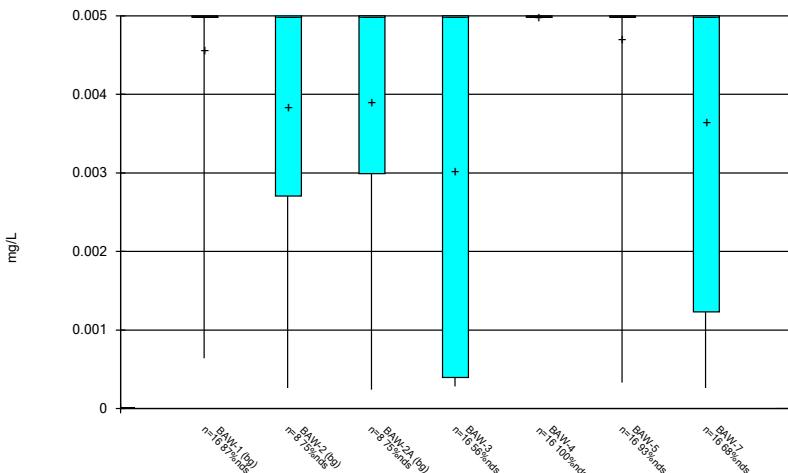
Box & Whiskers Plot



Constituent: pH Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

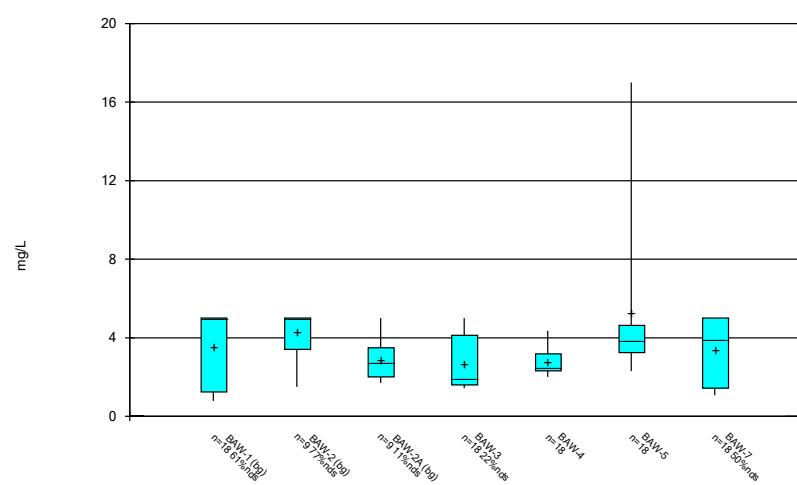
Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

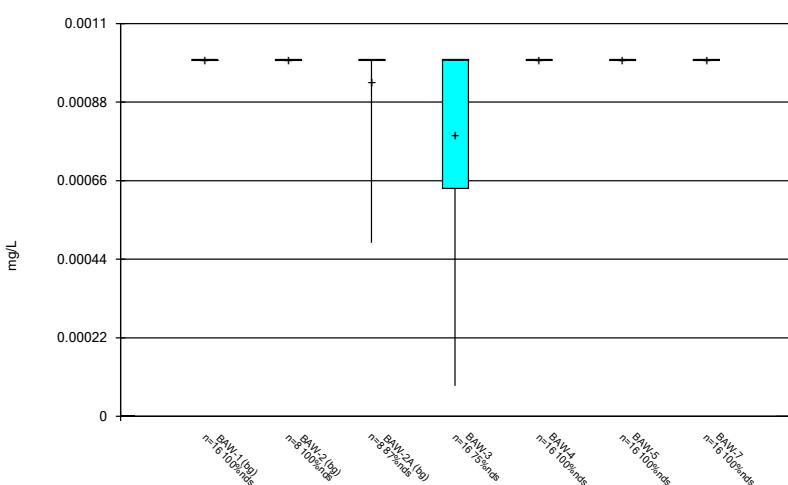
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

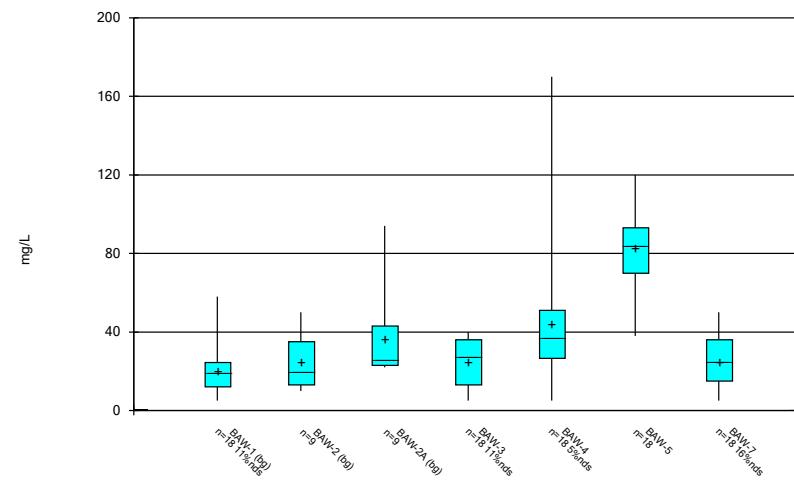
Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/18/2021 9:50 PM

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:51 PM

	BAW-2 Calcium (mg/L)	BAW-1 Lithium (mg/L)
3/23/2016	2.6 (o)	
7/12/2016		0.012 (o)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:54 PM

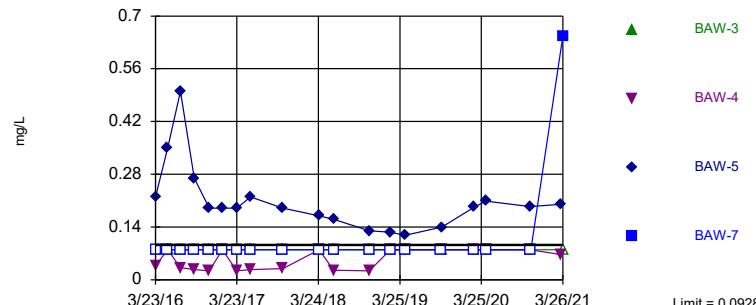
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-5	0.0928	n/a	3/17/2021	0.2	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/26/2021	0.647	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/17/2021	6.69	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/17/2021	15.3	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	7.971	n/a	3/26/2021	8.32	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-5	7.971	n/a	3/17/2021	9.6	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-7	7.971	n/a	3/26/2021	8.5	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
pH (SU)	BAW-4	5.429	4.512	3/17/2021	5.62	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.429	4.512	3/17/2021	6.14	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	57.49	n/a	3/17/2021	79	Yes	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:54 PM

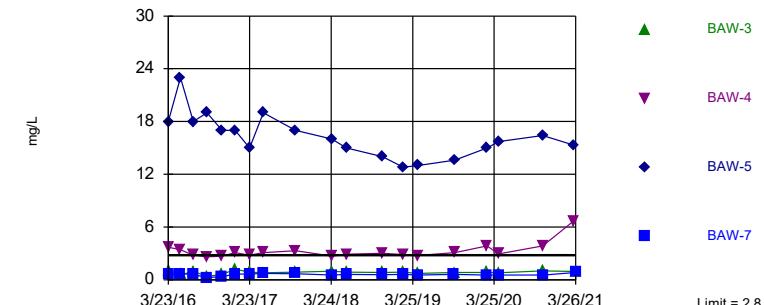
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg_N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	3/26/2021	0.08ND	No	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-4	0.0928	n/a	3/17/2021	0.0673J	No	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	3/17/2021	0.2	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	3/26/2021	0.647	Yes	38	n/a	n/a	89.47	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-3	2.8	n/a	3/26/2021	0.937	No	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	3/17/2021	6.69	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	3/17/2021	15.3	Yes	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-7	2.8	n/a	3/26/2021	0.848	No	37	n/a	n/a	2.703	n/a	n/a	0.001337	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	7.971	n/a	3/26/2021	8.32	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-4	7.971	n/a	3/17/2021	7.55	No	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-5	7.971	n/a	3/17/2021	9.6	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Chloride (mg/L)	BAW-7	7.971	n/a	3/26/2021	8.5	Yes	36	2.409	0.2243	0	None	sqrt(x)	0.00188	Param Inter 1 of 2
Fluoride (mg/L)	BAW-3	0.1	n/a	3/26/2021	0.1ND	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-4	0.1	n/a	3/17/2021	0.0544J	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	3/17/2021	0.0575J	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-7	0.1	n/a	3/26/2021	0.1ND	No	38	n/a	n/a	92.11	n/a	n/a	0.001271	NP Inter (NDs) 1 of 2
pH (SU)	BAW-3	5.429	4.512	3/26/2021	4.54	No	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-4	5.429	4.512	3/17/2021	5.62	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.429	4.512	3/17/2021	6.14	Yes	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-7	5.429	4.512	3/26/2021	4.67	No	36	4.971	0.2485	0	None	No	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5	n/a	3/26/2021	3.25	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BAW-4	5	n/a	3/17/2021	4.35	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BAW-5	5	n/a	3/17/2021	4.07	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BAW-7	5	n/a	3/26/2021	2	No	36	n/a	n/a	52.78	n/a	n/a	0.001402	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	BAW-3	57.49	n/a	3/26/2021	37	No	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	57.49	n/a	3/17/2021	44	No	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	57.49	n/a	3/17/2021	79	Yes	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-7	57.49	n/a	3/26/2021	38	No	36	4.81	1.502	5.556	None	sqrt(x)	0.00188	Param Inter 1 of 2

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 38 background values. 89.47% NDs. Annual per-constituent alpha = 0.01013. Individual comparison alpha = 0.001271 (1 of 2). Comparing 4 points to limit.

Prediction Limit
Interwell Non-parametric

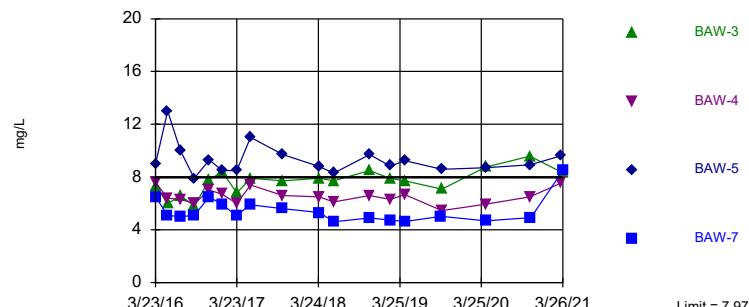


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 37 background values. 2.703% NDs. Annual per-constituent alpha = 0.01064. Individual comparison alpha = 0.001337 (1 of 2). Comparing 4 points to limit.

Constituent: Boron Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

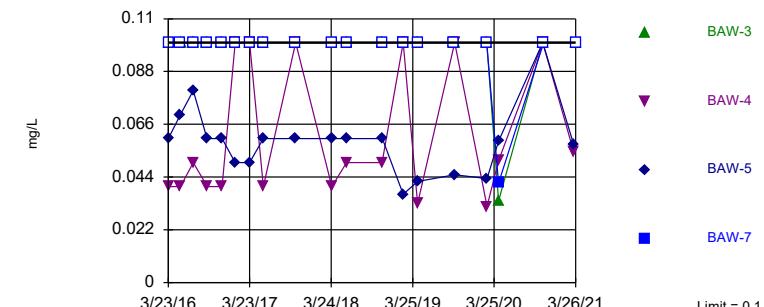
Constituent: Calcium Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=2.409, Std. Dev.=0.2243, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9268, critical = 0.912. Kappa = 1.845 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Prediction Limit
Interwell Non-parametric



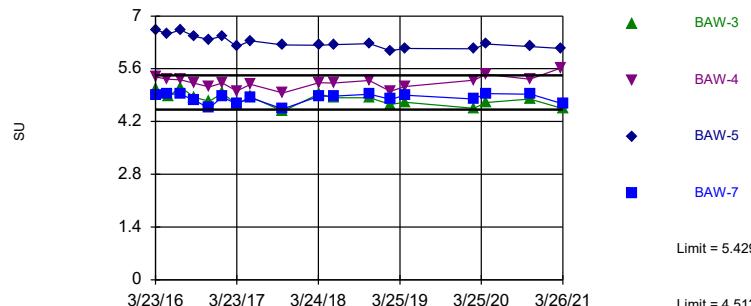
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 38 background values. 92.11% NDs. Annual per-constituent alpha = 0.01013. Individual comparison alpha = 0.001271 (1 of 2). Comparing 4 points to limit.

Constituent: Chloride Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Fluoride Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Exceeds Limits: BAW-4, BAW-5

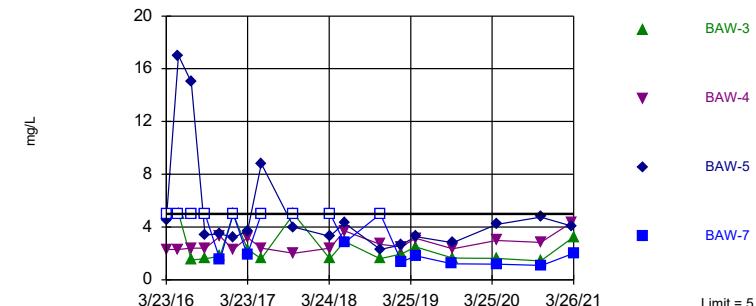
Prediction Limit
Interwell Parametric



Background Data Summary: Mean=4.971, Std. Dev.=0.2485, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9209, critical = 0.912. Kappa = 1.845 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009398. Comparing 4 points to limit.

Within Limit

Prediction Limit
Interwell Non-parametric



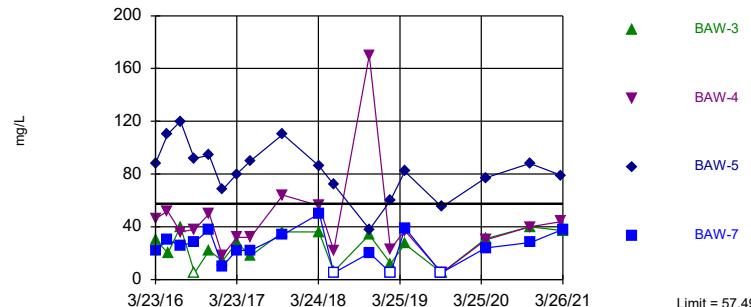
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 52.78% NDs. Annual per-constituent alpha = 0.01116. Individual comparison alpha = 0.001402 (1 of 2). Comparing 4 points to limit.

Constituent: pH Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Sulfate Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Exceeds Limit: BAW-5

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=4.81, Std. Dev.=1.502, n=36, 5.556% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9412, critical = 0.912. Kappa = 1.845 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/18/2021 9:52 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-3	BAW-7	BAW-4	BAW-5	BAW-2A (bg)
3/23/2016	<0.08	<0.08	<0.08	<0.08	0.037 (J)	0.22	
5/17/2016	<0.08			<0.08	<0.08		0.35
5/18/2016		<0.08	<0.08				
7/12/2016	<0.08			<0.08			
7/13/2016		<0.08	<0.08		0.032 (J)	0.5	
9/13/2016	<0.08			<0.08			0.27
9/14/2016		<0.08	<0.08		0.027 (J)		
11/19/2016	<0.08	<0.08	<0.08	<0.08	0.024 (J)	0.19	
1/17/2017	<0.08	<0.08	<0.08	<0.08			
1/18/2017					<0.08	0.19	
3/22/2017	<0.08			<0.08			
3/23/2017		<0.08	<0.08		0.024 (J)	0.19	
5/24/2017	<0.08	<0.08	<0.08	<0.08	0.027 (J)	0.22	
10/16/2017	<0.08	<0.08	<0.08	<0.08	0.03 (J)	0.19	
3/28/2018	<0.08		<0.08		<0.08	0.17	<0.08
3/29/2018				<0.08			
6/2/2018	<0.08		<0.08	<0.08	0.025 (J)	0.16	<0.08
11/8/2018	<0.08		<0.08		0.024 (J)		
11/9/2018				<0.08		0.13	<0.08
2/11/2019	<0.08				<0.08	0.126	
2/12/2019			<0.08	<0.08			<0.08
4/17/2019	<0.08		<0.08		<0.08	0.118	<0.08
4/18/2019				<0.08			
9/27/2019	<0.08			<0.08			<0.08
9/30/2019			<0.08		<0.08	0.14	
2/21/2020	0.0928		<0.08	<0.08			0.0589 (J)
2/22/2020					<0.08	0.193	
4/14/2020	<0.08		<0.08	<0.08	<0.08	0.209	0.0424 (J)
10/30/2020	<0.08		<0.08		<0.08	0.194	0.0495 (J)
11/2/2020				<0.08			
3/17/2021					0.0673 (J)	0.2	
3/26/2021	<0.08		<0.08	0.647			<0.08

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-4	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<0.25	0.65	18	1.1	3.7	2.6 (o)	
5/17/2016	0.84	0.68	23		3.4		
5/18/2016				0.56		1.3	
7/12/2016	0.79	0.62					
7/13/2016			18	0.95	2.8	1.1	
9/13/2016	0.42	0.25	19				
9/14/2016				0.4	2.6	1.1	
11/19/2016	1.2	0.36	17	0.62	2.7	1	
1/17/2017	1.4	0.66		1.2		0.87	
1/18/2017			17		3.1		
3/22/2017	0.95	0.65					
3/23/2017			15	0.87	2.8	0.74	
5/24/2017	1.3	0.72	19	0.81	3.1	0.84	
10/16/2017	0.93	0.7	17	0.86	3.3	0.76	
3/28/2018	1		16	0.97	2.7		2.8
3/29/2018		0.55					
6/2/2018	0.93	0.6	15	0.86	2.9		0.71
11/8/2018	1			0.84	3		
11/9/2018		0.59	14				0.61
2/11/2019	1		12.8		2.88		
2/12/2019		0.608		0.856			0.757
4/17/2019	0.893		13	0.711	2.77		0.755
4/18/2019		0.55					
9/27/2019	0.8	0.598					0.663
9/30/2019			13.6	0.826	3.08		
2/21/2020	1.02	0.552		0.841			0.648
2/22/2020			15		3.86		
4/14/2020	0.887	0.532	15.7	0.811	2.95		0.67
10/30/2020	0.945		16.4	1	3.84		0.672
11/2/2020		0.535		15.3		6.69	
3/17/2021							
3/26/2021	0.965	0.848		0.937			0.644

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-3	BAW-2 (bg)	BAW-7	BAW-5	BAW-4	BAW-2A (bg)
3/23/2016	6.5	7.3	5.1	6.5	9	7.6	
5/17/2016	4.9			5.1	13	6.4	
5/18/2016		6	4.2				
7/12/2016	5.3			5			
7/13/2016		6.6	4.7		10	6.3	
9/13/2016	4.8 (F1)			5.1	7.9		
9/14/2016		5.8	4.5			6	
11/19/2016	7.1	7.8	6.1	6.5	9.3	7	
1/17/2017	5.8	8.4	5.4	5.9			
1/18/2017					8.5	6.7	
3/22/2017	4.9			5.1			
3/23/2017		6.8	5.1		8.5	6	
5/24/2017	5.9	7.9	5.5	5.9	11	7.4	
10/16/2017	5.7	7.7	6.1	5.6	9.7	6.6	
3/28/2018	5.7	7.9			8.8	6.5	6.7
3/29/2018					5.3		
6/2/2018	4.7	7.7		4.6	8.3	6.1	5.8
11/8/2018	5.6	8.5				6.6	
11/9/2018				4.9	9.7		7.2
2/11/2019	4.84				8.84	6.31	
2/12/2019		7.89		4.72			8.4
4/17/2019	4.99	7.71			9.24	6.68	8.03
4/18/2019				4.64			
9/27/2019	5.08			5.02			8.37
9/30/2019		7.07			8.59	5.45	
4/14/2020	4.91	8.75		4.68	8.71	5.93	7.57
10/30/2020	5.55	9.58			8.93	6.49	7.59
11/2/2020				4.91			
3/17/2021					9.6	7.55	
3/26/2021	5.92	8.32		8.5			6.21

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-3	BAW-7	BAW-4	BAW-5	BAW-2A (bg)
3/23/2016	<0.1	<0.1	<0.1	<0.1	0.04 (J)	0.06 (J)	
5/17/2016	<0.1			<0.1	0.04 (J)	0.07 (J)	
5/18/2016		<0.1	<0.1				
7/12/2016	<0.1			<0.1			
7/13/2016		<0.1	<0.1		0.05 (J)	0.08 (J)	
9/13/2016	<0.1			<0.1		0.06 (J)	
9/14/2016		<0.1	<0.1		0.04 (J)		
11/19/2016	<0.1	<0.1	<0.1	<0.1	0.04 (J)	0.06 (J)	
1/17/2017	<0.1	<0.1	<0.1	<0.1			
1/18/2017					<0.1	0.05 (J)	
3/22/2017	<0.1			<0.1			
3/23/2017		<0.1	<0.1		<0.1	0.05 (J)	
5/24/2017	<0.1	<0.1	<0.1	<0.1 (D)	0.04 (J)	0.06 (J)	
10/16/2017	<0.1	<0.1	<0.1	<0.1	<0.1	0.06 (J)	
3/28/2018	<0.1		<0.1		0.04 (J)	0.06 (J)	<0.1
3/29/2018				<0.1			
6/2/2018	<0.1		<0.1	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1		<0.1		0.05 (J)		
11/9/2018				<0.1		0.06 (J)	<0.1
2/11/2019	<0.1				<0.1	0.0368 (J)	
2/12/2019			<0.1	<0.1			<0.1
4/17/2019	<0.1		<0.1		0.033 (J)	0.0421 (J)	<0.1
4/18/2019				<0.1			
9/27/2019	<0.1			<0.1			0.0313 (J)
9/30/2019			<0.1		<0.1	0.045 (J)	
2/21/2020	<0.1		<0.1	<0.1			<0.1
2/22/2020					0.0317 (J)	0.0434 (J)	
4/14/2020	0.0532 (J)		0.034 (J)	0.0415 (J)	0.0508 (J)	0.059 (J)	0.0537 (J)
10/30/2020	<0.1		<0.1		<0.1	<0.1	<0.1
11/2/2020				<0.1			
3/17/2021					0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1		<0.1	<0.1			<0.1

Prediction Limit

Constituent: pH (SU) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-3	BAW-2 (bg)	BAW-7	BAW-5	BAW-4	BAW-2A (bg)
3/23/2016	5.12	5.05	5.52	4.89	6.64	5.38	
5/17/2016	5.23			4.92	6.52	5.32	
5/18/2016		4.86	5.24				
7/12/2016	5.77			4.93			
7/13/2016		5.11	5.17		6.63	5.31	
9/13/2016	4.98			4.76	6.46		
9/14/2016		4.84	5.04			5.21	
11/19/2016	4.82	4.74	4.88	4.56	6.38	5.12	
1/17/2017	5.04	4.95	5.04	4.86			
1/18/2017					6.47	5.22	
3/22/2017	4.73			4.66			
3/23/2017		4.66	4.66		6.19	5.01	
5/24/2017	5.01	4.86	4.93	4.83	6.34	5.19	
10/16/2017	4.59	4.47	4.65	4.53	6.23	4.96	
3/28/2018	4.87	4.93			6.22	5.23	5.39
3/29/2018				4.87			
6/2/2018	4.92	4.83		4.87	6.24	5.22	5.06
11/8/2018	5	4.83				5.29	
11/9/2018				4.92	6.27		4.92
2/11/2019	4.7				6.08	5	
2/12/2019		4.65		4.79			4.86
4/17/2019	4.9	4.71			6.14	5.13	4.79
4/18/2019				4.9			
2/21/2020	4.86	4.55		4.8			4.73
2/22/2020					6.13	5.3	
4/14/2020	5.23	4.7		4.94	6.26	5.45	4.87
10/30/2020	5	4.8			6.19	5.32	4.87
11/2/2020				4.92			
3/17/2021					6.14	5.62	
3/26/2021	4.86	4.54		4.67			4.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-3	BAW-2 (bg)	BAW-7	BAW-5	BAW-4	BAW-2A (bg)
3/23/2016	<5	<5	<5	<5	4.5 (J)	2.3 (J)	
5/17/2016	<5			<5	17	2.3 (J)	
5/18/2016		<5	<5				
7/12/2016	<5			<5			
7/13/2016		1.5 (J)	<5		15	2.4 (J)	
9/13/2016	<5			<5	3.4 (J)		
9/14/2016		1.6 (J)	<5			2.4 (J)	
11/19/2016	<5	1.8 (J)	<5	1.5 (J)	3.5 (J)	3.3 (J)	
1/17/2017	<5	<5	<5	<5			
1/18/2017					3.2 (J)	2.3 (J)	
3/22/2017	<5			1.9 (J)			
3/23/2017		2.3 (J)	1.8 (J)		3.7 (J)	3.2 (J)	
5/24/2017	<5	1.6 (J)	1.5 (J)	<5	8.8	2.4 (J)	
10/16/2017	<5	<5	<5	<5	4 (J)	2 (J)	
3/28/2018	<5	1.6 (J)			3.3 (J)	2.4 (J)	1.7 (J)
3/29/2018				<5			
6/2/2018	1.9 (J)	2.9 (J)		2.8 (J)	4.3 (J)	3.7 (J)	3 (J)
11/8/2018	<5	1.6 (J)				2.7 (J)	
11/9/2018				<5	2.3 (J)		<5
2/11/2019	0.774 (J)				2.64	2.5	
2/12/2019		1.97		1.35			1.97
4/17/2019	1.43	2.5			3.27	3.15	2.82
4/18/2019				1.82			
9/27/2019	1.03			1.22			2.19
9/30/2019		1.64			2.82	2.34	
4/14/2020	0.928 (J)	1.62		1.18	4.2	2.99	2.71
10/30/2020	0.91 (J)	1.44			4.76	2.84	3.97
11/2/2020				1.08			
3/17/2021					4.07	4.35	
3/26/2021	1.49	3.25		2			2.04

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/18/2021 9:54 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-3	BAW-2 (bg)	BAW-7	BAW-5	BAW-4	BAW-2A (bg)
3/23/2016	20	30	30	22	88	46	
5/17/2016	24			30	110	52	
5/18/2016		20	20				
7/12/2016	24			26			
7/13/2016		40	40		120	36	
9/13/2016	18			28	92		
9/14/2016		<10	10			38	
11/19/2016	20	22	28	38	94	50	
1/17/2017	<10	14	14	10			
1/18/2017					68	18	
3/22/2017	12			22			
3/23/2017		28	16		80	32	
5/24/2017	16 (D)	18	12	22	90	32	
10/16/2017	58	36	50	34	110	64	
3/28/2018	18	36			86	56	30
3/29/2018					50		
6/2/2018	6	6		<10	72	22	26
11/8/2018	12	34				170	
11/9/2018				20	38		94
2/11/2019	<10				60	23	
2/12/2019		12		<10			22
4/17/2019	16	27			82	37	22
4/18/2019				39			
9/27/2019	26			<10			25
9/30/2019		<10			55	<10	
4/14/2020	25	31		24	77	30	38
10/30/2020	34	40			88	40	48
11/2/2020				28			
3/17/2021					79	44	
3/26/2021	24	37		38			24

FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

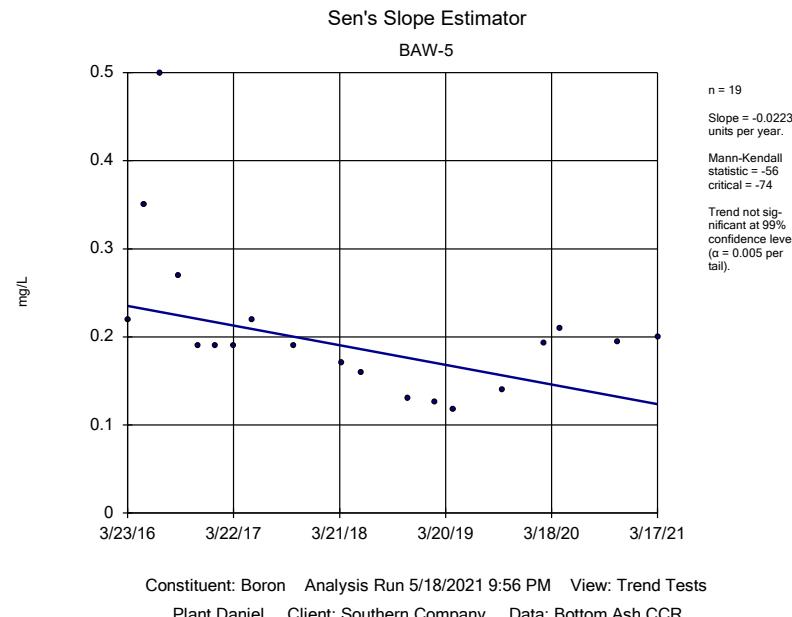
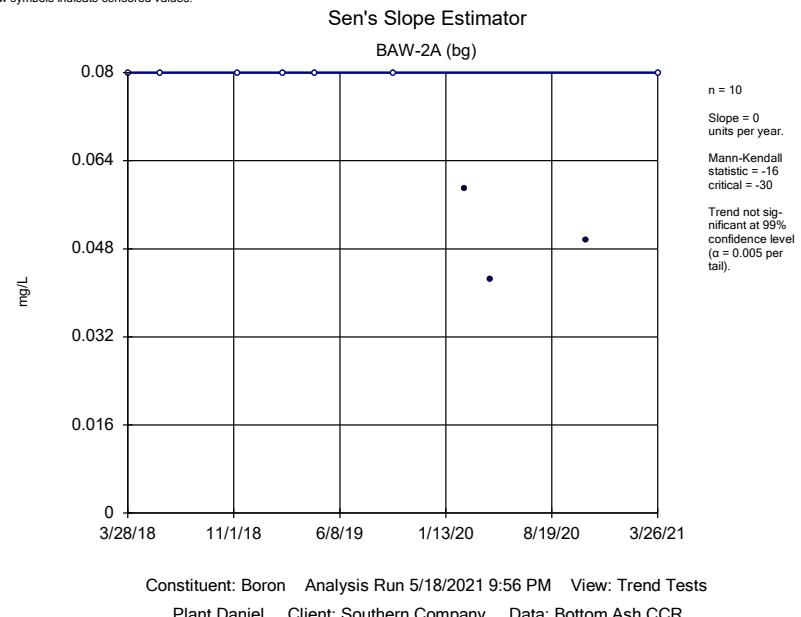
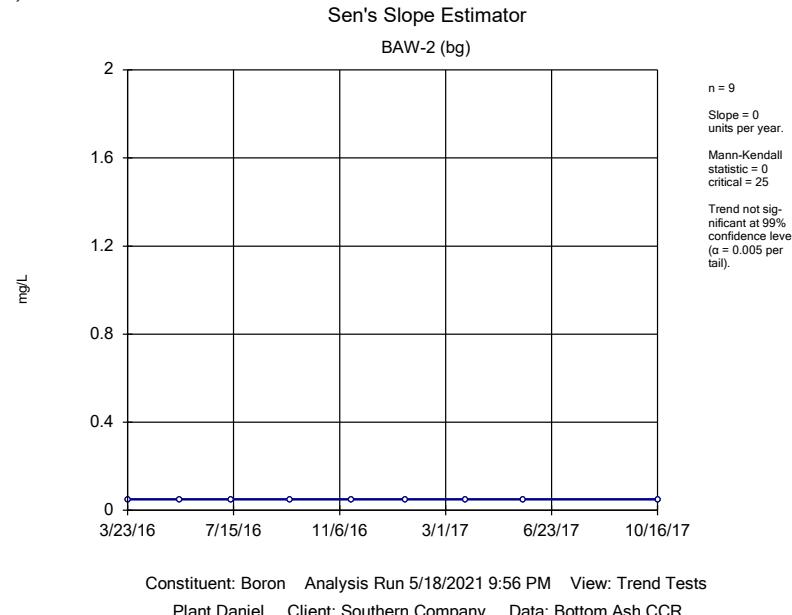
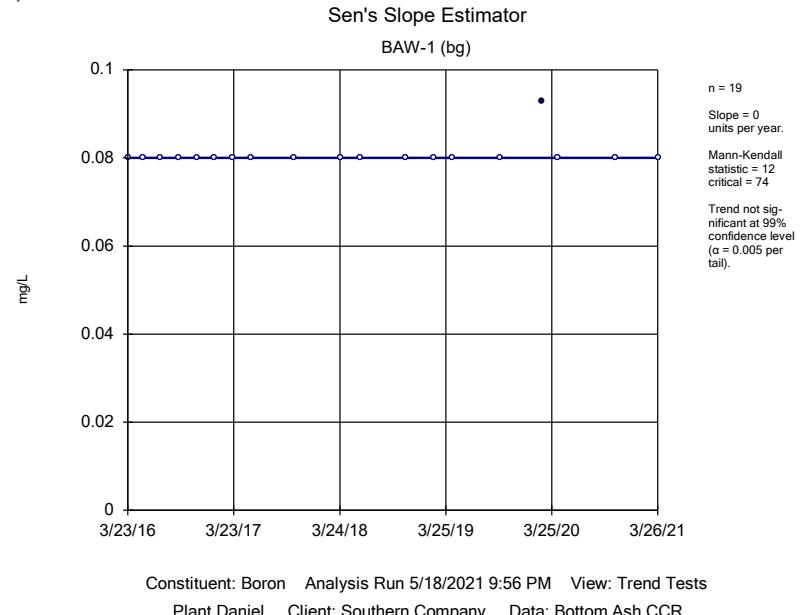
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:58 PM

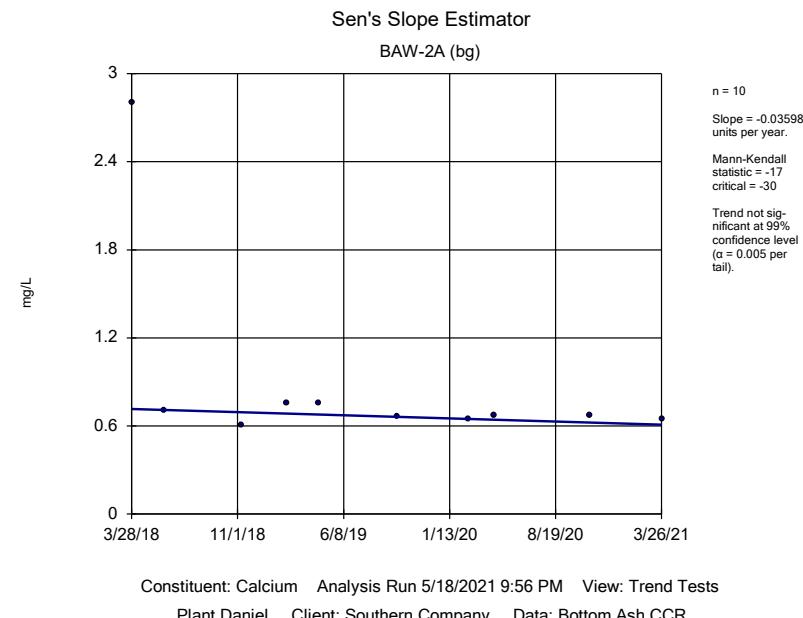
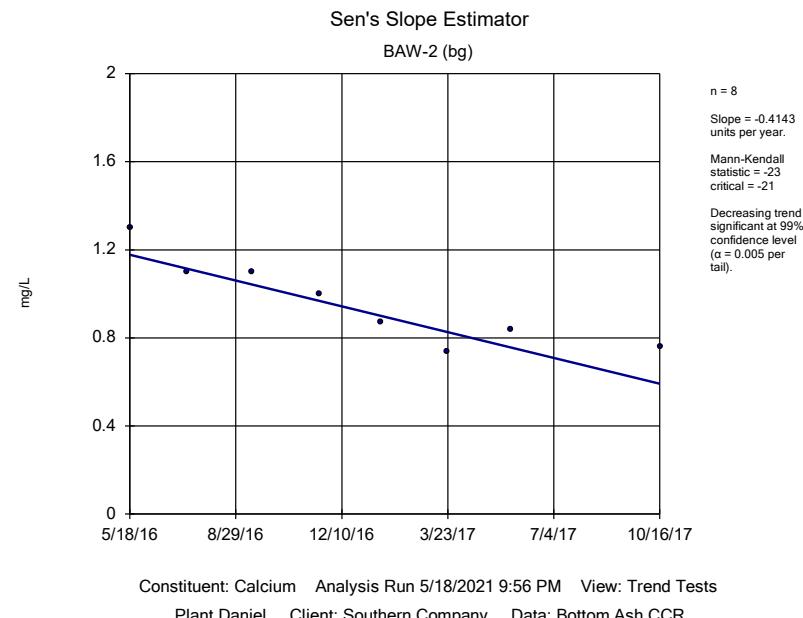
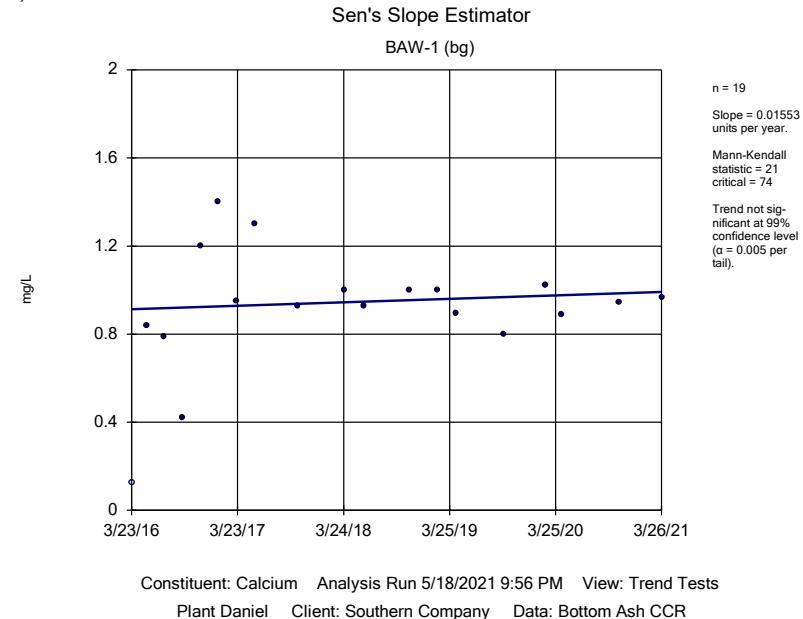
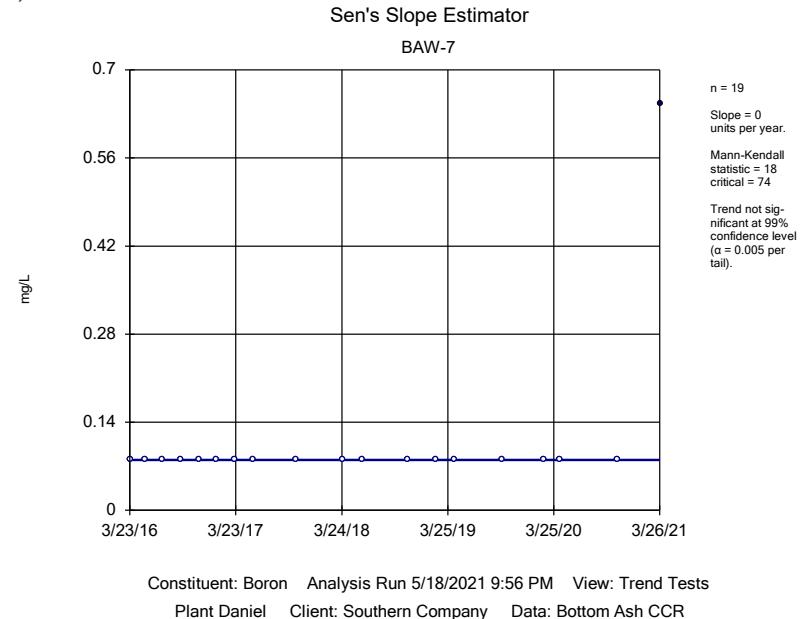
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.9932	-83	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-3	0.379	69	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09765	-97	-68	Yes	18	0	n/a	n/a	0.01	NP

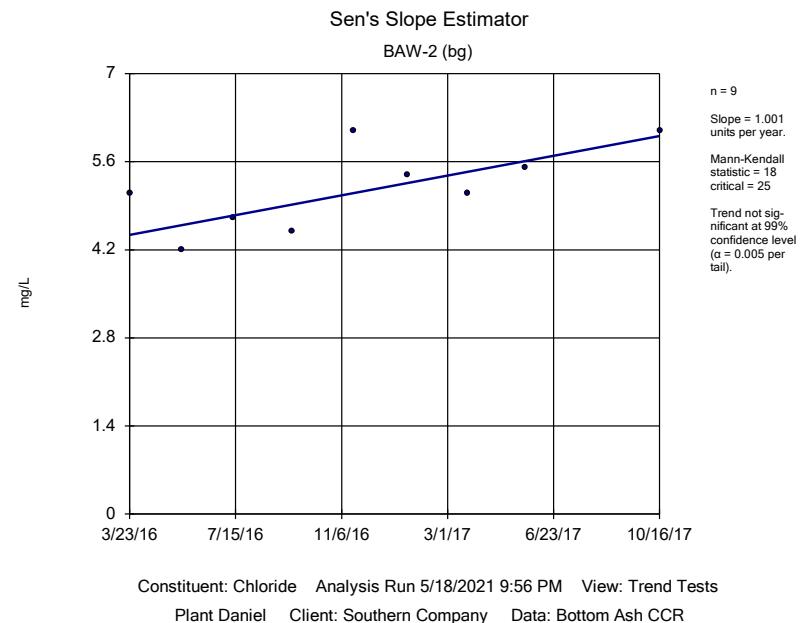
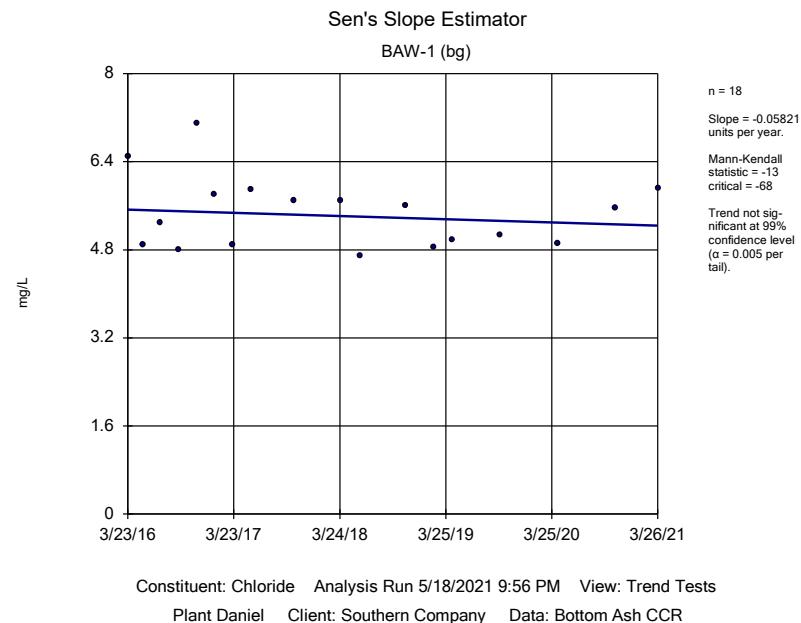
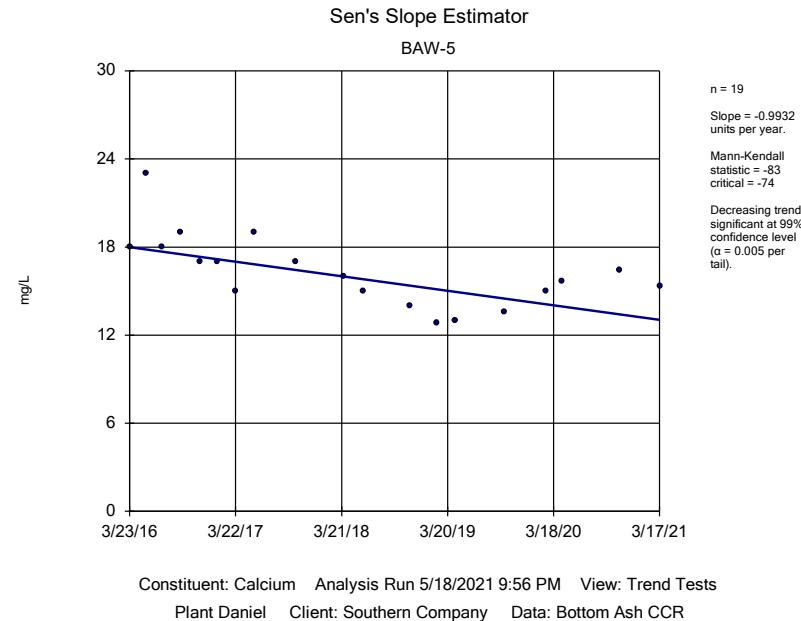
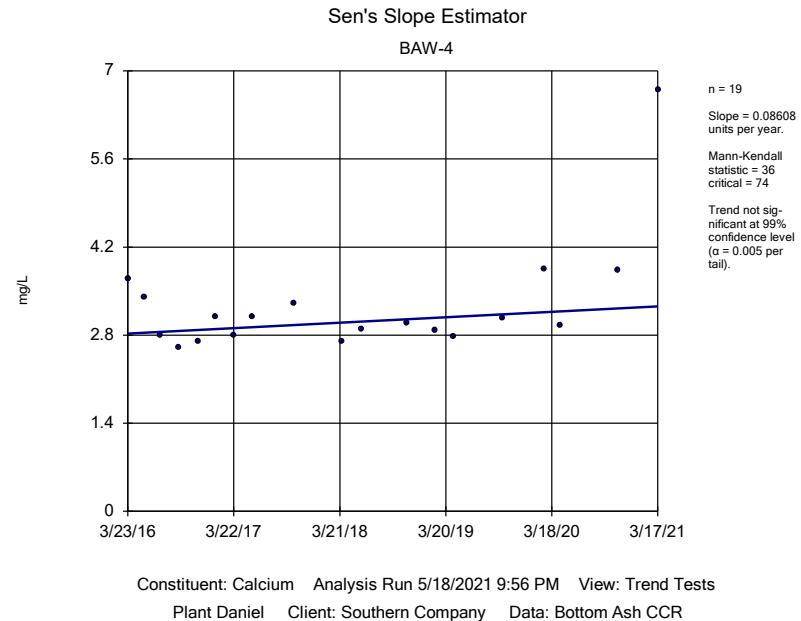
Appendix III Trend Tests - Prediction Limit Exceedances - All Results

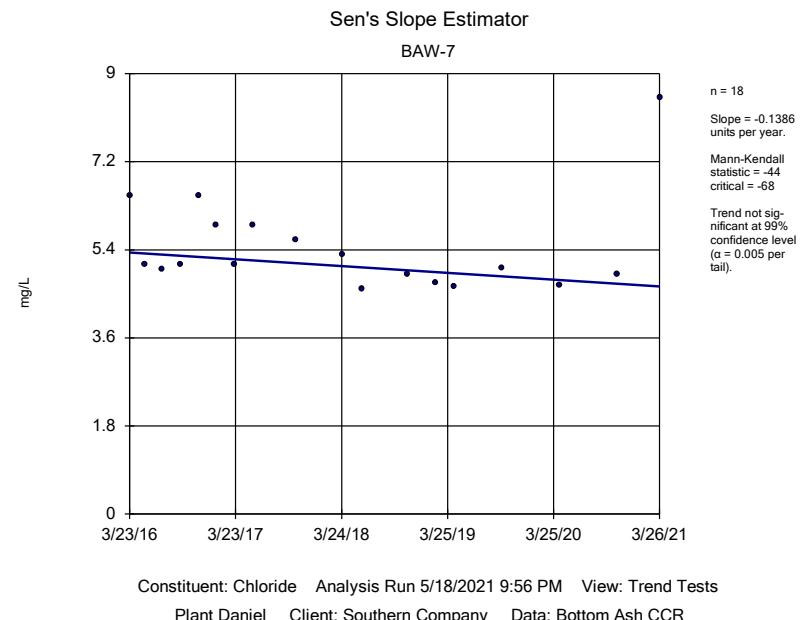
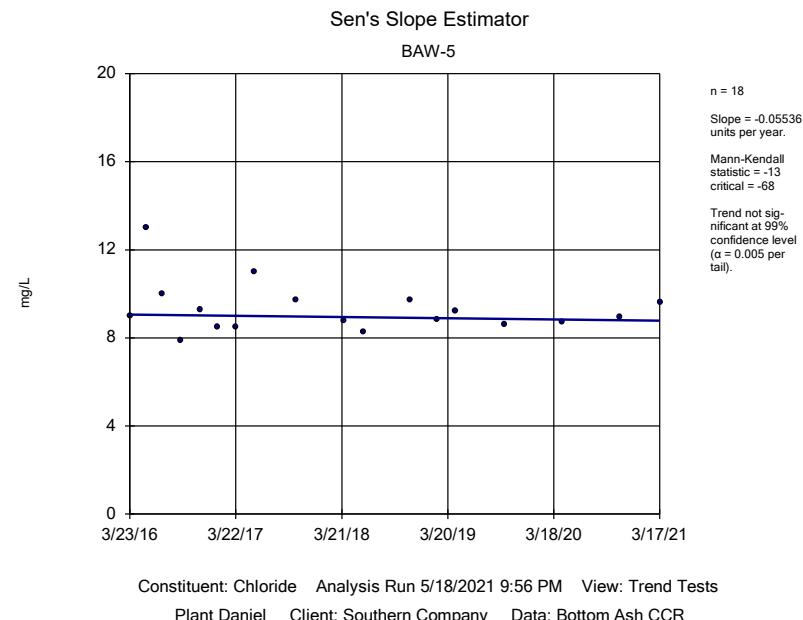
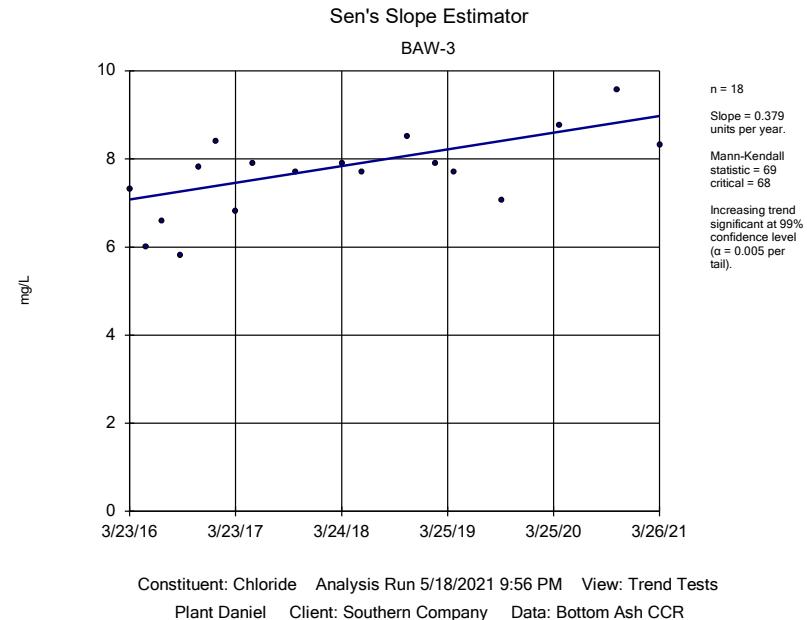
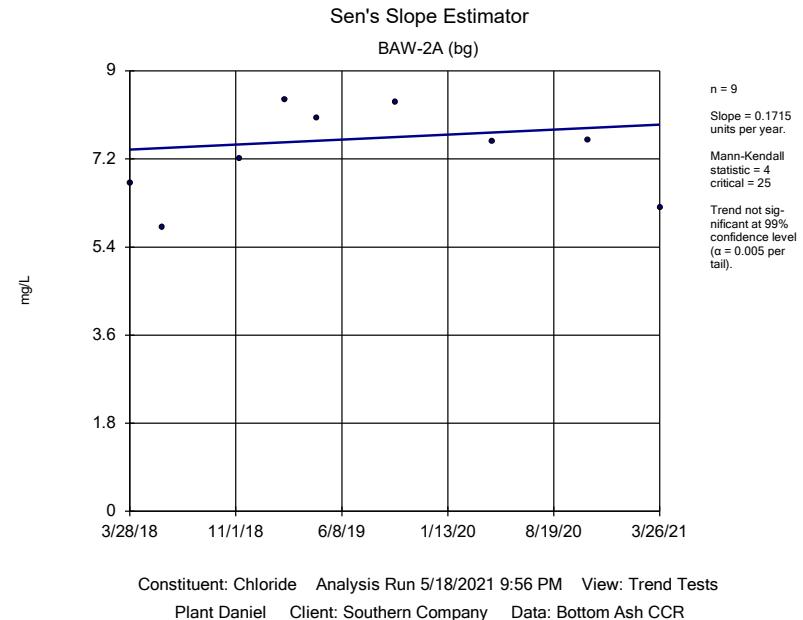
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 9:58 PM

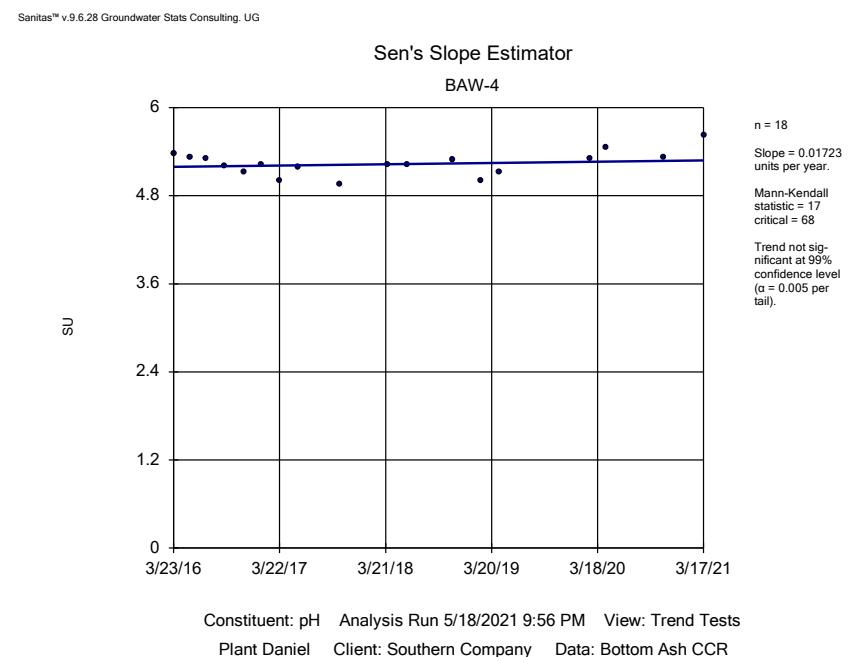
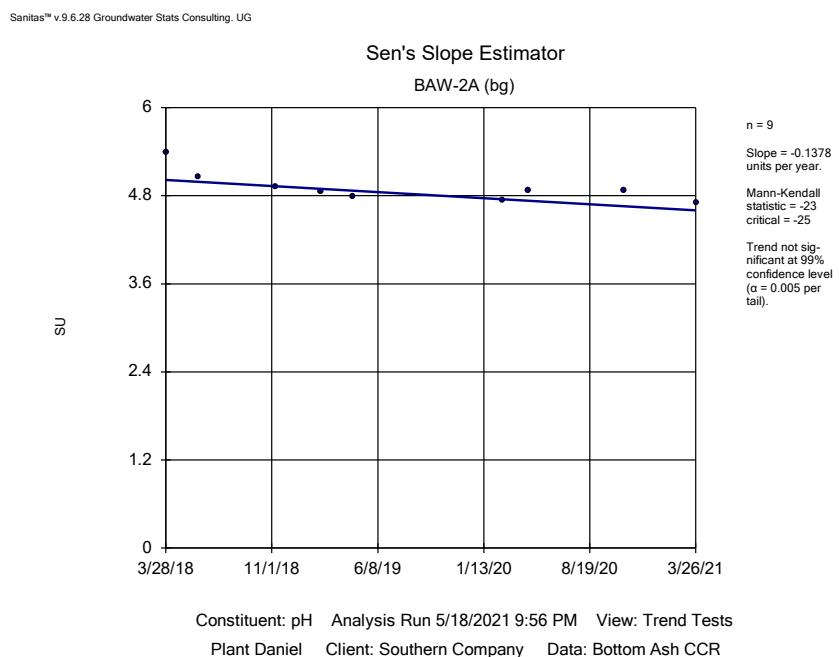
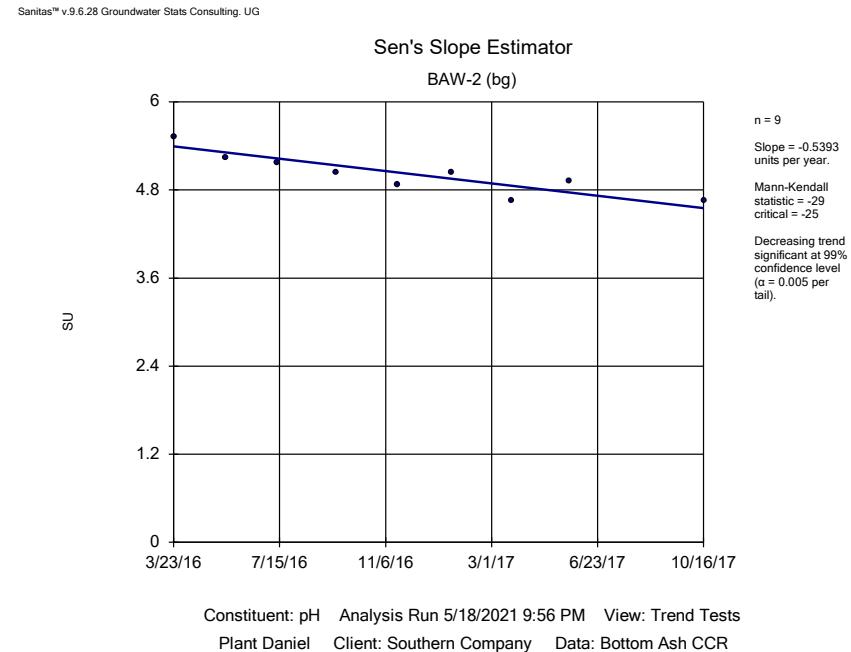
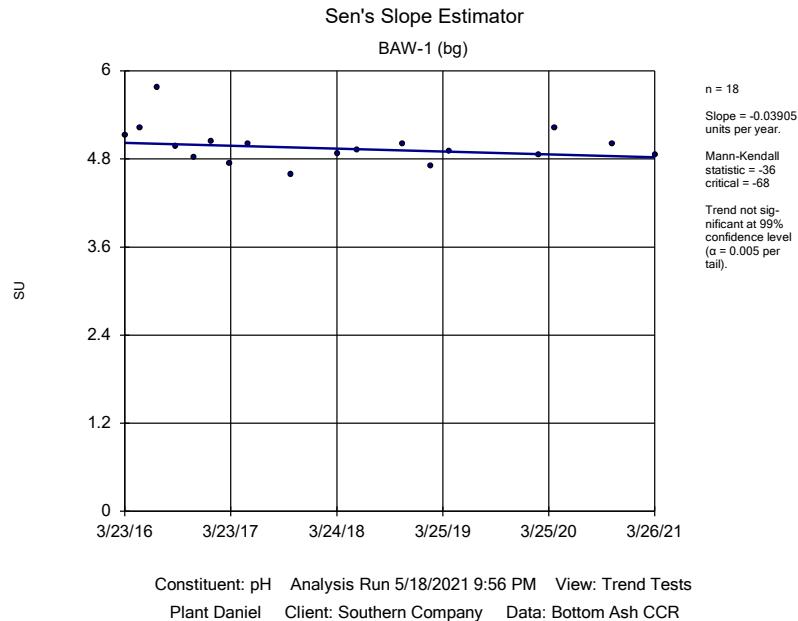
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDS</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	12	74	No	19	94.74	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-16	-30	No	10	70	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	-0.02236	-56	-74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	18	74	No	19	94.74	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.01553	21	74	No	19	5.263	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.03598	-17	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.08608	36	74	No	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.9932	-83	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-1 (bg)	-0.05821	-13	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2 (bg)	1.001	18	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-2A (bg)	0.1715	4	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-3	0.379	69	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-5	-0.05536	-13	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BAW-7	-0.1386	-44	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.03905	-36	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.1378	-23	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.01723	17	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09765	-97	-68	Yes	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	0.2556	9	68	No	18	11.11	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	-0.3342	-1	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-5.028	-59	-68	No	18	0	n/a	n/a	0.01	NP

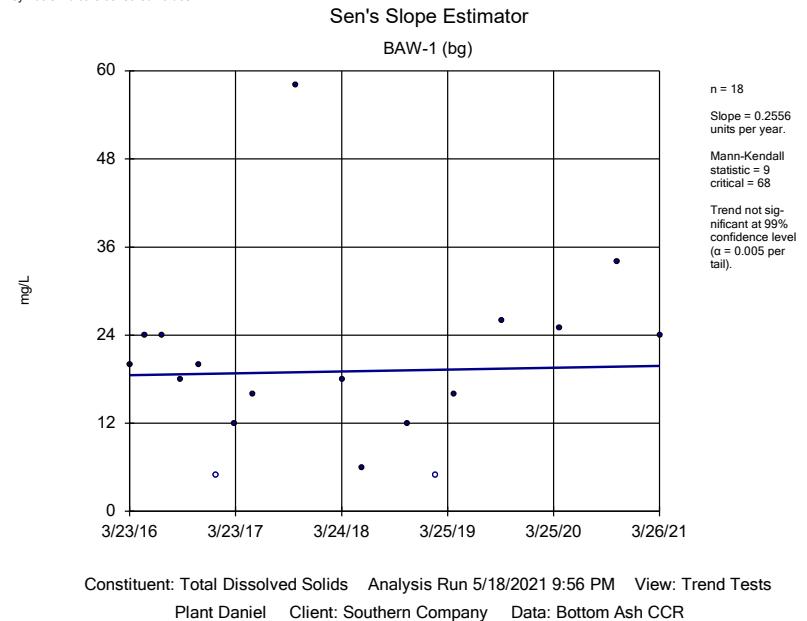
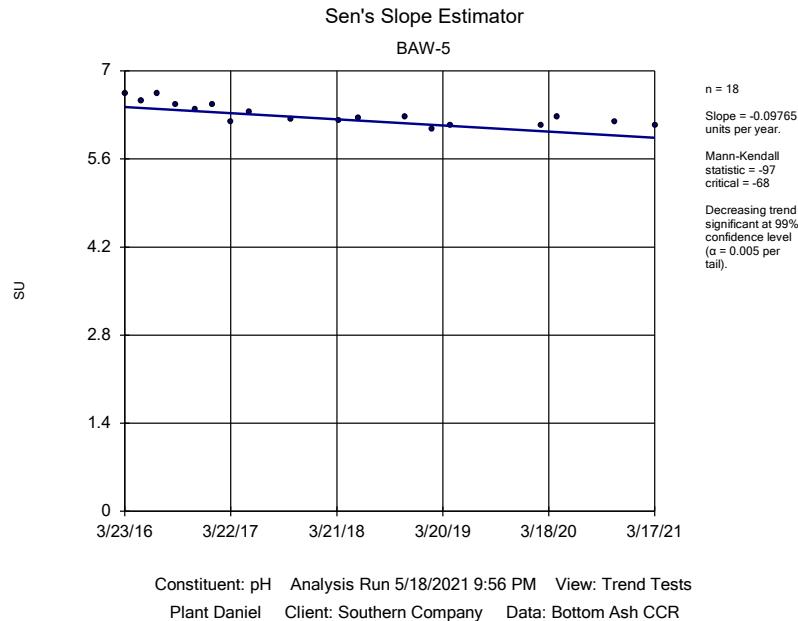


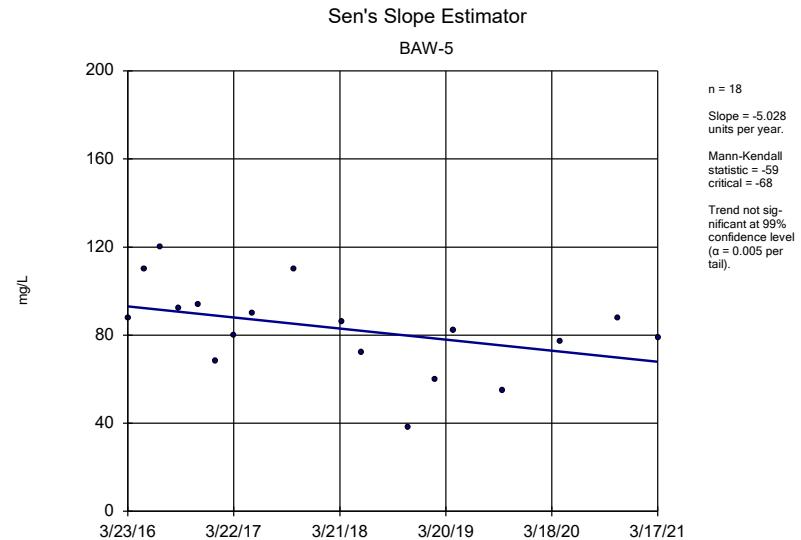












Constituent: Total Dissolved Solids Analysis Run 5/18/2021 9:56 PM View: Trend Tests

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

FIGURE F.

Upper Tolerance Limits Summary Table

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 10:02 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</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)	0.002	n/a	n/a	30	n/a	n/a	96.67	n/a	n/a	0.2146	NP Inter(nds)
Arsenic (mg/L)	0.001	n/a	n/a	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(nds)
Barium (mg/L)	0.04088	n/a	n/a	36	0.001021	0.0003015	0	None	x^2	0.05	Inter
Beryllium (mg/L)	0.001	n/a	n/a	32	n/a	n/a	96.88	n/a	n/a	0.1937	NP Inter(nds)
Cadmium (mg/L)	0.001	n/a	n/a	36	n/a	n/a	97.22	n/a	n/a	0.1578	NP Inter(nds)
Chromium (mg/L)	0.00286	n/a	n/a	34	n/a	n/a	88.24	n/a	n/a	0.1748	NP Inter(nds)
Cobalt (mg/L)	0.001289	n/a	n/a	36	0.0008669	0.0001955	5.556	None	No	0.05	Inter
Combined Radium 226 + 228 (pCi/L)	2.5	n/a	n/a	36	n/a	n/a	5.556	n/a	n/a	0.1578	NP Inter(normality)
Fluoride (mg/L)	0.1	n/a	n/a	38	n/a	n/a	92.11	n/a	n/a	0.1424	NP Inter(nds)
Lead (mg/L)	0.001	n/a	n/a	34	n/a	n/a	100	n/a	n/a	0.1748	NP Inter(nds)
Lithium (mg/L)	0.00505	n/a	n/a	35	n/a	n/a	71.43	n/a	n/a	0.1661	NP Inter(nds)
Mercury (mg/L)	0.0002	n/a	n/a	28	n/a	n/a	92.86	n/a	n/a	0.2378	NP Inter(nds)
Molybdenum (mg/L)	0.005	n/a	n/a	32	n/a	n/a	87.5	n/a	n/a	0.1937	NP Inter(nds)
Selenium (mg/L)	0.005	n/a	n/a	32	n/a	n/a	81.25	n/a	n/a	0.1937	NP Inter(nds)
Thallium (mg/L)	0.001	n/a	n/a	32	n/a	n/a	96.88	n/a	n/a	0.1937	NP Inter(nds)

FIGURE G.

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.041	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		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0013	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

FIGURE H.

Confidence Intervals - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 10:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.1956	0.1673	0.04	Yes	18	0.1814	0.02341	0	None	No	0.01	Param.

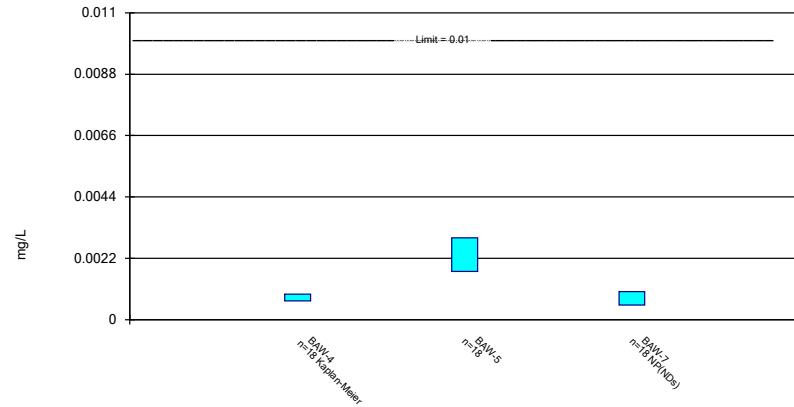
Confidence Intervals - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 5/18/2021, 10:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.0009094	0.000669	0.01	No	18	0.0008361	0.0002016	22.22	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BAW-5	0.002932	0.001724	0.01	No	18	0.002328	0.0009982	0	None	No	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No	18	0.0009456	0.0001585	88.89	None	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.02917	0.02084	2	No	18	0.02501	0.006879	0	None	No	0.01	Param.
Barium (mg/L)	BAW-4	0.011	0.0087	2	No	18	0.01033	0.003228	0	None	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.04532	0.04051	2	No	18	0.04303	0.004139	0	None	In(x)	0.01	Param.
Barium (mg/L)	BAW-7	0.0124	0.011	2	No	18	0.01209	0.001831	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	BAW-3	0.0009308	0.0006835	0.005	No	18	0.0008072	0.0002043	5.556	None	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No	18	0.0009531	0.0001992	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No	17	0.002038	0.0002619	88.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No	17	0.001888	0.0002619	82.35	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No	17	0.002153	0.0007666	82.35	None	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No	17	0.002004	0.000014559	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.006224	0.005165	0.006	No	18	0.005694	0.0008753	0	None	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.0012	0.00094	0.006	No	18	0.00113	0.0002991	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	BAW-5	0.0005	0.00042	0.006	No	18	0.0004956	0.00001886	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.0009298	0.0007466	0.006	No	18	0.0008382	0.0001514	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.78	0.0761	5	No	18	0.5872	0.7591	11.11	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.53	0.0408	5	No	18	0.623	0.88	16.67	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.6663	0.265	5	No	17	0.5542	0.5429	5.882	None	In(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	0.4702	0.1495	5	No	18	0.7112	0.851	16.67	Kaplan-Meier	$x^{(1/3)}$	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No	19	0.09653	0.01514	94.74	None	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.1	0.04	4	No	19	0.06105	0.02781	31.58	None	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.06534	0.04998	4	No	19	0.05862	0.0142	5.263	None	In(x)	0.01	Param.
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No	19	0.09692	0.01342	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.00015	0.015	No	17	0.0006134	0.0003898	47.06	None	No	0.01	NP (normality)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No	17	0.0008326	0.0003166	76.47	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No	17	0.0009501	0.0002057	94.12	None	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No	17	0.0009488	0.0002112	94.12	None	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.00687	0.0024	0.04	No	18	0.004474	0.001345	72.22	None	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-4	0.027	0.022	0.04	No	18	0.02528	0.005394	0	None	No	0.01	NP (normality)
Lithium (mg/L)	BAW-5	0.1956	0.1673	0.04	Yes	18	0.1814	0.02341	0	None	No	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0029	0.04	No	18	0.004324	0.001026	66.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No	14	0.0002079	0.00009016	78.57	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No	14	0.0001859	0.00003748	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No	14	0.000191	0.00003367	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000071	0.002	No	14	0.0001933	0.00003641	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.005	0.0032	0.1	No	16	0.004613	0.001157	87.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-5	0.003147	0.0009944	0.1	No	16	0.003366	0.002163	37.5	Kaplan-Meier	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No	16	0.004925	0.0003	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00033	0.05	No	16	0.003024	0.00232	56.25	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No	16	0.004708	0.001167	93.75	None	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00031	0.05	No	16	0.003643	0.00212	68.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-3	0.001	0.000158	0.002	No	16	0.0007884	0.0003806	75	None	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

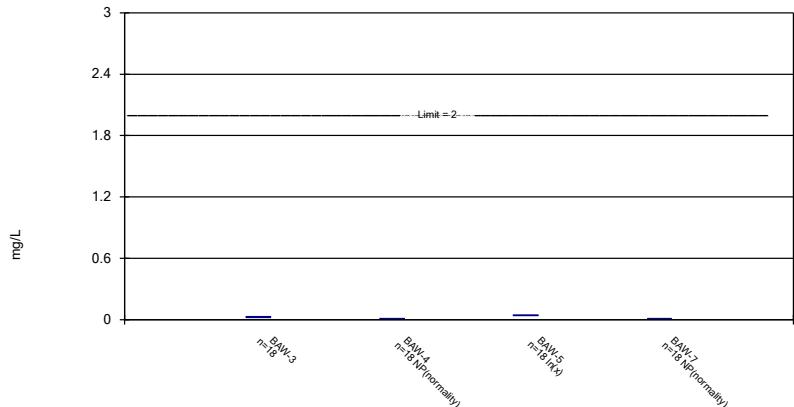
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

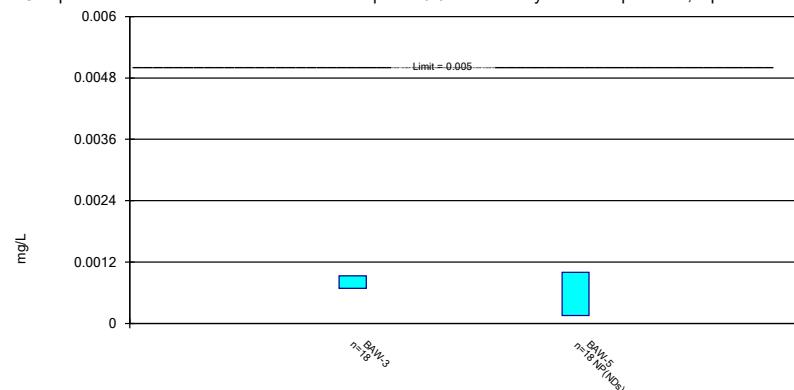
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

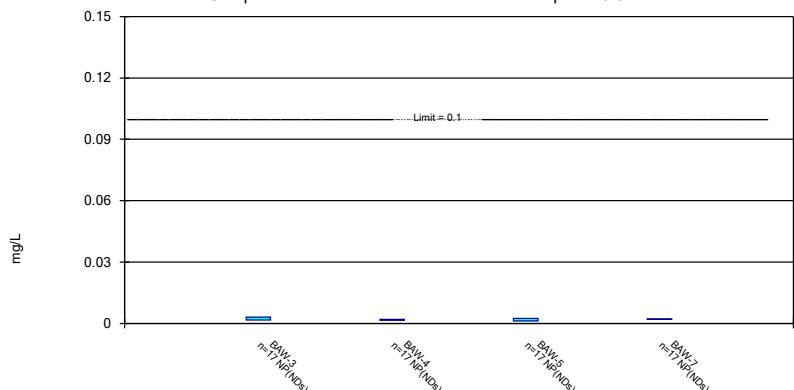
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

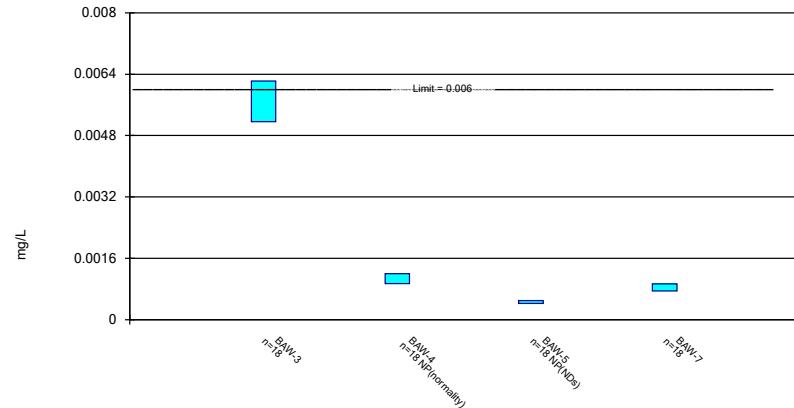
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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.

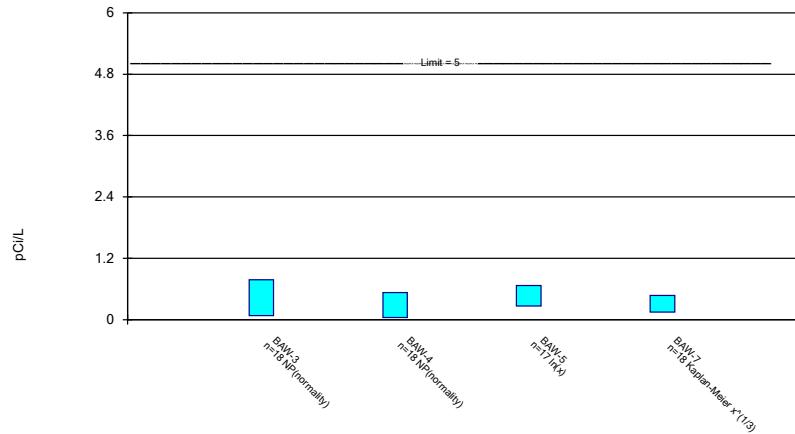


Constituent: Cobalt Analysis Run 5/18/2021 10:12 PM View: Appendix IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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.

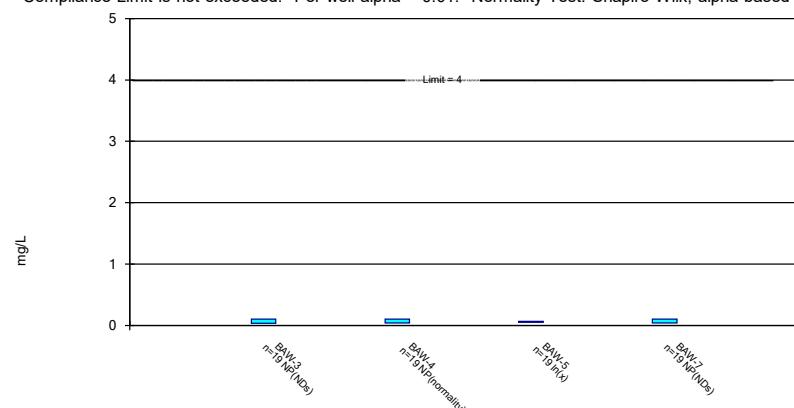


Constituent: Combined Radium 226 + 228 Analysis Run 5/18/2021 10:12 PM View: Appendix IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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.

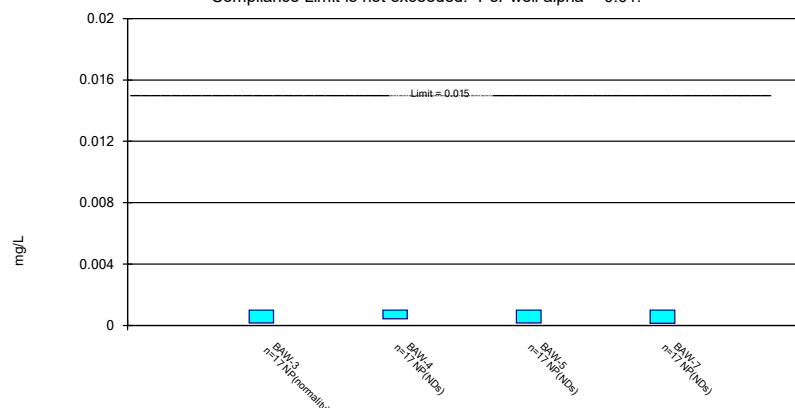


Constituent: Fluoride Analysis Run 5/18/2021 10:12 PM View: Appendix IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

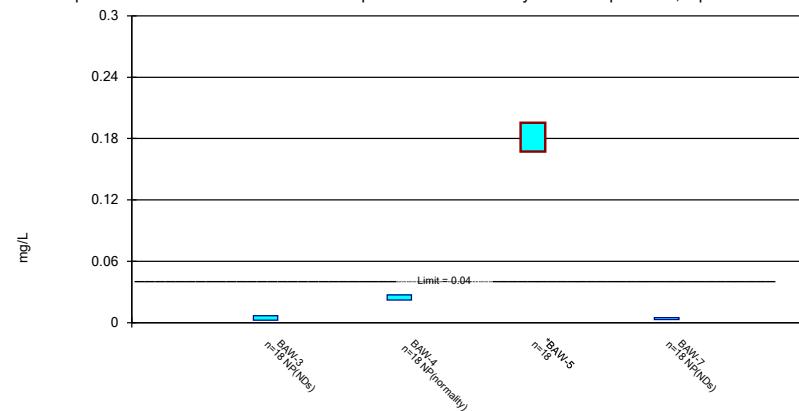


Constituent: Lead Analysis Run 5/18/2021 10:12 PM View: Appendix IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

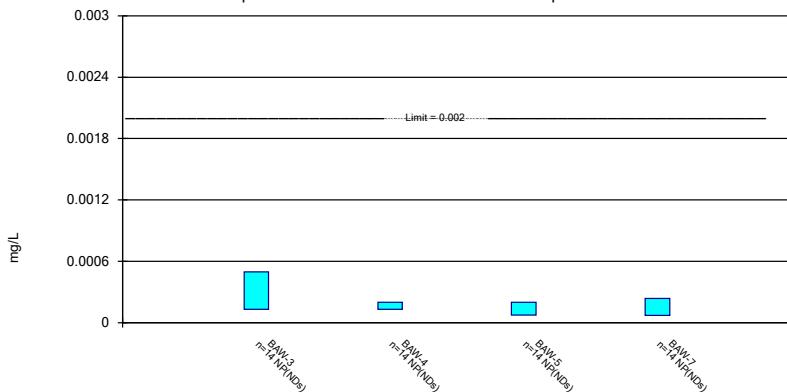
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

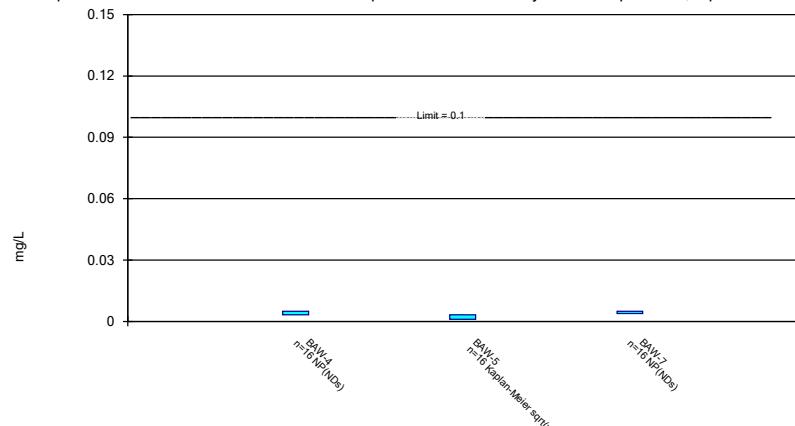
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

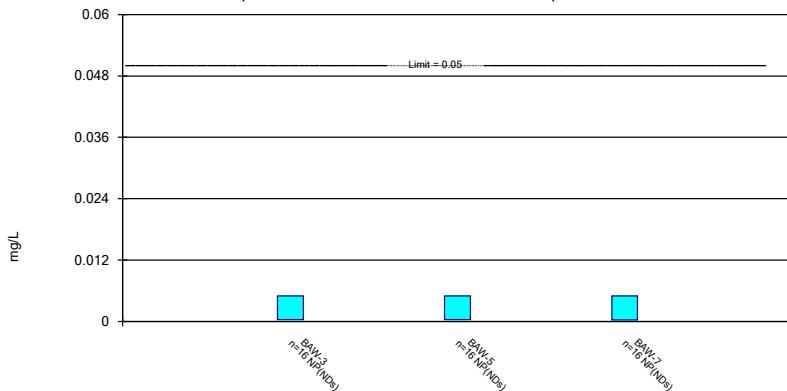
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

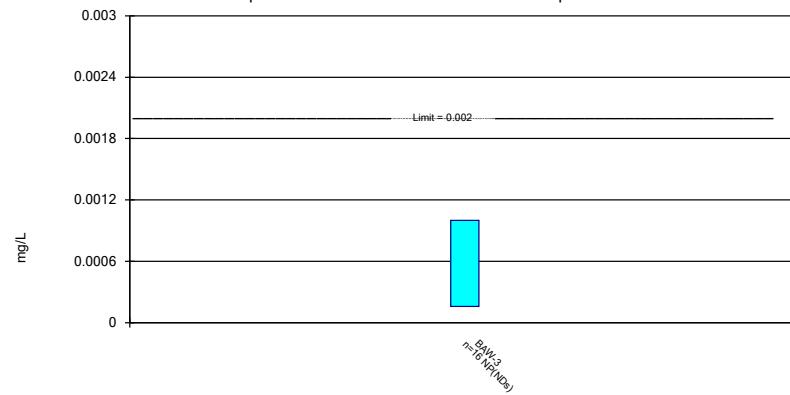
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 5/18/2021 10:12 PM View: Appendix IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 5/18/2021 10:12 PM View: Appendix IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

2nd

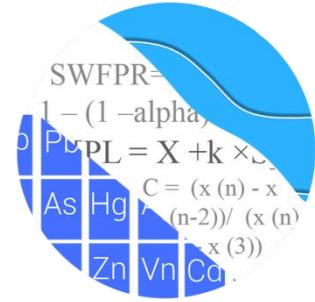
Semi-Annual

Monitoring Event

GROUNDWATER STATS
CONSULTING

December 15, 2021

Southern Company Services
Attn: Mr. Trey Singleton
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Daniel Bottom Ash Pond
2021 Annual Statistical Analysis – October 2021 Sample Event

Dear Mr. Singleton,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2021 Groundwater Detection and Assessment Monitoring Annual report for Mississippi Power Company's Plant Daniel Bottom Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel Bottom Ash Pond for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BAW-1 and BAW-2A
- **Downgradient wells:** BAW-3, BAW-4, BAW-5, and BAW-7

Well BAW-2 was last sampled in October 2017 and has since been abandoned; however, data for this well are included for historical concentrations. Well BAW-2A was first sampled in March 2018 and has since been sampled to supplement existing upgradient data for BAW-2.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of Appendix IV downgradient well/constituent pairs containing 100% non-detects follow this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case.

Time series plots for Appendix III and IV parameters are provided for all wells and are used to evaluate concentrations over time (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph. A summary of these values follows this letter (Figure C). 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.

During the previous screening, 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 screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods:

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric prediction 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 prediction limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as "<" the original reporting limit.

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 following each sampling event after careful screening for any new outliers. 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.

Summary of Background Screening Conducted in October 2017

Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. No suspected outliers were observed in any of the proposed background data at upgradient wells. When any values are identified as outliers, they are plotted in a lighter font on the time series graph.

Seasonality

No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Test Evaluation

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a couple statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations, therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA showed no variation for calcium, chloride, pH, sulfate, and TDS, making these parameters eligible for interwell methods. Boron and fluoride contained 100% non-detects; therefore, while they could not be tested with the ANOVA, it is assumed no variation is present, making these parameters also eligible for interwell methods. A summary table of the ANOVA results was included with the October 2017 screening.

Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for outliers at upgradient wells for all constituents. An updated summary of Tukey's test results and flagged outliers was included with the 2019 Background Update report.

The Sen's Slope/Mann-Kendall trend test was used to determine whether concentrations are statistically increasing, decreasing or stable at upgradient wells. No statistically significant increasing or decreasing trends were noted with the exception of decreasing trends for calcium and pH in well BAW-2. The magnitude of these trends, however, was low relative to the average concentrations in these wells. Therefore, no adjustments were required at that time and these results were included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – October 2021

Prior to updating interwell prediction limits, data through the October 2021 sample event at upgradient wells were re-evaluated for outliers using visual screening. No new outliers were suspected or flagged during this analysis. Tukey's outlier test had previously identified an outlier for calcium at well BAW-2 during the November 2019 statistical analysis; therefore, this value remains flagged. A summary of flagged data follows this

report (Figure C). Additionally, any flagged values are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters using pooled historical upgradient well data through October 2021 (Figure D). The reported measurements at downgradient wells for the October 2021 sample event were compared to the prediction limits to determine whether initial exceedances are present. Note that the prediction limit for chloride increased slightly during this event compared to the March 2021 sample event due to the most recent reported sample in upgradient well BAW-2A.

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 the resample confirms the initial exceedance, a statistically significant increase (SSI) 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 further action is necessary. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- BAW-4: Boron, Calcium, pH, and TDS
- BAW-5: Boron, Calcium, pH, Sulfate, and TDS
- BAW-7: Boron

Trend Test Evaluation

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. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- None

Decreasing:

- BAW-1 (upgradient): Sulfate
- BAW-2 (upgradient): Calcium and pH
- BAW-5: pH

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 groundwater quality. Site-specific background limits are determined using upper tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Evaluation of Appendix IV Parameters – October 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 have 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged during this analysis. Tukey's outlier test had previously identified an outlier for lithium at well BAW-1 during the November 2019 statistical analysis; therefore, this value remains flagged. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Parametric upper tolerance limits were used to calculate background limits from pooled upgradient well data through October 2021 for Appendix IV parameters with a target of 95% confidence and 95% coverage to determine background limits (Figure F). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

Groundwater Protection Standards

The interwell upper tolerance limits were compared to the Maximum Contaminant Levels (MCLs), CCR Rule-Specified levels, and background limits in the Groundwater Protection Standard (GWPS) table following this letter to determine the highest limit for use as the GWPS in the Confidence Interval comparisons (Figure G).

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using all data through October 2021 for each of the Appendix IV parameters and compared to the GWPS, i.e. the highest limit of the MCL, CCR Rule-Specified level, or background limit as discussed above (Figure H). Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Complete graphical results of the confidence interval follow this letter. An exceedance was identified for the following well/constituent pair:

- BAW-5: Lithium

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for the Daniel Bottom Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Tristan Clark

Tristan Clark

Groundwater Analyst

Collins

Andrew Collins
Project Manager

Appendix III Interwell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N %NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>	
Boron (mg/L)	BAW-4	0.0928	n/a	10/5/2021	0.168	Yes	40	90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2021	0.272	Yes	40	90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	10/5/2021	0.281	Yes	40	90	n/a	0.001141	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	10/5/2021	8.57	Yes	39	5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	10/6/2021	22.8	Yes	39	5.128	n/a	0.001206	NP Inter (normality) 1 of 2
pH (SU)	BAW-4	5.414	4.519	10/5/2021	5.72	Yes	38	0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.414	4.519	10/6/2021	6.03	Yes	38	0	No	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2021	14.5	Yes	38	50	n/a	0.001271	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	59.67	n/a	10/5/2021	75	Yes	38	5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	59.67	n/a	10/6/2021	114	Yes	38	5.263	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N %NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	10/6/2021	0.08ND	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-4	0.0928	n/a	10/5/2021	0.168	Yes	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2021	0.272	Yes	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	10/5/2021	0.281	Yes	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-3	2.8	n/a	10/6/2021	0.532	No	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	10/5/2021	8.57	Yes	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	10/6/2021	22.8	Yes	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-7	2.8	n/a	10/5/2021	0.829	No	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	16.4	n/a	10/6/2021	6.8	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-4	16.4	n/a	10/5/2021	14.3	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-5	16.4	n/a	10/6/2021	5.44	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-7	16.4	n/a	10/5/2021	10.3	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BAW-3	0.1	n/a	10/6/2021	0.1ND	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-4	0.1	n/a	10/5/2021	0.0505J	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	10/6/2021	0.0725J	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-7	0.1	n/a	10/5/2021	0.1ND	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
pH (SU)	BAW-3	5.414	4.519	10/6/2021	4.63	No	38 0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-4	5.414	4.519	10/5/2021	5.72	Yes	38 0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.414	4.519	10/6/2021	6.03	Yes	38 0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-7	5.414	4.519	10/5/2021	4.84	No	38 0	No	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5.37	n/a	10/6/2021	5.07	No	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-4	5.37	n/a	10/5/2021	5.02	No	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2021	14.5	Yes	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-7	5.37	n/a	10/5/2021	2.55	No	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-3	59.67	n/a	10/6/2021	30	No	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	59.67	n/a	10/5/2021	75	Yes	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	59.67	n/a	10/6/2021	114	Yes	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-7	59.67	n/a	10/5/2021	45	No	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 4:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09326	-115	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.7222	-88	-74	Yes	19	57.89	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 4:00 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	11	81	No	20	95	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-13	-34	No	11	72.73	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-4	0.007548	54	81	No	20	45	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	-0.01793	-41	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	35	81	No	20	90	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.01739	26	81	No	20	5	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.05714	-27	-34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.1265	55	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.7607	-66	-81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.02604	-32	-74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.1017	-28	-30	No	10	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.03323	35	74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09326	-115	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.7222	-88	-74	Yes	19	57.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2A (bg)	0.3537	11	30	No	10	10	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-5	-0.0955	-17	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	0.6772	22	74	No	19	10.53	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	3.904	6	30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-4	0	0	74	No	19	5.263	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-4.183	-43	-74	No	19	0	n/a	n/a	0.01	NP

Upper Tolerance Limit

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:45 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg_N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.002	n/a	n/a	n/a	32	96.88	n/a	0.1937	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.001	n/a	n/a	n/a	38	100	n/a	0.1424	NP Inter(NDs)
Barium (mg/L)	n/a	0.04182	n/a	n/a	n/a	38	2.632	x^2	0.05	Inter
Beryllium (mg/L)	n/a	0.001	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	38	97.37	n/a	0.1424	NP Inter(NDs)
Chromium (mg/L)	n/a	0.00286	n/a	n/a	n/a	36	88.89	n/a	0.1578	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.00143	n/a	n/a	n/a	38	7.895	n/a	0.1424	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	2.5	n/a	n/a	n/a	38	5.263	n/a	0.1424	NP Inter(normality)
Fluoride (mg/L)	n/a	0.1	n/a	n/a	n/a	40	90	n/a	0.1285	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	36	100	n/a	0.1578	NP Inter(NDs)
Lithium (mg/L)	n/a	0.00505	n/a	n/a	n/a	37	72.97	n/a	0.1499	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	30	93.33	n/a	0.2146	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.005	n/a	n/a	n/a	34	88.24	n/a	0.1748	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	34	82.35	n/a	0.1748	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.042	2
Beryllium, Total (mg/L)	0.004		0.001	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0014	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

Confidence Interval - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 12:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.1944	0.1598	0.04	Yes	19	0	No	0.01	Param.

Confidence Interval - All Results

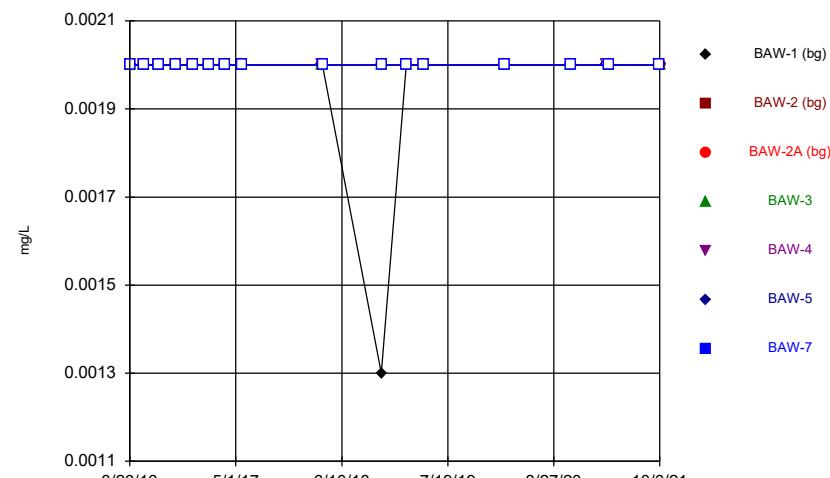
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 12:18 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.001	0.00068	0.01	No	19	21.05	No	0.01	NP (normality)
Arsenic (mg/L)	BAW-5	0.003304	0.001651	0.01	No	19	0	In(x)	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No	19	89.47	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.02924	0.0213	2	No	19	0	No	0.01	Param.
Barium (mg/L)	BAW-4	0.0116	0.0087	2	No	19	0	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.04586	0.04086	2	No	19	0	No	0.01	Param.
Barium (mg/L)	BAW-7	0.013	0.011	2	No	19	0	No	0.01	NP (normality)
Beryllium (mg/L)	BAW-7	0.001	0.000185	0.004	No	17	94.12	No	0.01	NP (NDs)
Cadmium (mg/L)	BAW-3	0.0009147	0.0006502	0.005	No	19	5.263	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No	19	94.74	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No	18	88.89	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No	18	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No	18	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No	18	94.44	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.00616	0.004983	0.006	No	19	0	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.0012	0.00094	0.006	No	19	0	No	0.01	NP (normality)
Cobalt (mg/L)	BAW-5	0.000802	0.00042	0.006	No	19	89.47	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.0009471	0.000759	0.006	No	19	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.78	0.0761	5	No	19	10.53	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.4225	0.05825	5	No	19	15.79	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.7366	0.2896	5	No	18	5.556	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	0.5004	0.1658	5	No	19	15.79	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No	20	95	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.1	0.04	4	No	20	30	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.06736	0.05127	4	No	20	5	No	0.01	Param.
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No	20	95	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.00015	0.015	No	18	50	No	0.01	NP (normality)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No	18	77.78	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No	18	94.44	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No	18	94.44	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.00687	0.0024	0.04	No	19	73.68	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-4	0.0267	0.0211	0.04	No	19	0	No	0.01	NP (normality)
Lithium (mg/L)	BAW-5	0.1944	0.1598	0.04	Yes	19	0	No	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0029	0.04	No	19	63.16	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No	15	80	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No	15	86.67	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No	15	93.33	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000151	0.002	No	15	80	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.005	0.0032	0.1	No	17	82.35	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-5	0.003674	0.001137	0.1	No	17	35.29	No	0.01	Param.
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No	17	94.12	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00038	0.05	No	17	58.82	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No	17	94.12	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00036	0.05	No	17	70.59	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-3	0.001	0.000276	0.002	No	17	76.47	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-7	0.001	0.000153	0.002	No	17	94.12	No	0.01	NP (NDs)

FIGURE A.

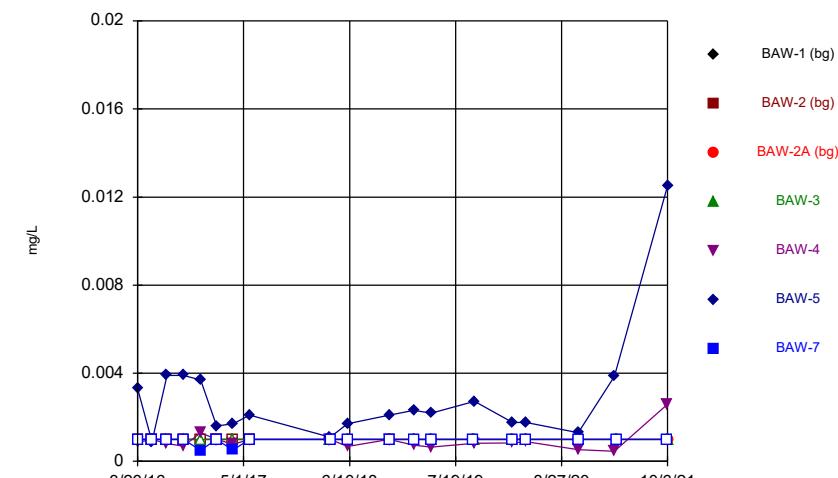
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

Time Series



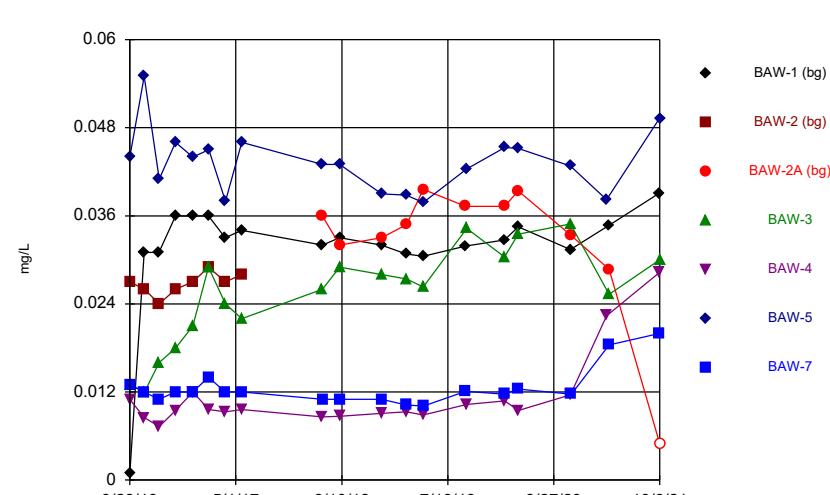
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Hollow symbols indicate censored values.

Time Series



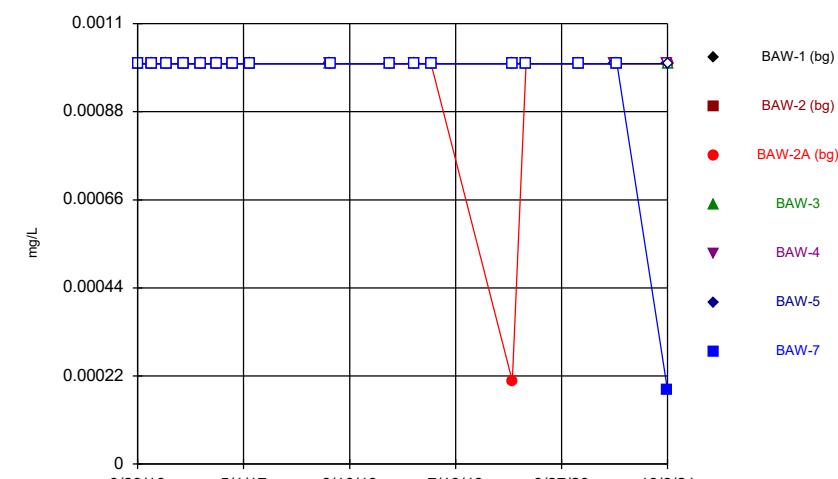
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Hollow symbols indicate censored values.

Time Series



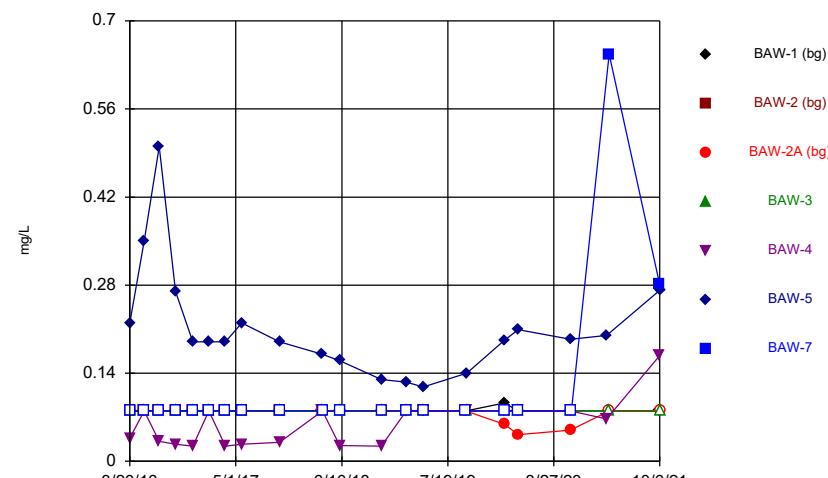
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Time Series



Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
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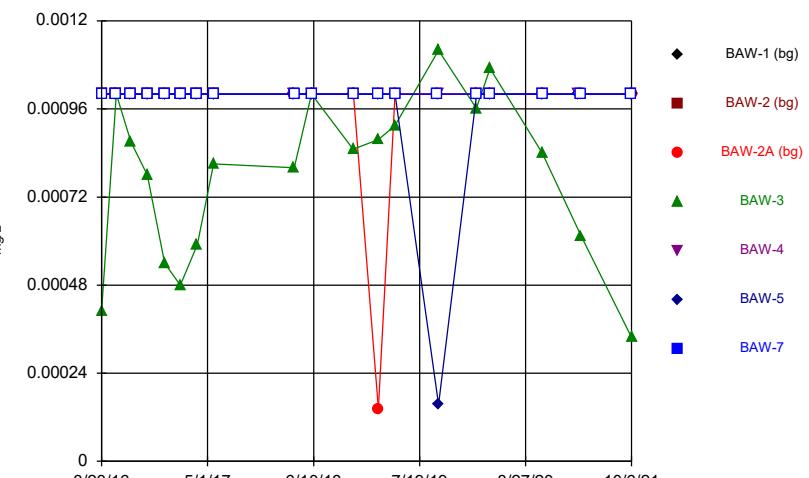
Time Series



Constituent: Boron Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

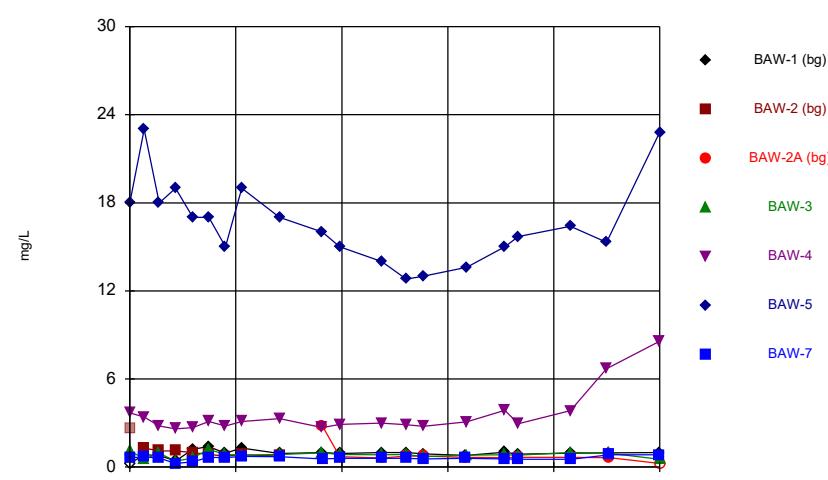
Time Series



Constituent: Cadmium Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

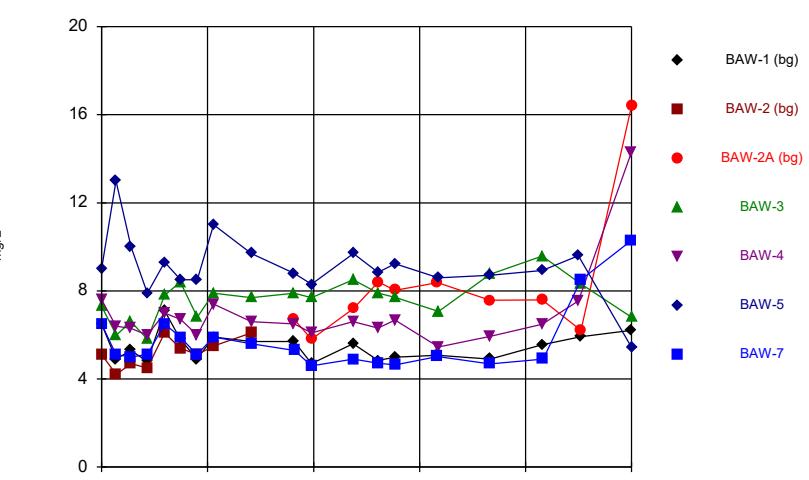
Time Series



Constituent: Calcium Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG

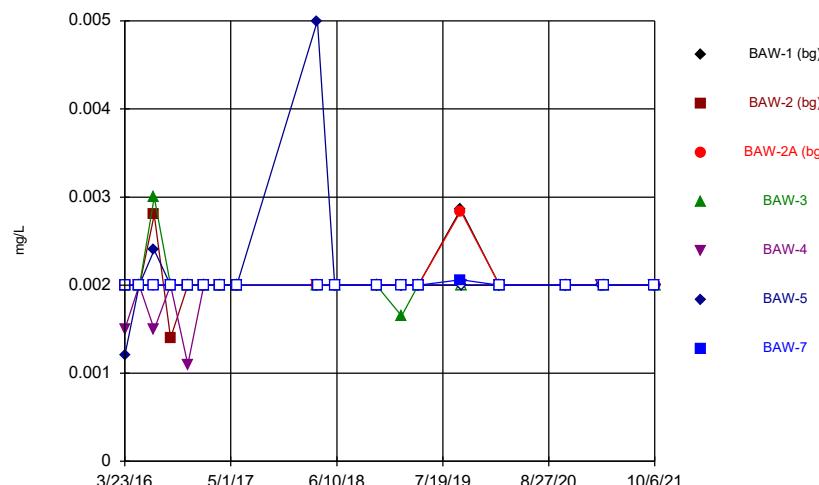
Time Series



Constituent: Chloride Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

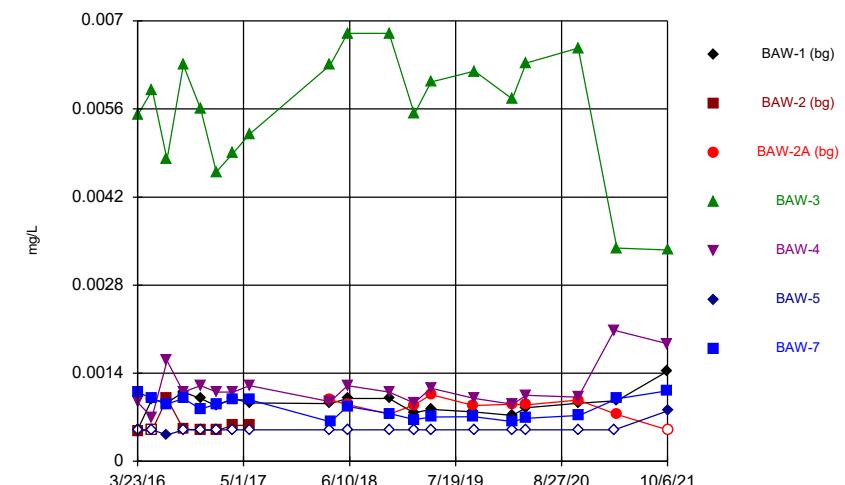
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Hollow symbols indicate censored values.

Time Series



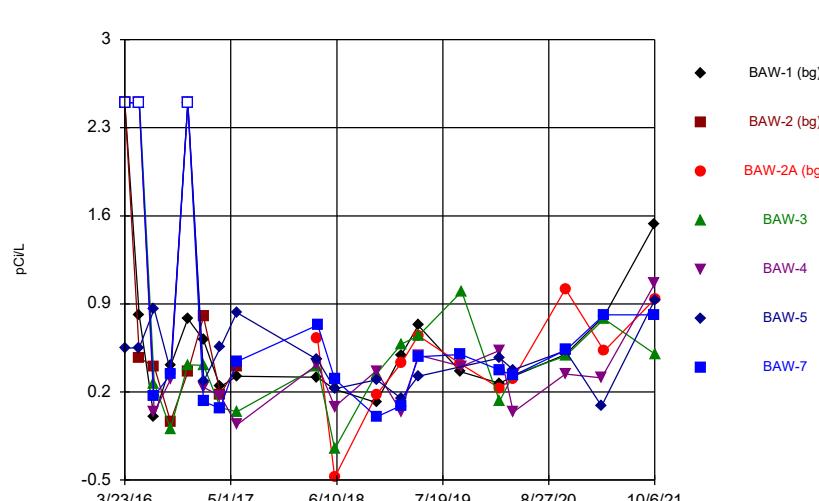
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Hollow symbols indicate censored values.

Time Series



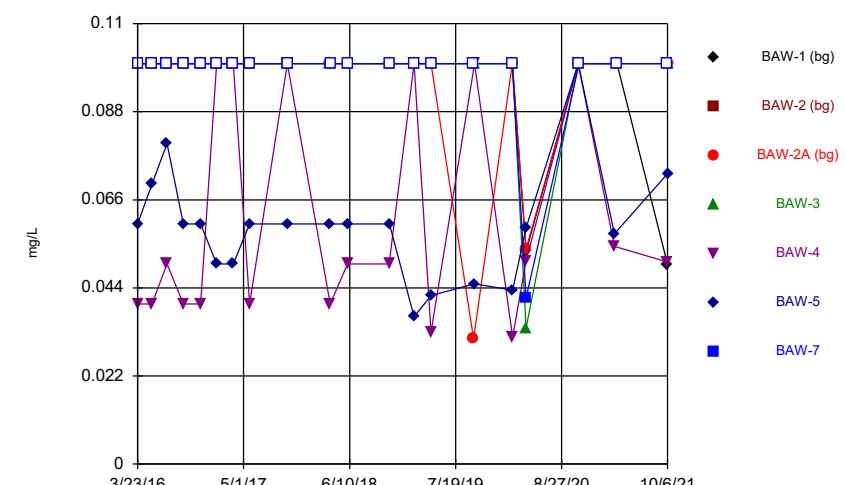
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Time Series



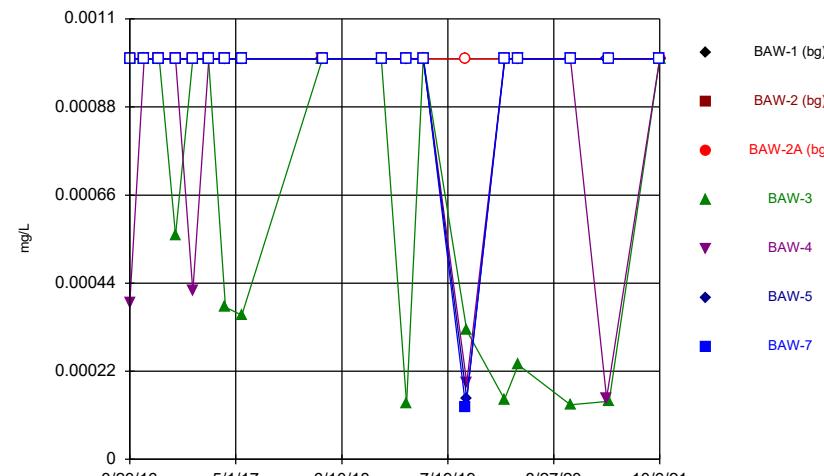
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Hollow symbols indicate censored values.

Time Series



Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
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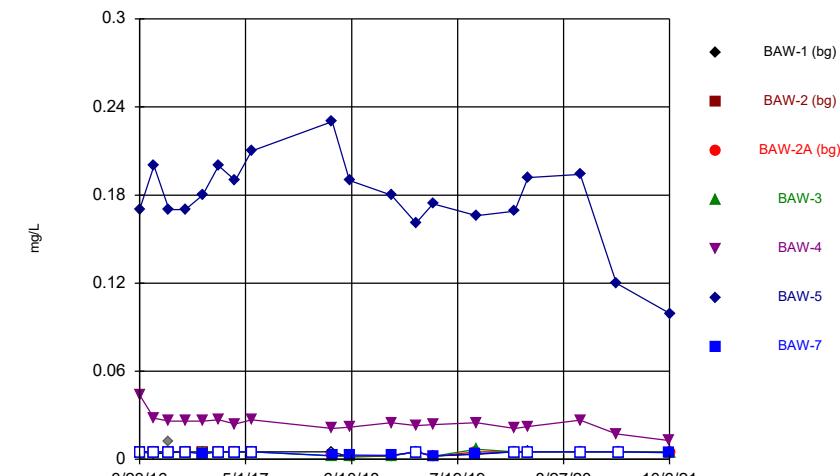
Time Series



Constituent: Lead Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

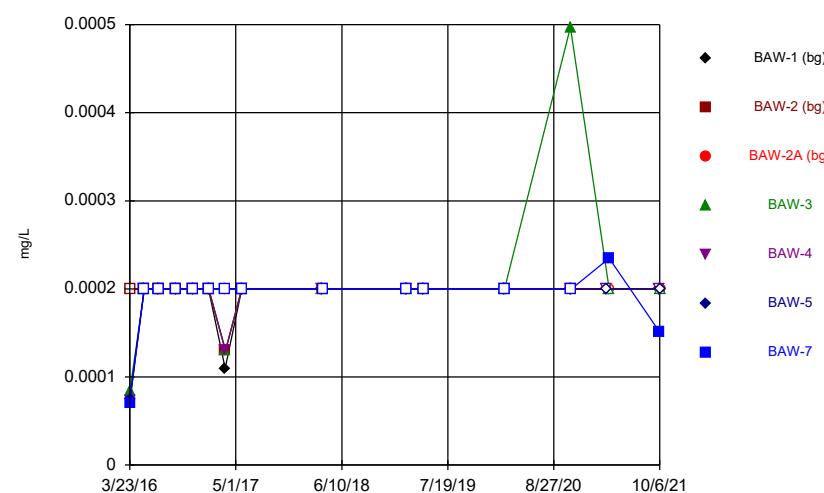
Time Series



Constituent: Lithium Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

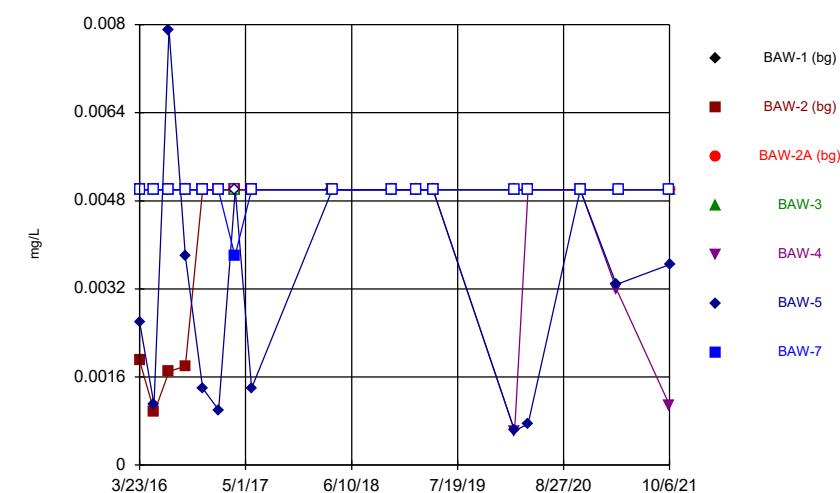
Time Series



Constituent: Mercury Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

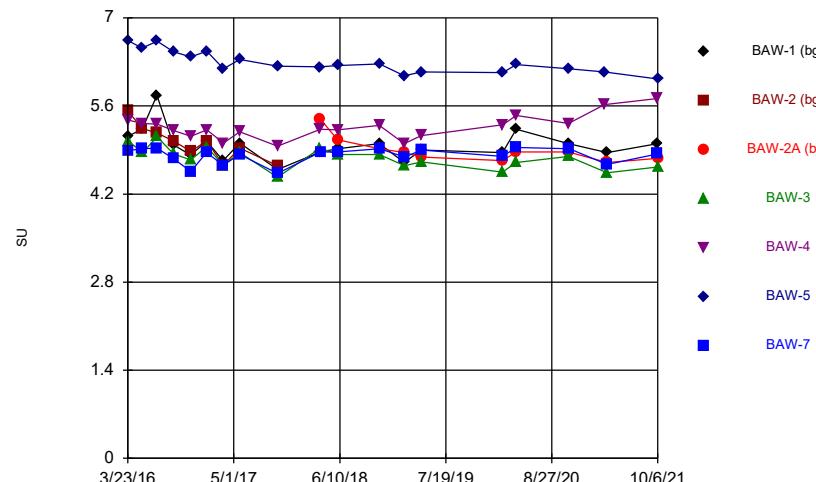
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

Time Series

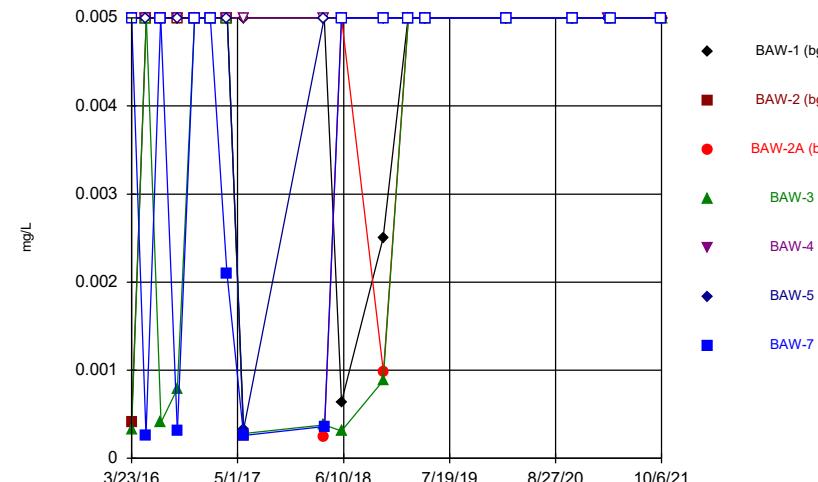


Constituent: Molybdenum Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

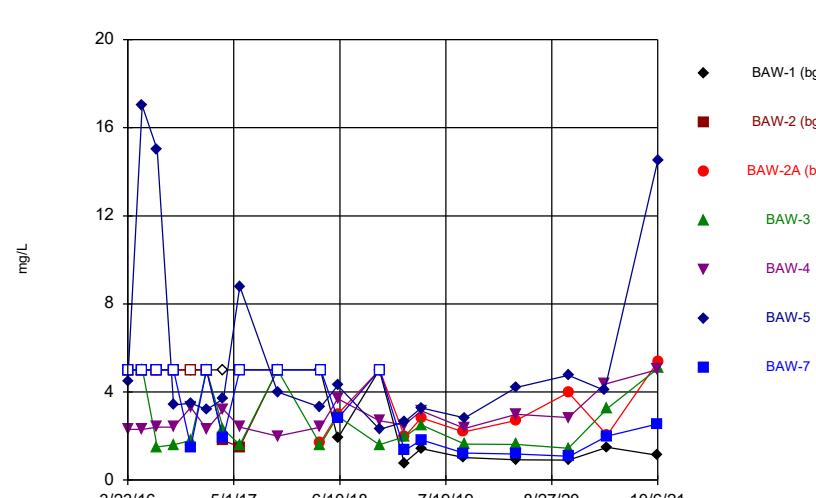
Time Series



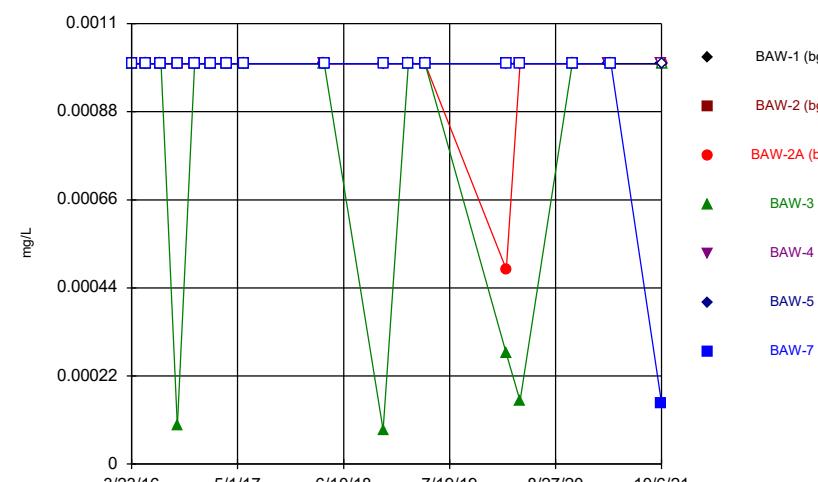
Time Series

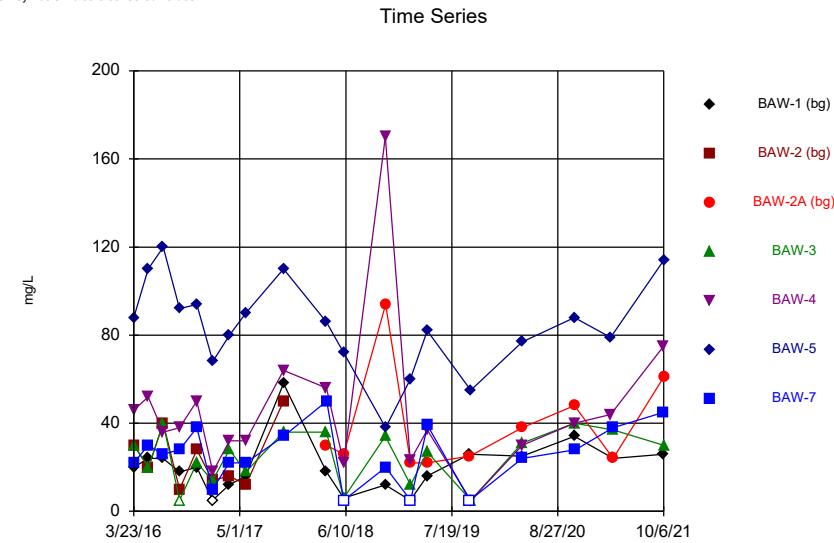


Time Series



Time Series





Constituent: Total Dissolved Solids Analysis Run 12/8/2021 2:48 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
5/17/2016	<0.002				<0.002	<0.002	<0.002
5/18/2016		<0.002		<0.002			
7/12/2016	<0.002						<0.002
7/13/2016		<0.002		<0.002	<0.002	<0.002	
9/13/2016	<0.002					<0.002	<0.002
9/14/2016		<0.002		<0.002	<0.002		
11/19/2016	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
1/17/2017	<0.002	<0.002		<0.002			<0.002
1/18/2017					<0.002	<0.002	
3/22/2017	<0.002						<0.002
3/23/2017		<0.002		<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002		<0.002	<0.002	<0.002	<0.002	
3/29/2018							<0.002
11/8/2018	0.0013 (J)			<0.002	<0.002		
11/9/2018			<0.002			<0.002	<0.002
2/11/2019	<0.002				<0.002	<0.002	
2/12/2019			<0.002	<0.002			<0.002
4/17/2019	<0.002		<0.002	<0.002	<0.002	<0.002	
4/18/2019							<0.002
2/21/2020	<0.002		<0.002	<0.002			<0.002
2/22/2020					<0.002	<0.002	
10/30/2020	<0.002		<0.002	<0.002	<0.002	<0.002	
11/2/2020							<0.002
3/17/2021					<0.002	<0.002	
3/26/2021	<0.002		<0.002	<0.002			<0.002
10/5/2021	<0.002				<0.002		<0.002
10/6/2021			<0.002	<0.002		<0.002	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	0.00087 (J)	0.0033	<0.001
5/17/2016	<0.001				<0.001	0.00089 (J)	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	0.00081 (J)	0.0039	
9/13/2016	<0.001					0.0039	<0.001
9/14/2016		<0.001		<0.001	0.00069 (J)		
11/19/2016	<0.001	<0.001		<0.001	0.0013	0.0037	0.0005 (J)
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	0.0016	
3/22/2017	<0.001						0.00052 (J)
3/23/2017		<0.001		<0.001	0.00078 (J)	0.0017	
5/24/2017	<0.001	<0.001		<0.001	0.001 (J)	0.0021	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	0.0011 (J)	
3/29/2018				<0.001			<0.001
6/2/2018	<0.001		<0.001	<0.001	0.00068 (J)	0.0017	<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			0.0021	<0.001
2/11/2019	<0.001				0.000737 (J)	0.00232	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	0.000645 (J)	0.00218	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				<0.001
9/30/2019				<0.001	0.000821 (J)	0.00272	
2/21/2020	<0.001		<0.001	<0.001			<0.001
2/22/2020					0.000837 (J)	0.00177	
4/14/2020	<0.001		<0.001	<0.001	0.000896 (J)	0.00177	<0.001
10/30/2020	<0.001		<0.001	<0.001	0.000529 (J)	0.0013	
11/2/2020							<0.001
3/17/2021					0.000454 (J)	0.00385	
3/26/2021	<0.001		<0.001	<0.001			<0.001
10/5/2021	<0.001				0.00259		<0.001
10/6/2021			<0.001	<0.001		0.0125	

Time Series

Constituent: Barium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	0.00084 (J)	0.027		0.013	0.011	0.044	0.013
5/17/2016	0.031				0.0085	0.055	0.012
5/18/2016		0.026		0.012			
7/12/2016	0.031						0.011
7/13/2016		0.024		0.016	0.0073	0.041	
9/13/2016	0.036					0.046	0.012
9/14/2016		0.026		0.018	0.0095		
11/19/2016	0.036	0.027		0.021	0.012	0.044	0.012
1/17/2017	0.036	0.029		0.029			0.014
1/18/2017					0.0096	0.045	
3/22/2017	0.033						0.012
3/23/2017		0.027		0.024	0.0093	0.038	
5/24/2017	0.034	0.028		0.022	0.0096	0.046	0.012
3/28/2018	0.032		0.036	0.026	0.0086	0.043	
3/29/2018							0.011
6/2/2018	0.033		0.032	0.029	0.0087	0.043	0.011
11/8/2018	0.032			0.028	0.0091		
11/9/2018			0.033			0.039	0.011
2/11/2019	0.0308				0.00931	0.0388	
2/12/2019			0.0348	0.0274			0.0102
4/17/2019	0.0305		0.0396	0.0263	0.00888	0.0378	
4/18/2019							0.0101
9/27/2019	0.0319		0.0373				0.0121
9/30/2019				0.0343	0.0103	0.0424	
2/21/2020	0.0327		0.0373	0.0304			0.0117
2/22/2020					0.0108	0.0453	
4/14/2020	0.0345		0.0394	0.0335	0.00949 (J)	0.0452	0.0124
10/30/2020	0.0314		0.0334	0.0349	0.0116	0.0428	
11/2/2020							0.0117
3/17/2021					0.0224	0.0382	
3/26/2021	0.0347		0.0287	0.0253			0.0184
10/5/2021	0.0391				0.0283		0.02
10/6/2021		<0.01		0.03		0.0493	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.001		<0.001	<0.001		
11/19/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		<0.001	<0.001	<0.001	
5/24/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
2/21/2020	<0.001		0.000207 (J)	<0.001			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	<0.001	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	<0.001			<0.001
10/5/2021	<0.001				<0.001		0.000185 (J)
10/6/2021			<0.001	<0.001		<0.001	

Time Series

Constituent: Boron (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.08	<0.08		<0.08	0.037 (J)	0.22	<0.08
5/17/2016	<0.08				<0.08	0.35	<0.08
5/18/2016		<0.08		<0.08			
7/12/2016	<0.08						<0.08
7/13/2016		<0.08		<0.08	0.032 (J)	0.5	
9/13/2016	<0.08			<0.08		0.27	<0.08
9/14/2016		<0.08		<0.08	0.027 (J)		
11/19/2016	<0.08	<0.08		<0.08	0.024 (J)	0.19	<0.08
1/17/2017	<0.08	<0.08		<0.08			<0.08
1/18/2017					<0.08	0.19	
3/22/2017	<0.08						<0.08
3/23/2017		<0.08		<0.08	0.024 (J)	0.19	
5/24/2017	<0.08	<0.08		<0.08	0.027 (J)	0.22	<0.08
10/16/2017	<0.08	<0.08		<0.08	0.03 (J)	0.19	<0.08
3/28/2018	<0.08		<0.08	<0.08	<0.08	0.17	
3/29/2018				<0.08			<0.08
6/2/2018	<0.08		<0.08	<0.08	0.025 (J)	0.16	<0.08
11/8/2018	<0.08			<0.08	0.024 (J)		
11/9/2018			<0.08			0.13	<0.08
2/11/2019	<0.08				<0.08	0.126	
2/12/2019			<0.08	<0.08			<0.08
4/17/2019	<0.08		<0.08	<0.08	<0.08	0.118	
4/18/2019							<0.08
9/27/2019	<0.08		<0.08				<0.08
9/30/2019				<0.08	<0.08	0.14	
2/21/2020	0.0928		0.0589 (J)	<0.08			<0.08
2/22/2020					<0.08	0.193	
4/14/2020	<0.08		0.0424 (J)	<0.08	<0.08	0.209	<0.08
10/30/2020	<0.08		0.0495 (J)	<0.08	<0.08	0.194	
11/2/2020							<0.08
3/17/2021					0.0673 (J)	0.2	
3/26/2021	<0.08		<0.08	<0.08			0.647
10/5/2021	<0.08				0.168		0.281
10/6/2021			<0.08	<0.08		0.272	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		0.00041 (J)	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		0.00087 (J)	<0.001	<0.001	
9/13/2016	<0.001			0.00078 (J)	<0.001	<0.001	<0.001
9/14/2016		<0.001					
11/19/2016	<0.001	<0.001		0.00054 (J)	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		0.00048 (J)			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		0.00059 (J)	<0.001	<0.001	
5/24/2017	<0.001	<0.001		0.00081 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	0.0008 (J)	<0.001	<0.001	
3/29/2018							<0.001
6/2/2018	<0.001		<0.001	0.001 (J)	<0.001	<0.001	<0.001
11/8/2018	<0.001			0.00085 (J)	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			0.000143 (J)	0.000877 (J)			<0.001
4/17/2019	<0.001		<0.001	0.000915 (J)	<0.001	<0.001	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				<0.001
9/30/2019				0.00112 (J)	<0.001	0.000155 (J)	
2/21/2020	<0.001		<0.001	0.000962 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.00107 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	0.00084 (J)	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	0.000615 (J)			<0.001
10/5/2021	<0.001				<0.001		<0.001
10/6/2021			<0.001	0.000338 (J)		<0.001	

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.5	2.6 (o)		1.1	3.7	18	0.65
5/17/2016	0.84				3.4	23	0.68
5/18/2016		1.3		0.56			
7/12/2016	0.79						0.62
7/13/2016		1.1		0.95	2.8	18	
9/13/2016	0.42					19	0.25
9/14/2016		1.1		0.4	2.6		
11/19/2016	1.2	1		0.62	2.7	17	0.36
1/17/2017	1.4	0.87		1.2			0.66
1/18/2017					3.1	17	
3/22/2017	0.95						0.65
3/23/2017		0.74		0.87	2.8	15	
5/24/2017	1.3	0.84		0.81	3.1	19	0.72
10/16/2017	0.93	0.76		0.86	3.3	17	0.7
3/28/2018	1		2.8	0.97	2.7	16	
3/29/2018				0.61			0.55
6/2/2018	0.93		0.71	0.86	2.9	15	0.6
11/8/2018	1			0.84	3		
11/9/2018				0.61			0.59
2/11/2019	1				2.88	12.8	
2/12/2019			0.757	0.856			0.608
4/17/2019	0.893		0.755	0.711	2.77	13	
4/18/2019							0.55
9/27/2019	0.8		0.663				0.598
9/30/2019				0.826	3.08	13.6	
2/21/2020	1.02		0.648	0.841			0.552
2/22/2020					3.86	15	
4/14/2020	0.887		0.67	0.811	2.95	15.7	0.532
10/30/2020	0.945		0.672	1	3.84	16.4	
11/2/2020							0.535
3/17/2021					6.69	15.3	
3/26/2021	0.965		0.644	0.937			0.848
10/5/2021	0.996				8.57		0.829
10/6/2021			<0.5	0.532		22.8	

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	6.5	5.1		7.3	7.6	9	6.5
5/17/2016	4.9				6.4	13	5.1
5/18/2016		4.2		6			
7/12/2016	5.3						5
7/13/2016		4.7		6.6	6.3	10	
9/13/2016	4.8 (F1)					7.9	5.1
9/14/2016		4.5		5.8	6		
11/19/2016	7.1	6.1		7.8	7	9.3	6.5
1/17/2017	5.8	5.4		8.4			5.9
1/18/2017					6.7	8.5	
3/22/2017	4.9						5.1
3/23/2017		5.1		6.8	6	8.5	
5/24/2017	5.9	5.5		7.9	7.4	11	5.9
10/16/2017	5.7	6.1		7.7	6.6	9.7	5.6
3/28/2018	5.7		6.7	7.9	6.5	8.8	
3/29/2018							5.3
6/2/2018	4.7		5.8	7.7	6.1	8.3	4.6
11/8/2018	5.6			8.5	6.6		
11/9/2018			7.2			9.7	4.9
2/11/2019	4.84				6.31	8.84	
2/12/2019			8.4	7.89			4.72
4/17/2019	4.99		8.03	7.71	6.68	9.24	
4/18/2019							4.64
9/27/2019	5.08		8.37				5.02
9/30/2019				7.07	5.45	8.59	
4/14/2020	4.91		7.57	8.75	5.93	8.71	4.68
10/30/2020	5.55		7.59	9.58	6.49	8.93	
11/2/2020							4.91
3/17/2021					7.55	9.6	
3/26/2021	5.92		6.21	8.32			8.5
10/5/2021	6.21				14.3		10.3
10/6/2021			16.4	6.8		5.44	

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.002	<0.002		<0.002	0.0015 (J)	0.0012 (J)	<0.002
5/17/2016	<0.002				<0.002	<0.002	<0.002
5/18/2016		<0.002		<0.002			
7/12/2016	<0.002						<0.002
7/13/2016		0.0028		0.003	0.0015 (J)	0.0024 (J)	
9/13/2016	<0.002					<0.002	<0.002
9/14/2016		0.0014 (J)		<0.002	<0.002		
11/19/2016	<0.002	<0.002		<0.002	0.0011 (J)	<0.002	<0.002
1/17/2017	<0.002	<0.002		<0.002			<0.002
1/18/2017					<0.002	<0.002	
3/22/2017	<0.002						<0.002
3/23/2017		<0.002		<0.002	<0.002	<0.002	
5/24/2017	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
3/28/2018	<0.002		<0.002	<0.002	<0.002	0.005	
3/29/2018							<0.002
6/2/2018	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002
11/8/2018	<0.002			<0.002	<0.002		
11/9/2018			<0.002			<0.002	<0.002
2/11/2019	<0.002				<0.002	<0.002	
2/12/2019			<0.002	0.00165 (J)			<0.002
4/17/2019	<0.002		<0.002	<0.002	<0.002	<0.002	
4/18/2019							<0.002
9/27/2019	0.00286		0.00284				0.00206 (J)
9/30/2019				<0.002	<0.002	<0.002	
2/21/2020	<0.002		<0.002	<0.002			<0.002
2/22/2020					<0.002	<0.002	
10/30/2020	<0.002		<0.002	<0.002	<0.002	<0.002	
11/2/2020							<0.002
3/17/2021					<0.002	<0.002	
3/26/2021	<0.002		<0.002	<0.002			<0.002
10/5/2021	<0.002				<0.002		<0.002
10/6/2021			<0.002	<0.002		<0.002	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0005	0.00048 (J)		0.0055	0.00094 (J)	<0.0005	0.0011 (J)
5/17/2016	0.00099 (J)				0.0007 (J)	<0.0005	0.001 (J)
5/18/2016		<0.0005		0.0059			
7/12/2016	0.00093 (J)						0.00091 (J)
7/13/2016		0.001 (J)		0.0048	0.0016 (J)	0.00042 (J)	
9/13/2016	0.0011 (J)					<0.0005	0.001 (J)
9/14/2016		0.00051 (J)		0.0063	0.0011 (J)		
11/19/2016	0.001 (J)	0.0005 (J)		0.0056	0.0012 (J)	<0.0005	0.00083 (J)
1/17/2017	0.00088 (J)	0.00049 (J)		0.0046			0.00091 (J)
1/18/2017					0.0011 (J)	<0.0005	
3/22/2017	0.001 (J)						0.00098 (J)
3/23/2017		0.00057 (J)		0.0049	0.0011 (J)	<0.0005	
5/24/2017	0.00093 (J)	0.00057 (J)		0.0052	0.0012 (J)	<0.0005	0.00098 (J)
3/28/2018	0.00092 (J)		0.00098 (J)	0.0063	0.00095 (J)	<0.0005	
3/29/2018							0.00063 (J)
6/2/2018	0.001 (J)		0.0009 (J)	0.0068	0.0012 (J)	<0.0005	0.00087 (J)
11/8/2018	0.001 (J)			0.0068	0.0011 (J)		
11/9/2018			0.00075 (J)			<0.0005	0.00076 (J)
2/11/2019	0.000768 (J)				0.00093 (J)	<0.0005	
2/12/2019			0.000896 (J)	0.00552			0.000661 (J)
4/17/2019	0.000825 (J)		0.00106 (J)	0.00603	0.00116 (J)	<0.0005	
4/18/2019							0.000705 (J)
9/27/2019	0.000783 (J)		0.000885 (J)				0.00071 (J)
9/30/2019				0.0062	0.001 (J)	<0.0005	
2/21/2020	0.00073 (J)		0.000909 (J)	0.00576			0.000634 (J)
2/22/2020					0.000907 (J)	<0.0005	
4/14/2020	0.000853 (J)		0.000899 (J)	0.00633	0.00105 (J)	<0.0005	0.000684 (J)
10/30/2020	0.000924 (J)		0.000972 (J)	0.00657	0.00102 (J)	<0.0005	
11/2/2020							0.000729 (J)
3/17/2021					0.00208	<0.0005	
3/26/2021	0.000961		0.000744	0.00339			0.000995
10/5/2021	0.00143				0.00187		0.00112
10/6/2021			<0.0005	0.00336			0.000802

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5		<5	<5	0.549	<5
5/17/2016	0.813				<5	0.551	<5
5/18/2016		0.471		<5			
7/12/2016	-0.00163 (U)						0.165 (U)
7/13/2016		0.401		0.27 (U)	0.0365 (U)	0.859	
9/13/2016	0.41 (U)					0.367 (U)	0.341 (U)
9/14/2016		-0.033 (U)		-0.0909 (U)	0.3 (U)		
11/19/2016	0.783	0.358		0.416	<5 (U)	<5 (U)	<5 (U)
1/17/2017	0.613	0.799		0.412 (U)			0.124 (U)
1/18/2017					0.235 (U)	0.289 (U)	
3/22/2017	0.241 (U)						0.0719 (U)
3/23/2017		0.182 (U)		0.0761 (U)	0.168 (U)	0.554	
5/24/2017	0.325	0.404		0.0415 (U)	-0.0607 (U)	0.831	0.441
3/28/2018	0.318 (U)		0.629	0.398	0.42	0.458	
3/29/2018							0.731
6/2/2018	0.222 (U)		-0.478 (U)	-0.253 (U)	0.0844 (U)	0.226 (U)	0.303 (U)
11/8/2018	0.117 (U)			0.343 (U)	0.367 (U)		
11/9/2018			0.179 (U)			0.298 (U)	0.00226 (U)
2/11/2019	0.493				0.0402 (U)	0.15 (U)	
2/12/2019		0.432		0.581			0.094 (U)
4/17/2019	0.729		0.648	0.646	0.493	0.326 (U)	
4/18/2019							0.48
9/27/2019	0.36 (U)		0.422 (U)				0.497
9/30/2019				1	0.404		
2/21/2020	0.268 (U)		0.23 (U)	0.126 (U)			0.375
2/22/2020					0.53	0.47	
4/14/2020	0.324 (U)		0.307 (U)	0.338	0.0408 (U)	0.376 (U)	0.329 (U)
10/30/2020	0.497		1.02	0.485	0.344	0.528	
11/2/2020							0.535
3/17/2021					0.312 (U)	0.0889 (U)	
3/26/2021	0.804		0.526	0.78			0.813
10/5/2021	1.53				1.06		0.814
10/6/2021			0.937	0.503		0.931	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
5/17/2016	<0.1				0.04 (J)	0.07 (J)	<0.1
5/18/2016		<0.1		<0.1			
7/12/2016	<0.1						<0.1
7/13/2016		<0.1		<0.1	0.05 (J)	0.08 (J)	
9/13/2016	<0.1					0.06 (J)	<0.1
9/14/2016		<0.1		<0.1	0.04 (J)		
11/19/2016	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1
1/17/2017	<0.1	<0.1		<0.1			<0.1
1/18/2017					<0.1	0.05 (J)	
3/22/2017	<0.1						<0.1
3/23/2017		<0.1		<0.1	<0.1	0.05 (J)	
5/24/2017	<0.1	<0.1		<0.1	0.04 (J)	0.06 (J)	<0.1 (D)
10/16/2017	<0.1	<0.1		<0.1	<0.1	0.06 (J)	<0.1
3/28/2018	<0.1		<0.1	<0.1	0.04 (J)	0.06 (J)	
3/29/2018							<0.1
6/2/2018	<0.1		<0.1	<0.1	0.05 (J)	0.06 (J)	<0.1
11/8/2018	<0.1			<0.1	0.05 (J)		
11/9/2018			<0.1			0.06 (J)	<0.1
2/11/2019	<0.1				<0.1	0.0368 (J)	
2/12/2019			<0.1	<0.1			<0.1
4/17/2019	<0.1		<0.1	<0.1	0.033 (J)	0.0421 (J)	
4/18/2019							<0.1
9/27/2019	<0.1		0.0313 (J)				<0.1
9/30/2019				<0.1	<0.1	0.045 (J)	
2/21/2020	<0.1		<0.1	<0.1			<0.1
2/22/2020					0.0317 (J)	0.0434 (J)	
4/14/2020	0.0532 (J)		0.0537 (J)	0.034 (J)	0.0508 (J)	0.059 (J)	0.0415 (J)
10/30/2020	<0.1		<0.1	<0.1	<0.1	<0.1	
11/2/2020							<0.1
3/17/2021					0.0544 (J)	0.0575 (J)	
3/26/2021	<0.1		<0.1	<0.1			<0.1
10/5/2021	0.0499 (J)				0.0505 (J)		<0.1
10/6/2021			<0.1	<0.1		0.0725 (J)	

Time Series

Constituent: Lead (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	0.00039 (J)	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.001		0.00056 (J)	<0.001		
11/19/2016	<0.001	<0.001		<0.001	0.00042 (J)	<0.001	<0.001
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		0.00038 (J)	<0.001	<0.001	
5/24/2017	<0.001	<0.001		0.00036 (J)	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			<0.001	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019				<0.001	0.000139 (J)		<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
9/27/2019	<0.001		<0.001				0.000129 (J)
9/30/2019				0.000322 (J)	0.000191 (J)	0.000152 (J)	
2/21/2020	<0.001		<0.001	0.00015 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.000236 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	0.000136 (J)	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					0.000153 (J)	<0.001	
3/26/2021	<0.001		<0.001	0.000145 (J)			<0.001
10/5/2021	<0.001				<0.001		<0.001
10/6/2021			<0.001	<0.001		<0.001	

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	<0.005		<0.005	0.044	0.17	<0.005
5/17/2016	0.0037 (J)				0.028	0.2	<0.005
5/18/2016		<0.005		<0.005			
7/12/2016	0.012 (o)						<0.005
7/13/2016		<0.005		<0.005	0.026	0.17	
9/13/2016	<0.005					0.17	<0.005
9/14/2016		<0.005		<0.005	0.026		
11/19/2016	<0.005	<0.005		<0.005	0.026	0.18	0.0035 (J)
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					0.027	0.2	
3/22/2017	<0.005						<0.005
3/23/2017		<0.005		<0.005	0.024	0.19	
5/24/2017	<0.005	<0.005		<0.005	0.027	0.21	<0.005
3/28/2018	<0.005		0.0026 (J)	0.0023 (J)	0.021	0.23	
3/29/2018							0.0026 (J)
6/2/2018	0.0017 (J)		0.0021 (J)	0.002 (J)	0.022	0.19	0.0029 (J)
11/8/2018	0.0023 (J)			0.0024 (J)	0.025		
11/9/2018			0.0024 (J)			0.18	0.0027 (J)
2/11/2019	<0.005				0.0229	0.161	
2/12/2019		<0.005		<0.005			<0.005
4/17/2019	0.00229 (J)		0.00191 (J)	0.00197 (J)	0.0236	0.174	
4/18/2019							0.00238 (J)
9/27/2019	0.00346 (J)		<0.005				0.00375 (J)
9/30/2019				0.00687	0.0249	0.166	
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					0.0211	0.169	
4/14/2020	0.00505		<0.005	<0.005	0.0224	0.192	<0.005
10/30/2020	<0.005		<0.005	<0.005	0.0267	0.194	
11/2/2020							<0.005
3/17/2021					0.0174	0.12	
3/26/2021	<0.005		<0.005	<0.005			<0.005
10/5/2021	<0.005				0.0127		0.0045 (J)
10/6/2021			<0.005	<0.005		0.0994	

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.0002	<0.0002		8.4E-05 (JB)	7.3E-05 (JB)	7.4E-05 (JB)	7.1E-05 (JB)
5/17/2016	<0.0002				<0.0002	<0.0002	<0.0002
5/18/2016		<0.0002		<0.0002			
7/12/2016	<0.0002						<0.0002
7/13/2016		<0.0002		<0.0002	<0.0002	<0.0002	
9/13/2016	<0.0002					<0.0002	<0.0002
9/14/2016		<0.0002		<0.0002	<0.0002		
11/19/2016	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002	<0.0002		<0.0002			<0.0002
1/18/2017					<0.0002	<0.0002	
3/22/2017	0.00011 (J)						<0.0002
3/23/2017		0.00013 (J)		0.00013 (J)	0.00013 (J)	<0.0002	
5/24/2017	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
3/28/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/29/2018							<0.0002
2/11/2019	<0.0002				<0.0002	<0.0002	
2/12/2019		<0.0002		<0.0002			<0.0002
4/17/2019	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
4/18/2019							<0.0002
2/21/2020	<0.0002		<0.0002	<0.0002			<0.0002
2/22/2020					<0.0002	<0.0002	
10/30/2020	<0.0002		<0.0002	0.000497	<0.0002	<0.0002	
11/2/2020							<0.0002
3/17/2021					<0.0002	<0.0002	
3/26/2021	<0.0002		<0.0002	<0.0002			0.000235
10/5/2021	<0.0002				<0.0002		0.000151 (J)
10/6/2021		<0.0002		<0.0002		<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.0019 (J)		<0.005	<0.005	0.0026 (J)	<0.005
5/17/2016	<0.005				<0.005	0.0011 (J)	<0.005
5/18/2016		0.00096 (J)		<0.005			
7/12/2016	<0.005						<0.005
7/13/2016		0.0017 (J)		<0.005	<0.005	0.0079 (J)	
9/13/2016	<0.005					0.0038 (J)	<0.005
9/14/2016		0.0018 (J)		<0.005	<0.005		
11/19/2016	<0.005	<0.005		<0.005	<0.005	0.0014 (J)	<0.005
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					<0.005	0.001 (J)	
3/22/2017	<0.005						0.0038 (J)
3/23/2017		<0.005		<0.005	<0.005	<0.005	
5/24/2017	<0.005	<0.005		<0.005	<0.005	0.0014 (J)	<0.005
3/28/2018	<0.005		<0.005	<0.005	<0.005	<0.005	
3/29/2018							<0.005
11/8/2018	<0.005			<0.005	<0.005		
11/9/2018			<0.005			<0.005	<0.005
2/11/2019	<0.005				<0.005	<0.005	
2/12/2019			<0.005	<0.005			<0.005
4/17/2019	<0.005		<0.005	<0.005	<0.005	<0.005	
4/18/2019							<0.005
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					0.000616 (J)	0.000627 (J)	
4/14/2020	<0.005		<0.005	<0.005	<0.005	0.000747 (J)	<0.005
10/30/2020	<0.005		<0.005	<0.005	<0.005	<0.005	
11/2/2020							<0.005
3/17/2021					0.0032 (J)	0.00328 (J)	
3/26/2021	<0.005		<0.005	<0.005			<0.005
10/5/2021	<0.005				0.00109 (J)		<0.005
10/6/2021			<0.005	<0.005		0.00364 (J)	

Time Series

Constituent: pH (SU) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	5.12	5.52		5.05	5.38	6.64	4.89
5/17/2016	5.23				5.32	6.52	4.92
5/18/2016		5.24		4.86			
7/12/2016	5.77						4.93
7/13/2016		5.17		5.11	5.31	6.63	
9/13/2016	4.98					6.46	4.76
9/14/2016		5.04		4.84	5.21		
11/19/2016	4.82	4.88		4.74	5.12	6.38	4.56
1/17/2017	5.04	5.04		4.95			4.86
1/18/2017					5.22	6.47	
3/22/2017	4.73						4.66
3/23/2017		4.66		4.66	5.01	6.19	
5/24/2017	5.01	4.93		4.86	5.19	6.34	4.83
10/16/2017	4.59	4.65		4.47	4.96	6.23	4.53
3/28/2018	4.87		5.39	4.93	5.23	6.22	
3/29/2018							4.87
6/2/2018	4.92		5.06	4.83	5.22	6.24	4.87
11/8/2018	5			4.83	5.29		
11/9/2018			4.92			6.27	4.92
2/11/2019	4.7				5	6.08	
2/12/2019			4.86	4.65			4.79
4/17/2019	4.9		4.79	4.71	5.13	6.14	
4/18/2019							4.9
2/21/2020	4.86		4.73	4.55			4.8
2/22/2020					5.3	6.13	
4/14/2020	5.23		4.87	4.7	5.45	6.26	4.94
10/30/2020	5		4.87	4.8	5.32	6.19	
11/2/2020							4.92
3/17/2021					5.62	6.14	
3/26/2021	4.86		4.7	4.54			4.67
10/5/2021	5				5.72		4.84
10/6/2021			4.77	4.63		6.03	

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.005	0.00041 (J)		0.00033 (J)	<0.005	<0.005	<0.005
5/17/2016	<0.005				<0.005	<0.005	0.00026 (J)
5/18/2016		<0.005		<0.005			
7/12/2016	<0.005						<0.005
7/13/2016		<0.005		0.00041 (J)	<0.005	<0.005	
9/13/2016	<0.005			0.00079 (J)	<0.005	<0.005	0.00031 (J)
9/14/2016		<0.005					
11/19/2016	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
1/17/2017	<0.005	<0.005		<0.005			<0.005
1/18/2017					<0.005	<0.005	
3/22/2017	<0.005						0.0021
3/23/2017		<0.005		<0.005	<0.005	<0.005	
5/24/2017	<0.005	0.00026 (J)		0.00028 (J)	<0.005	0.00033 (J)	0.00026 (J)
3/28/2018	<0.005		0.00024 (J)	0.00038 (J)	<0.005	<0.005	
3/29/2018							0.00036 (J)
6/2/2018	0.00064 (J)		<0.005	0.00031 (J)	<0.005	<0.005	<0.005
11/8/2018	0.0025			0.00088 (J)	<0.005		
11/9/2018			0.00098 (J)			<0.005	<0.005
2/11/2019	<0.005				<0.005	<0.005	
2/12/2019			<0.005	<0.005			<0.005
4/17/2019	<0.005		<0.005	<0.005	<0.005	<0.005	
4/18/2019							<0.005
2/21/2020	<0.005		<0.005	<0.005			<0.005
2/22/2020					<0.005	<0.005	
10/30/2020	<0.005		<0.005	<0.005	<0.005	<0.005	
11/2/2020							<0.005
3/17/2021					<0.005	<0.005	
3/26/2021	<0.005		<0.005	<0.005			<0.005
10/5/2021	<0.005				<0.005	<0.005	
10/6/2021			<0.005	<0.005		<0.005	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<5	<5		<5	2.3 (J)	4.5 (J)	<5
5/17/2016	<5				2.3 (J)	17	<5
5/18/2016		<5		<5			
7/12/2016	<5						<5
7/13/2016		<5		1.5 (J)	2.4 (J)	15	
9/13/2016	<5					3.4 (J)	<5
9/14/2016		<5		1.6 (J)	2.4 (J)		
11/19/2016	<5	<5		1.8 (J)	3.3 (J)	3.5 (J)	1.5 (J)
1/17/2017	<5	<5		<5			<5
1/18/2017					2.3 (J)	3.2 (J)	
3/22/2017	<5						1.9 (J)
3/23/2017		1.8 (J)		2.3 (J)	3.2 (J)	3.7 (J)	
5/24/2017	<5	1.5 (J)		1.6 (J)	2.4 (J)	8.8	<5
10/16/2017	<5	<5		<5	2 (J)	4 (J)	<5
3/28/2018	<5		1.7 (J)	1.6 (J)	2.4 (J)	3.3 (J)	
3/29/2018							<5
6/2/2018	1.9 (J)		3 (J)	2.9 (J)	3.7 (J)	4.3 (J)	2.8 (J)
11/8/2018	<5			1.6 (J)	2.7 (J)		
11/9/2018			<5			2.3 (J)	<5
2/11/2019	0.774 (J)				2.5	2.64	
2/12/2019			1.97	1.97			1.35
4/17/2019	1.43		2.82	2.5	3.15	3.27	
4/18/2019							1.82
9/27/2019	1.03		2.19				1.22
9/30/2019				1.64	2.34	2.82	
4/14/2020	0.928 (J)		2.71	1.62	2.99	4.2	1.18
10/30/2020	0.91 (J)		3.97	1.44	2.84	4.76	
11/2/2020							1.08
3/17/2021					4.35	4.07	
3/26/2021	1.49		2.04	3.25			2
10/5/2021	1.13				5.02		2.55
10/6/2021			5.37	5.07			14.5

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
5/17/2016	<0.001				<0.001	<0.001	<0.001
5/18/2016		<0.001		<0.001			
7/12/2016	<0.001						<0.001
7/13/2016		<0.001		<0.001	<0.001	<0.001	
9/13/2016	<0.001					<0.001	<0.001
9/14/2016		<0.001		9.5E-05 (J)	<0.001		
11/19/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
1/17/2017	<0.001	<0.001		<0.001			<0.001
1/18/2017					<0.001	<0.001	
3/22/2017	<0.001						<0.001
3/23/2017		<0.001		<0.001	<0.001	<0.001	
5/24/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
3/28/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
3/29/2018							<0.001
11/8/2018	<0.001			8.5E-05 (J)	<0.001		
11/9/2018			<0.001			<0.001	<0.001
2/11/2019	<0.001				<0.001	<0.001	
2/12/2019			<0.001	<0.001			<0.001
4/17/2019	<0.001		<0.001	<0.001	<0.001	<0.001	
4/18/2019							<0.001
2/21/2020	<0.001		0.000486 (J)	0.000276 (J)			<0.001
2/22/2020					<0.001	<0.001	
4/14/2020	<0.001		<0.001	0.000158 (J)	<0.001	<0.001	<0.001
10/30/2020	<0.001		<0.001	<0.001	<0.001	<0.001	
11/2/2020							<0.001
3/17/2021					<0.001	<0.001	
3/26/2021	<0.001		<0.001	<0.001			<0.001
10/5/2021	<0.001				<0.001		0.000153 (J)
10/6/2021			<0.001	<0.001		<0.001	

Time Series

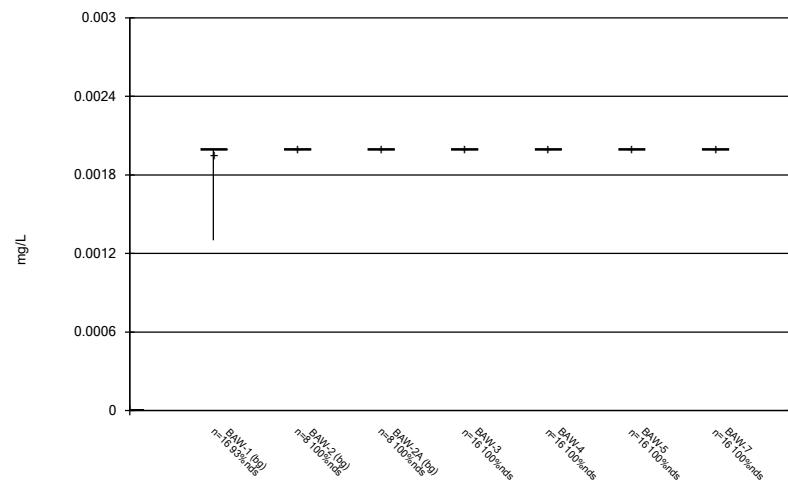
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-2 (bg)	BAW-2A (bg)	BAW-3	BAW-4	BAW-5	BAW-7
3/23/2016	20	30		30	46	88	22
5/17/2016	24				52	110	30
5/18/2016		20		20			
7/12/2016	24						26
7/13/2016		40		40	36	120	
9/13/2016	18			<10	38		28
9/14/2016		10					
11/19/2016	20	28		22	50	94	38
1/17/2017	<10	14		14			10
1/18/2017					18	68	
3/22/2017	12						22
3/23/2017		16		28	32	80	
5/24/2017	16 (D)	12		18	32	90	22
10/16/2017	58	50		36	64	110	34
3/28/2018	18		30	36	56	86	
3/29/2018							50
6/2/2018	6		26	6	22	72	<10
11/8/2018	12			34	170		
11/9/2018			94			38	20
2/11/2019	<10				23	60	
2/12/2019			22	12			<10
4/17/2019	16		22	27	37	82	
4/18/2019							39
9/27/2019	26		25				<10
9/30/2019				<10	<10	55	
4/14/2020	25		38	31	30	77	24
10/30/2020	34		48	40	40	88	
11/2/2020							28
3/17/2021					44	79	
3/26/2021	24		24	37			38
10/5/2021	26				75		45
10/6/2021			61	30		114	

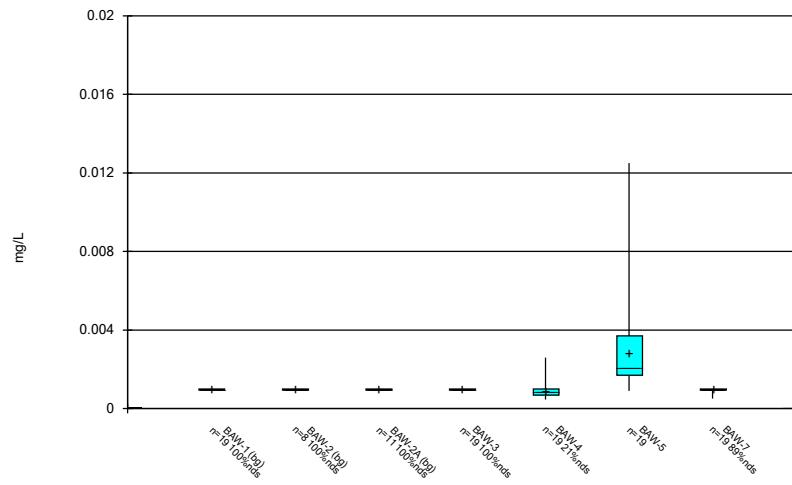
FIGURE B.

Box & Whiskers Plot



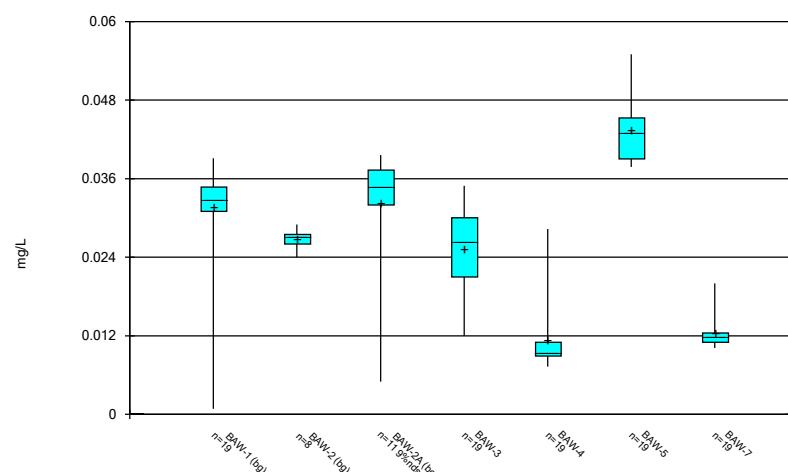
Constituent: Antimony Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



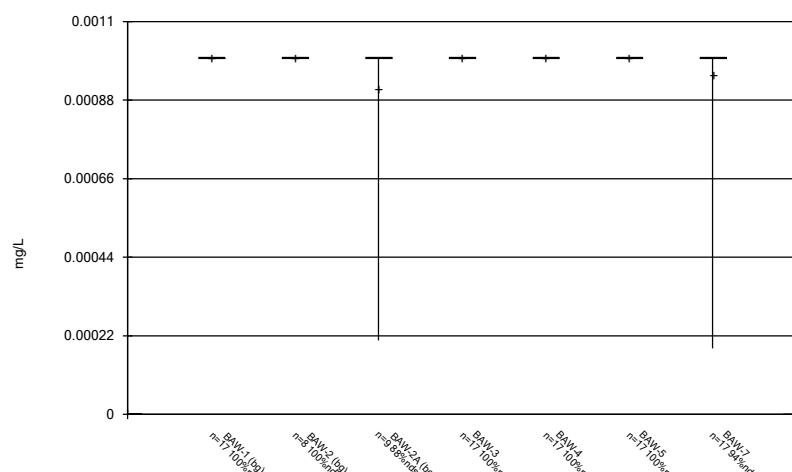
Constituent: Arsenic Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



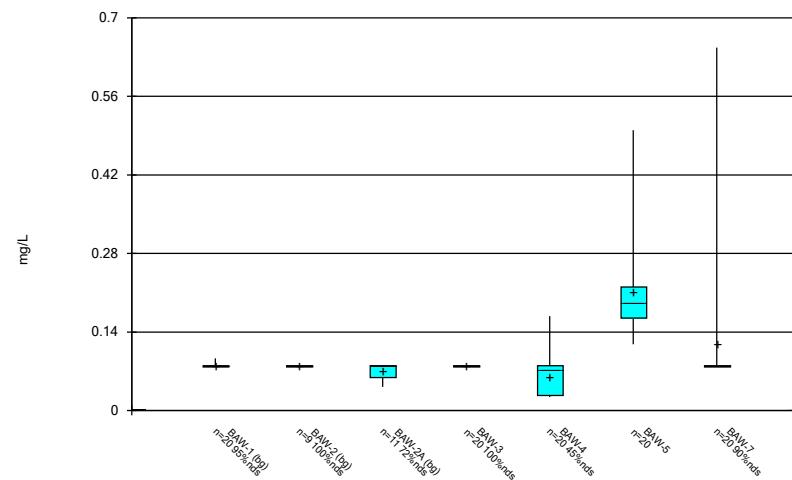
Constituent: Barium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



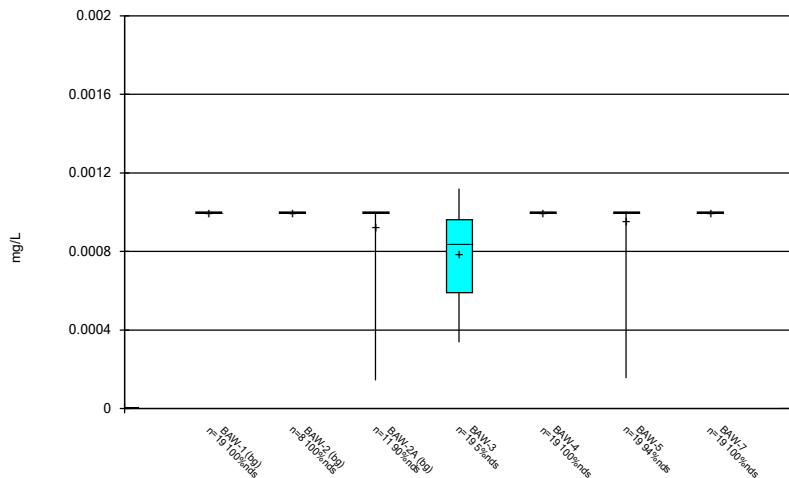
Constituent: Beryllium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



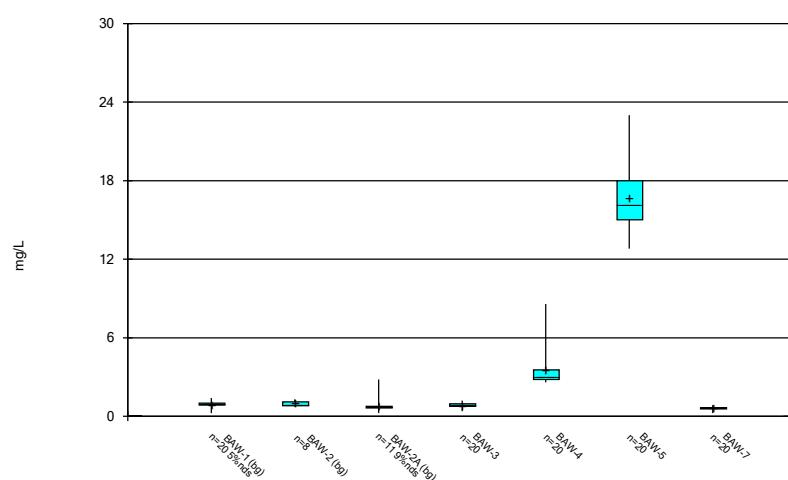
Constituent: Boron Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



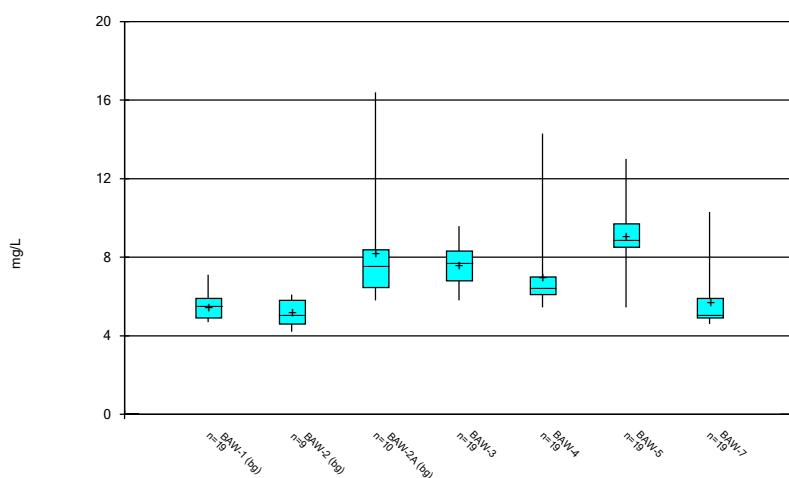
Constituent: Cadmium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



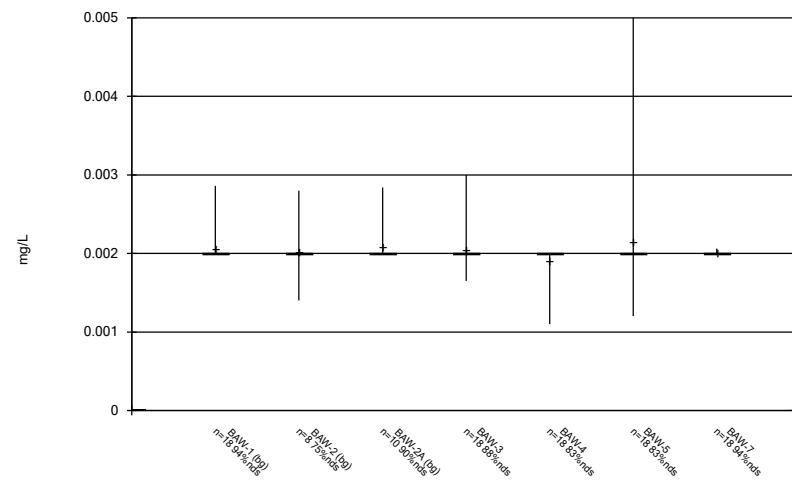
Constituent: Calcium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



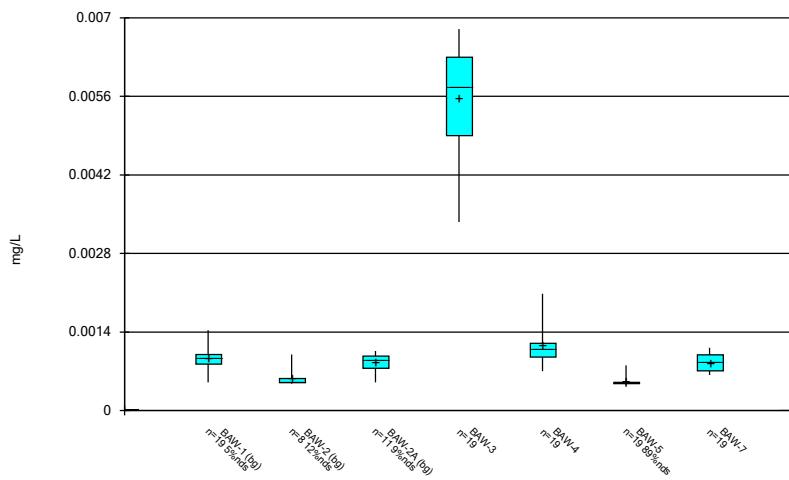
Constituent: Chloride Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



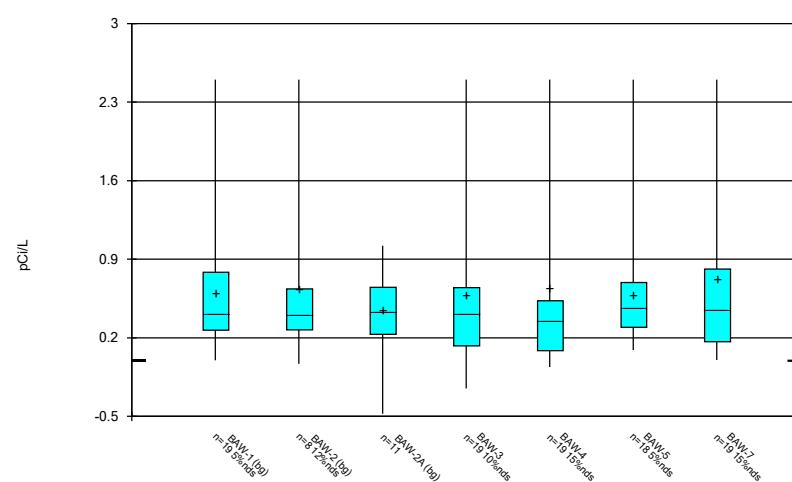
Constituent: Chromium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



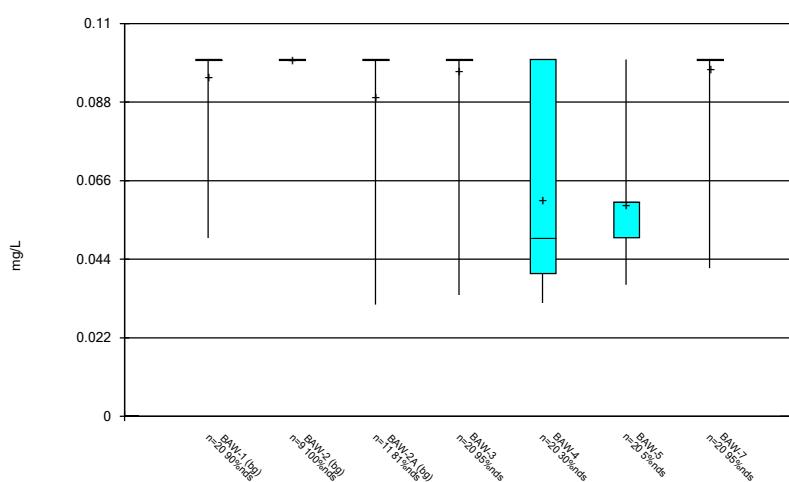
Constituent: Cobalt Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



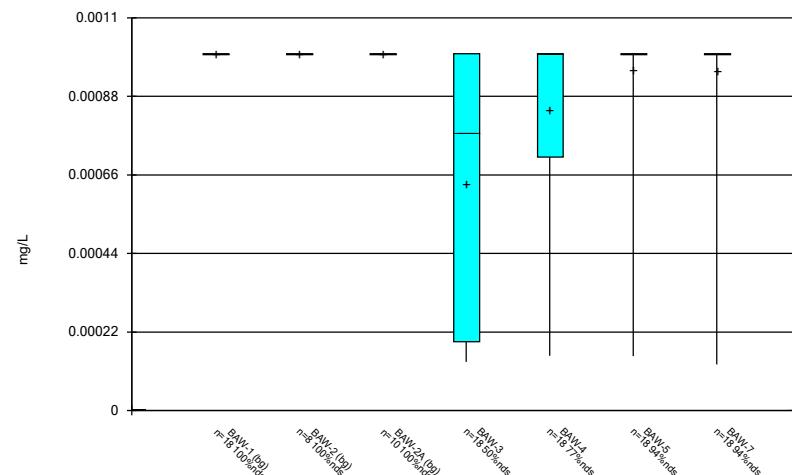
Constituent: Combined Radium 226 + 228 Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



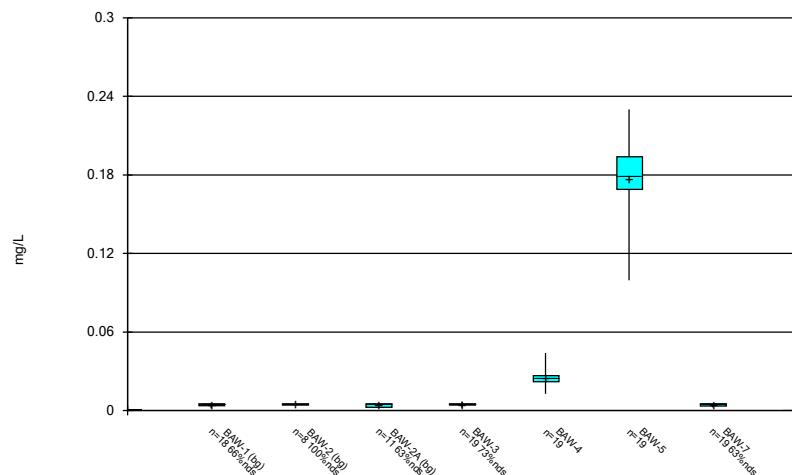
Constituent: Fluoride Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



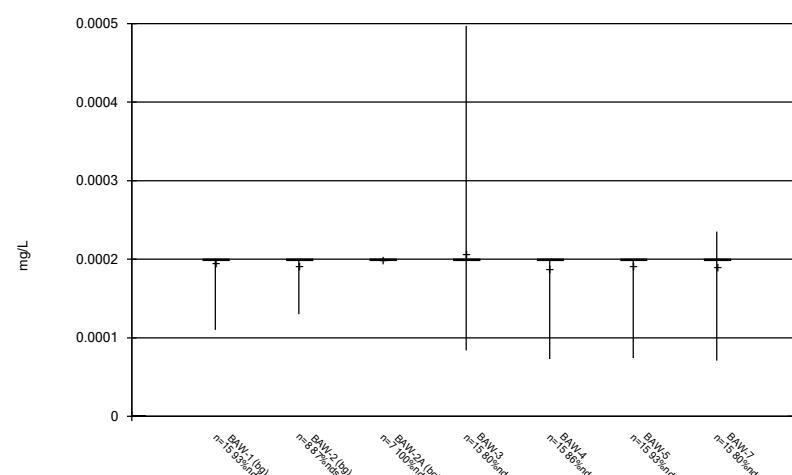
Constituent: Lead Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



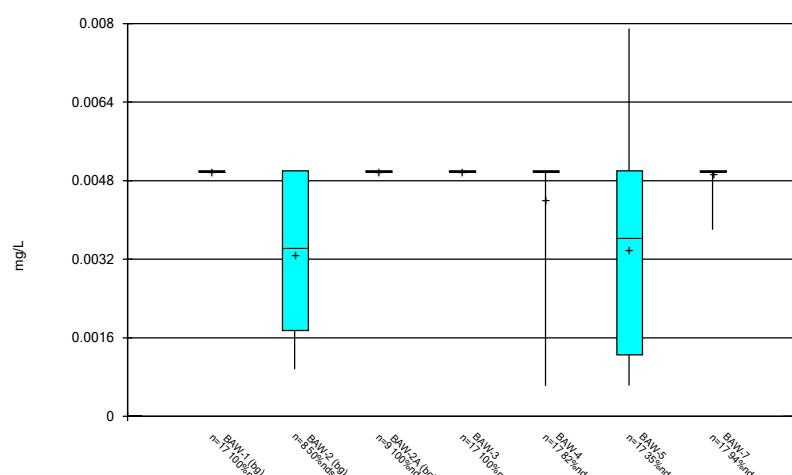
Constituent: Lithium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



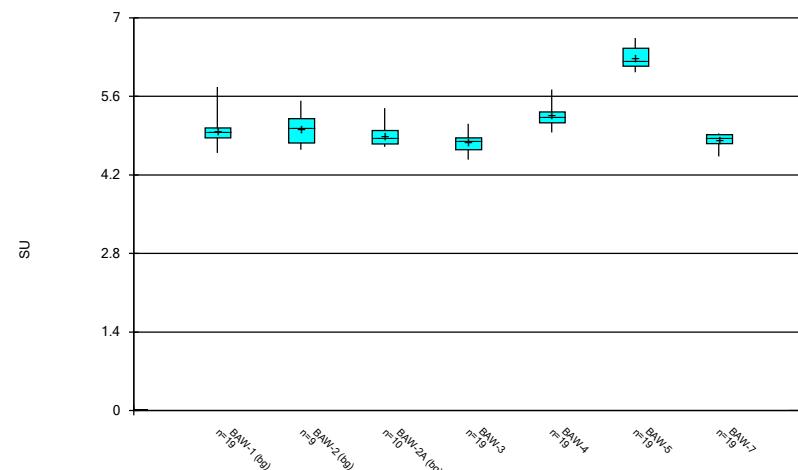
Constituent: Mercury Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



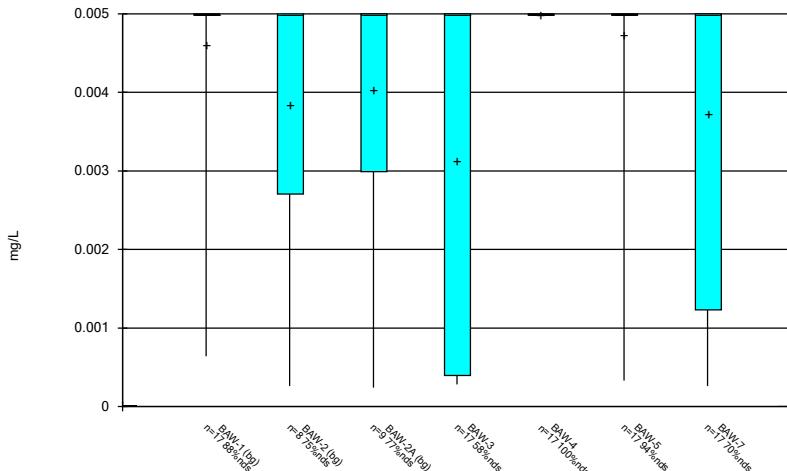
Constituent: Molybdenum Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
 Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



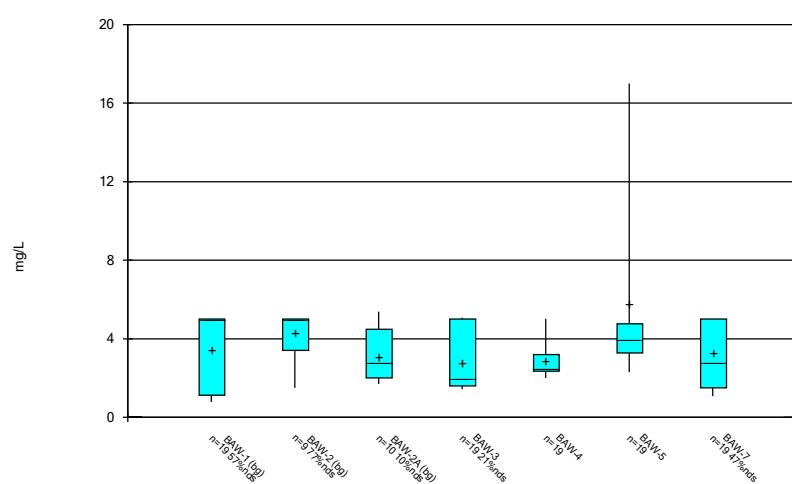
Constituent: pH Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



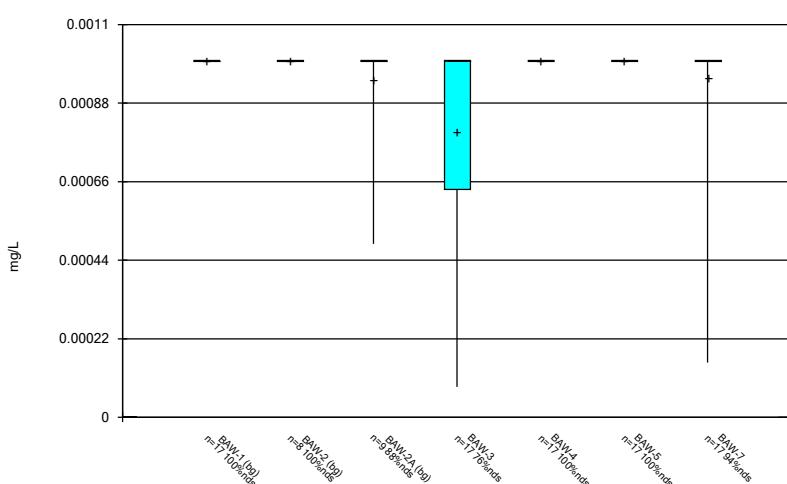
Constituent: Selenium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



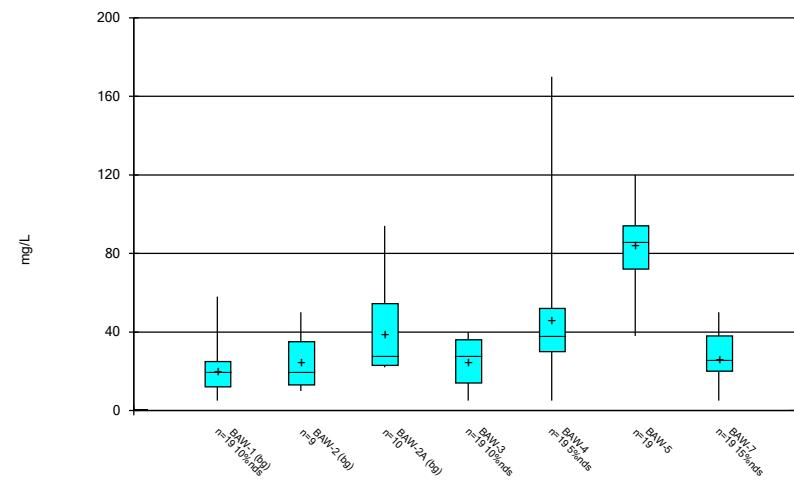
Constituent: Sulfate Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/8/2021 2:49 PM View: Appendix III & IV

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:31 PM

BAW-2 Calcium (mg/L) BAW-1 Lithium (mg/L)

3/23/2016 2.6 (o)

7/12/2016 0.012 (o)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N %NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>	
Boron (mg/L)	BAW-4	0.0928	n/a	10/5/2021	0.168	Yes	40	90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2021	0.272	Yes	40	90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	10/5/2021	0.281	Yes	40	90	n/a	0.001141	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	10/5/2021	8.57	Yes	39	5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	10/6/2021	22.8	Yes	39	5.128	n/a	0.001206	NP Inter (normality) 1 of 2
pH (SU)	BAW-4	5.414	4.519	10/5/2021	5.72	Yes	38	0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.414	4.519	10/6/2021	6.03	Yes	38	0	No	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2021	14.5	Yes	38	50	n/a	0.001271	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	59.67	n/a	10/5/2021	75	Yes	38	5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	59.67	n/a	10/6/2021	114	Yes	38	5.263	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

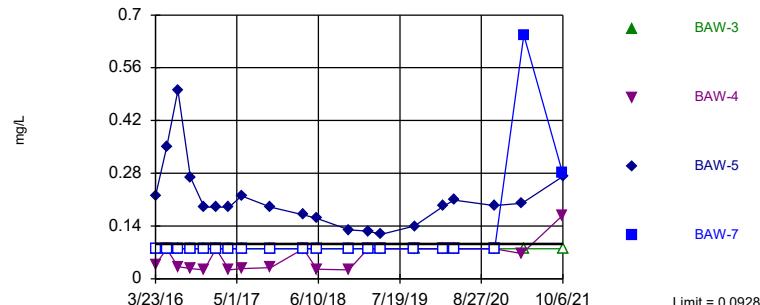
Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:51 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N %NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-3	0.0928	n/a	10/6/2021	0.08ND	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-4	0.0928	n/a	10/5/2021	0.168	Yes	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-5	0.0928	n/a	10/6/2021	0.272	Yes	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Boron (mg/L)	BAW-7	0.0928	n/a	10/5/2021	0.281	Yes	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BAW-3	2.8	n/a	10/6/2021	0.532	No	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-4	2.8	n/a	10/5/2021	8.57	Yes	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-5	2.8	n/a	10/6/2021	22.8	Yes	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Calcium (mg/L)	BAW-7	2.8	n/a	10/5/2021	0.829	No	39 5.128	n/a	0.001206	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-3	16.4	n/a	10/6/2021	6.8	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-4	16.4	n/a	10/5/2021	14.3	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-5	16.4	n/a	10/6/2021	5.44	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Chloride (mg/L)	BAW-7	16.4	n/a	10/5/2021	10.3	No	38 0	n/a	0.001271	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BAW-3	0.1	n/a	10/6/2021	0.1ND	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-4	0.1	n/a	10/5/2021	0.0505J	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-5	0.1	n/a	10/6/2021	0.0725J	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BAW-7	0.1	n/a	10/5/2021	0.1ND	No	40 90	n/a	0.001141	NP Inter (NDs) 1 of 2
pH (SU)	BAW-3	5.414	4.519	10/6/2021	4.63	No	38 0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-4	5.414	4.519	10/5/2021	5.72	Yes	38 0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-5	5.414	4.519	10/6/2021	6.03	Yes	38 0	No	0.0009398	Param Inter 1 of 2
pH (SU)	BAW-7	5.414	4.519	10/5/2021	4.84	No	38 0	No	0.0009398	Param Inter 1 of 2
Sulfate (mg/L)	BAW-3	5.37	n/a	10/6/2021	5.07	No	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-4	5.37	n/a	10/5/2021	5.02	No	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-5	5.37	n/a	10/6/2021	14.5	Yes	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Sulfate (mg/L)	BAW-7	5.37	n/a	10/5/2021	2.55	No	38 50	n/a	0.001271	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	BAW-3	59.67	n/a	10/6/2021	30	No	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-4	59.67	n/a	10/5/2021	75	Yes	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-5	59.67	n/a	10/6/2021	114	Yes	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BAW-7	59.67	n/a	10/5/2021	45	No	38 5.263	sqrt(x)	0.00188	Param Inter 1 of 2

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.

Exceeds Limit: BAW-4, BAW-5, BAW-7

Prediction Limit
Interwell Non-parametric

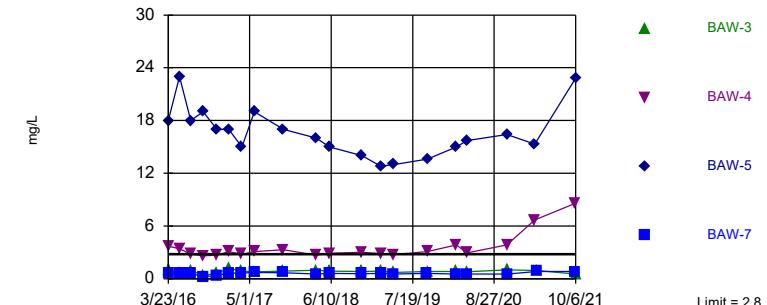


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 40 background values. 90% NDs. Annual per-constituent alpha = 0.009091. Individual comparison alpha = 0.001141 (1 of 2). Comparing 4 points to limit.

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG

Exceeds Limit: BAW-4, BAW-5

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 39 background values. 5.128% NDs. Annual per-constituent alpha = 0.009609. Individual comparison alpha = 0.001206 (1 of 2). Comparing 4 points to limit.

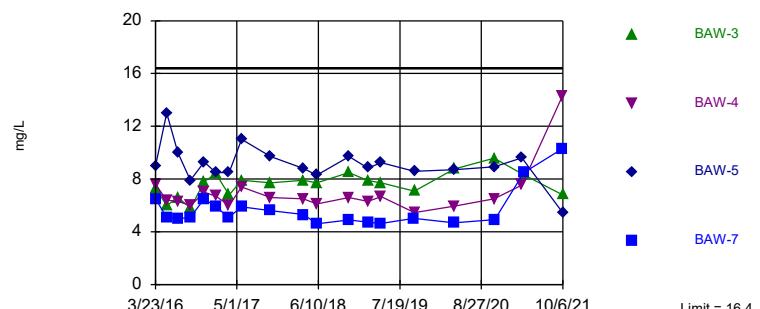
Constituent: Boron Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Calcium Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG

Within Limit

Prediction Limit
Interwell Non-parametric



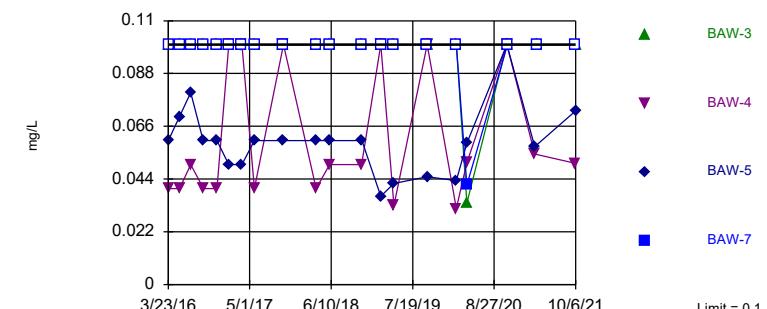
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 38 background values. Annual per-constituent alpha = 0.01013. Individual comparison alpha = 0.001271 (1 of 2). Comparing 4 points to limit.

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 40 background values. 90% NDs. Annual per-constituent alpha = 0.009091. Individual comparison alpha = 0.001141 (1 of 2). Comparing 4 points to limit.

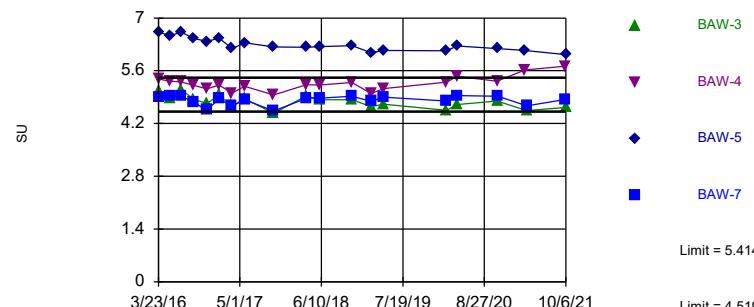
Constituent: Chloride Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Fluoride Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Exceeds Limits: BAW-4, BAW-5

Prediction Limit

Interwell Parametric

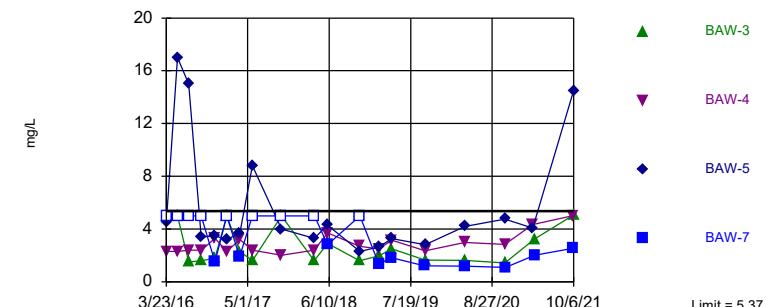


Background Data Summary: Mean=4.966, Std. Dev.=0.2439, n=38. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9192, critical = 0.916. Kappa = 1.836 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009398. Comparing 4 points to limit.

Exceeds Limit: BAW-5

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 38 background values. 50% NDs. Annual per-constituent alpha = 0.01013. Individual comparison alpha = 0.001271 (1 of 2). Comparing 4 points to limit.

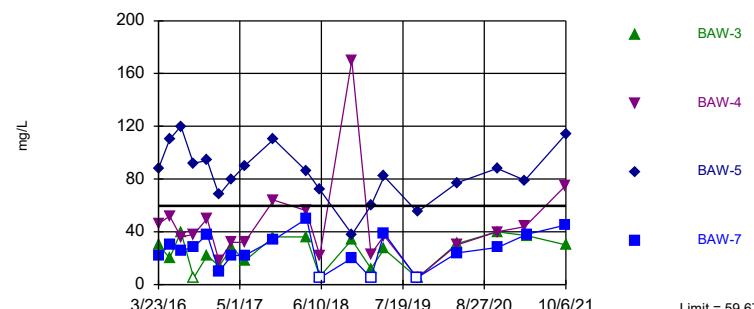
Constituent: pH Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Constituent: Sulfate Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Exceeds Limit: BAW-4, BAW-5

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=4.897, Std. Dev.=1.54, n=38, 5.263% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.916. Kappa = 1.836 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Total Dissolved Solids Analysis Run 12/8/2021 2:50 PM View: Appendix III
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-5	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<0.08	0.22	0.037 (J)	<0.08	<0.08	<0.08	
5/17/2016	<0.08	0.35	<0.08		<0.08		
5/18/2016				<0.08		<0.08	
7/12/2016	<0.08				<0.08		
7/13/2016		0.5	0.032 (J)	<0.08		<0.08	
9/13/2016	<0.08	0.27			<0.08		
9/14/2016			0.027 (J)	<0.08		<0.08	
11/19/2016	<0.08	0.19	0.024 (J)	<0.08	<0.08	<0.08	
1/17/2017	<0.08			<0.08	<0.08	<0.08	
1/18/2017		0.19	<0.08				
3/22/2017	<0.08				<0.08		
3/23/2017		0.19	0.024 (J)	<0.08		<0.08	
5/24/2017	<0.08	0.22	0.027 (J)	<0.08	<0.08	<0.08	
10/16/2017	<0.08	0.19	0.03 (J)	<0.08	<0.08	<0.08	
3/28/2018	<0.08	0.17	<0.08	<0.08			<0.08
3/29/2018					<0.08		
6/2/2018	<0.08	0.16	0.025 (J)	<0.08	<0.08		<0.08
11/8/2018	<0.08		0.024 (J)	<0.08			
11/9/2018		0.13			<0.08		<0.08
2/11/2019	<0.08	0.126	<0.08				
2/12/2019				<0.08	<0.08		<0.08
4/17/2019	<0.08	0.118	<0.08	<0.08			<0.08
4/18/2019					<0.08		
9/27/2019	<0.08				<0.08		<0.08
9/30/2019		0.14	<0.08	<0.08			
2/21/2020	0.0928			<0.08	<0.08		0.0589 (J)
2/22/2020		0.193	<0.08				
4/14/2020	<0.08	0.209	<0.08	<0.08	<0.08		0.0424 (J)
10/30/2020	<0.08	0.194	<0.08	<0.08			0.0495 (J)
11/2/2020					<0.08		
3/17/2021		0.2	0.0673 (J)				
3/26/2021	<0.08			<0.08	0.647		<0.08
10/5/2021	<0.08		0.168		0.281		
10/6/2021		0.272		<0.08			<0.08

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-7	BAW-5	BAW-3	BAW-4	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<0.5	0.65	18	1.1	3.7	2.6 (o)	
5/17/2016	0.84	0.68	23		3.4		
5/18/2016				0.56		1.3	
7/12/2016	0.79	0.62					
7/13/2016			18	0.95	2.8	1.1	
9/13/2016	0.42	0.25	19				
9/14/2016				0.4	2.6	1.1	
11/19/2016	1.2	0.36	17	0.62	2.7	1	
1/17/2017	1.4	0.66		1.2		0.87	
1/18/2017			17		3.1		
3/22/2017	0.95	0.65					
3/23/2017			15	0.87	2.8	0.74	
5/24/2017	1.3	0.72	19	0.81	3.1	0.84	
10/16/2017	0.93	0.7	17	0.86	3.3	0.76	
3/28/2018	1		16	0.97	2.7		2.8
3/29/2018		0.55					
6/2/2018	0.93	0.6	15	0.86	2.9		0.71
11/8/2018	1			0.84	3		
11/9/2018		0.59	14				0.61
2/11/2019	1		12.8		2.88		
2/12/2019		0.608		0.856			0.757
4/17/2019	0.893		13	0.711	2.77		0.755
4/18/2019		0.55					
9/27/2019	0.8	0.598					0.663
9/30/2019			13.6	0.826	3.08		
2/21/2020	1.02	0.552		0.841			0.648
2/22/2020			15		3.86		
4/14/2020	0.887	0.532	15.7	0.811	2.95		0.67
10/30/2020	0.945		16.4	1	3.84		0.672
11/2/2020		0.535					
3/17/2021			15.3		6.69		
3/26/2021	0.965	0.848		0.937			0.644
10/5/2021	0.996	0.829			8.57		
10/6/2021			22.8	0.532			<0.5

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-5	BAW-2A (bg)
3/23/2016	6.5	7.6	7.3	6.5	5.1	9	
5/17/2016	4.9	6.4		5.1		13	
5/18/2016			6		4.2		
7/12/2016	5.3			5			
7/13/2016		6.3	6.6		4.7	10	
9/13/2016	4.8 (F1)			5.1		7.9	
9/14/2016		6	5.8		4.5		
11/19/2016	7.1	7	7.8	6.5	6.1	9.3	
1/17/2017	5.8		8.4	5.9	5.4		
1/18/2017		6.7				8.5	
3/22/2017	4.9			5.1			
3/23/2017		6	6.8		5.1	8.5	
5/24/2017	5.9	7.4	7.9	5.9	5.5	11	
10/16/2017	5.7	6.6	7.7	5.6	6.1	9.7	
3/28/2018	5.7	6.5	7.9			8.8	6.7
3/29/2018				5.3			
6/2/2018	4.7	6.1	7.7	4.6		8.3	5.8
11/8/2018	5.6	6.6	8.5				
11/9/2018				4.9		9.7	7.2
2/11/2019	4.84	6.31				8.84	
2/12/2019			7.89	4.72			8.4
4/17/2019	4.99	6.68	7.71			9.24	8.03
4/18/2019				4.64			
9/27/2019	5.08			5.02			8.37
9/30/2019		5.45	7.07			8.59	
4/14/2020	4.91	5.93	8.75	4.68		8.71	7.57
10/30/2020	5.55	6.49	9.58			8.93	7.59
11/2/2020				4.91			
3/17/2021		7.55				9.6	
3/26/2021	5.92		8.32	8.5			6.21
10/5/2021	6.21	14.3		10.3			
10/6/2021			6.8			5.44	16.4

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-5	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-2A (bg)
3/23/2016	<0.1	0.06 (J)	0.04 (J)	<0.1	<0.1	<0.1	
5/17/2016	<0.1	0.07 (J)	0.04 (J)		<0.1		
5/18/2016				<0.1		<0.1	
7/12/2016	<0.1				<0.1		
7/13/2016		0.08 (J)	0.05 (J)	<0.1		<0.1	
9/13/2016	<0.1	0.06 (J)			<0.1		
9/14/2016			0.04 (J)	<0.1		<0.1	
11/19/2016	<0.1	0.06 (J)	0.04 (J)	<0.1	<0.1	<0.1	
1/17/2017	<0.1				<0.1	<0.1	
1/18/2017		0.05 (J)	<0.1				
3/22/2017	<0.1				<0.1		
3/23/2017		0.05 (J)	<0.1	<0.1		<0.1	
5/24/2017	<0.1	0.06 (J)	0.04 (J)	<0.1	<0.1 (D)	<0.1	
10/16/2017	<0.1	0.06 (J)	<0.1	<0.1	<0.1	<0.1	
3/28/2018	<0.1	0.06 (J)	0.04 (J)	<0.1			<0.1
3/29/2018					<0.1		
6/2/2018	<0.1	0.06 (J)	0.05 (J)	<0.1	<0.1		<0.1
11/8/2018	<0.1		0.05 (J)	<0.1			
11/9/2018		0.06 (J)			<0.1		<0.1
2/11/2019	<0.1	0.0368 (J)	<0.1				
2/12/2019				<0.1	<0.1		<0.1
4/17/2019	<0.1	0.0421 (J)	0.033 (J)	<0.1			<0.1
4/18/2019					<0.1		
9/27/2019	<0.1				<0.1		0.0313 (J)
9/30/2019		0.045 (J)	<0.1	<0.1			
2/21/2020	<0.1			<0.1	<0.1		<0.1
2/22/2020		0.0434 (J)	0.0317 (J)				
4/14/2020	0.0532 (J)	0.059 (J)	0.0508 (J)	0.034 (J)	0.0415 (J)		0.0537 (J)
10/30/2020	<0.1	<0.1	<0.1	<0.1			<0.1
11/2/2020					<0.1		
3/17/2021		0.0575 (J)	0.0544 (J)				
3/26/2021	<0.1			<0.1	<0.1		<0.1
10/5/2021	0.0499 (J)		0.0505 (J)		<0.1		
10/6/2021		0.0725 (J)		<0.1			<0.1

Prediction Limit

Constituent: pH (SU) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-5	BAW-2A (bg)
3/23/2016	5.12	5.38	5.05	4.89	5.52	6.64	
5/17/2016	5.23	5.32		4.92		6.52	
5/18/2016			4.86		5.24		
7/12/2016	5.77			4.93			
7/13/2016		5.31	5.11		5.17	6.63	
9/13/2016	4.98			4.76		6.46	
9/14/2016		5.21	4.84		5.04		
11/19/2016	4.82	5.12	4.74	4.56	4.88	6.38	
1/17/2017	5.04		4.95	4.86	5.04		
1/18/2017		5.22				6.47	
3/22/2017	4.73			4.66			
3/23/2017		5.01	4.66		4.66	6.19	
5/24/2017	5.01	5.19	4.86	4.83	4.93	6.34	
10/16/2017	4.59	4.96	4.47	4.53	4.65	6.23	
3/28/2018	4.87	5.23	4.93			6.22	5.39
3/29/2018				4.87			
6/2/2018	4.92	5.22	4.83	4.87		6.24	5.06
11/8/2018	5	5.29	4.83				
11/9/2018				4.92		6.27	4.92
2/11/2019	4.7	5				6.08	
2/12/2019			4.65	4.79			4.86
4/17/2019	4.9	5.13	4.71			6.14	4.79
4/18/2019				4.9			
2/21/2020	4.86		4.55	4.8			4.73
2/22/2020		5.3				6.13	
4/14/2020	5.23	5.45	4.7	4.94		6.26	4.87
10/30/2020	5	5.32	4.8			6.19	4.87
11/2/2020				4.92			
3/17/2021		5.62				6.14	
3/26/2021	4.86		4.54	4.67			4.7
10/5/2021	5	5.72		4.84			
10/6/2021			4.63			6.03	4.77

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-5	BAW-2A (bg)
3/23/2016	<5	2.3 (J)	<5	<5	<5	4.5 (J)	
5/17/2016	<5	2.3 (J)		<5		17	
5/18/2016			<5		<5		
7/12/2016	<5			<5			
7/13/2016		2.4 (J)	1.5 (J)		<5	15	
9/13/2016	<5			<5		3.4 (J)	
9/14/2016		2.4 (J)	1.6 (J)		<5		
11/19/2016	<5	3.3 (J)	1.8 (J)	1.5 (J)	<5	3.5 (J)	
1/17/2017	<5		<5	<5	<5		
1/18/2017		2.3 (J)				3.2 (J)	
3/22/2017	<5			1.9 (J)			
3/23/2017		3.2 (J)	2.3 (J)		1.8 (J)	3.7 (J)	
5/24/2017	<5	2.4 (J)	1.6 (J)	<5	1.5 (J)	8.8	
10/16/2017	<5	2 (J)	<5	<5	<5	4 (J)	
3/28/2018	<5	2.4 (J)	1.6 (J)			3.3 (J)	1.7 (J)
3/29/2018				<5			
6/2/2018	1.9 (J)	3.7 (J)	2.9 (J)	2.8 (J)		4.3 (J)	3 (J)
11/8/2018	<5	2.7 (J)	1.6 (J)				
11/9/2018				<5		2.3 (J)	<5
2/11/2019	0.774 (J)	2.5				2.64	
2/12/2019			1.97	1.35			1.97
4/17/2019	1.43	3.15	2.5			3.27	2.82
4/18/2019				1.82			
9/27/2019	1.03			1.22			2.19
9/30/2019		2.34	1.64			2.82	
4/14/2020	0.928 (J)	2.99	1.62	1.18		4.2	2.71
10/30/2020	0.91 (J)	2.84	1.44			4.76	3.97
11/2/2020				1.08			
3/17/2021		4.35				4.07	
3/26/2021	1.49		3.25	2			2.04
10/5/2021	1.13	5.02		2.55			
10/6/2021			5.07			14.5	5.37

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/8/2021 2:51 PM View: Appendix III

Plant Daniel Client: Southern Company Data: Bottom Ash CCR

	BAW-1 (bg)	BAW-4	BAW-3	BAW-7	BAW-2 (bg)	BAW-5	BAW-2A (bg)
3/23/2016	20	46	30	22	30	88	
5/17/2016	24	52		30		110	
5/18/2016			20		20		
7/12/2016	24			26			
7/13/2016		36	40		40	120	
9/13/2016	18			28		92	
9/14/2016		38	<10		10		
11/19/2016	20	50	22	38	28	94	
1/17/2017	<10		14	10	14		
1/18/2017		18				68	
3/22/2017	12			22			
3/23/2017		32	28		16	80	
5/24/2017	16 (D)	32	18	22	12	90	
10/16/2017	58	64	36	34	50	110	
3/28/2018	18	56	36			86	30
3/29/2018				50			
6/2/2018	6	22	6	<10		72	26
11/8/2018	12	170	34				
11/9/2018				20		38	94
2/11/2019	<10	23				60	
2/12/2019			12	<10			22
4/17/2019	16	37	27			82	22
4/18/2019				39			
9/27/2019	26			<10			25
9/30/2019		<10	<10			55	
4/14/2020	25	30	31	24		77	38
10/30/2020	34	40	40			88	48
11/2/2020				28			
3/17/2021		44				79	
3/26/2021	24		37	38			24
10/5/2021	26	75		45			
10/6/2021			30			114	61

FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 4:00 PM

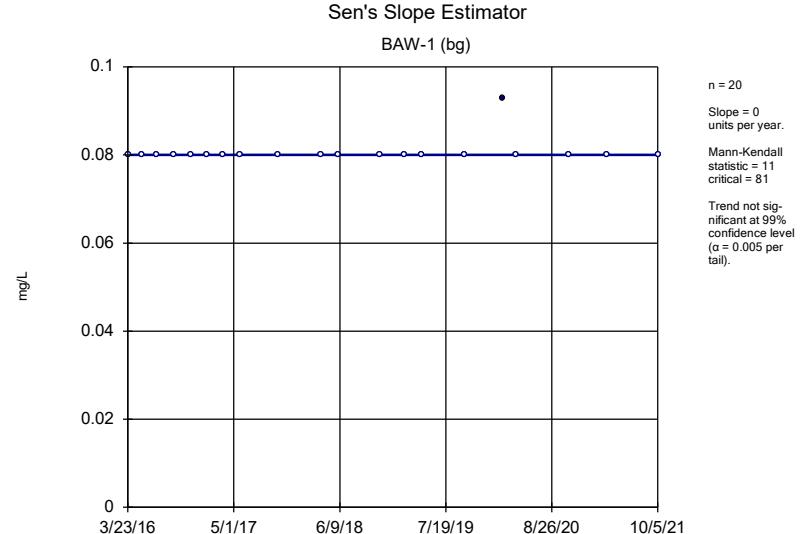
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09326	-115	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.7222	-88	-74	Yes	19	57.89	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 4:00 PM

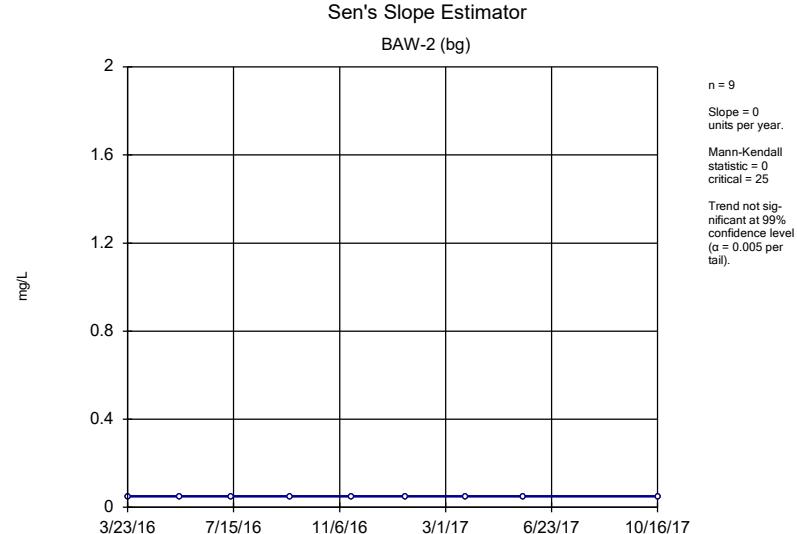
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BAW-1 (bg)	0	11	81	No	20	95	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-2A (bg)	0	-13	-34	No	11	72.73	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-4	0.007548	54	81	No	20	45	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-5	-0.01793	-41	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	BAW-7	0	35	81	No	20	90	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-1 (bg)	0.01739	26	81	No	20	5	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2 (bg)	-0.4143	-23	-21	Yes	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-2A (bg)	-0.05714	-27	-34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-4	0.1265	55	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BAW-5	-0.7607	-66	-81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	BAW-1 (bg)	-0.02604	-32	-74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2 (bg)	-0.5393	-29	-25	Yes	9	0	n/a	n/a	0.01	NP
pH (SU)	BAW-2A (bg)	-0.1017	-28	-30	No	10	0	n/a	n/a	0.01	NP
pH (SU)	BAW-4	0.03323	35	74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	BAW-5	-0.09326	-115	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-1 (bg)	-0.7222	-88	-74	Yes	19	57.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-2A (bg)	0.3537	11	30	No	10	10	n/a	n/a	0.01	NP
Sulfate (mg/L)	BAW-5	-0.0955	-17	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-1 (bg)	0.6772	22	74	No	19	10.53	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2 (bg)	-5.236	-4	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-2A (bg)	3.904	6	30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-4	0	0	74	No	19	5.263	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	BAW-5	-4.183	-43	-74	No	19	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.



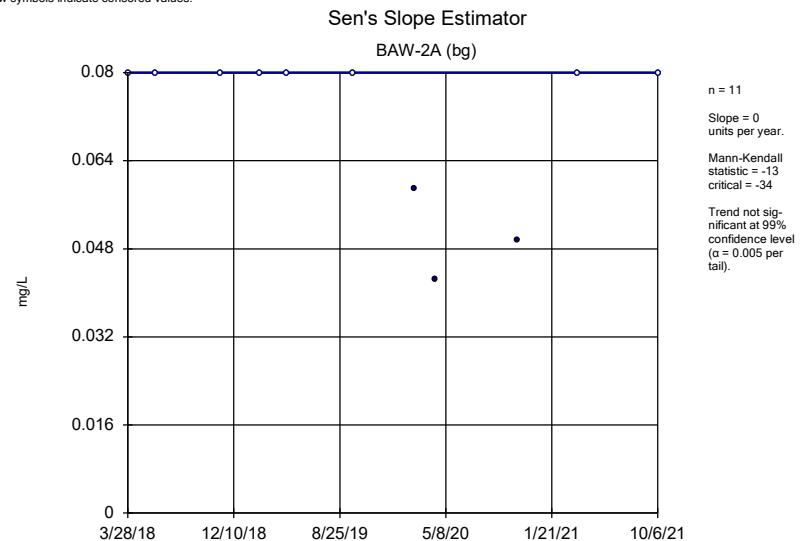
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG
Hollow symbols indicate censored values.



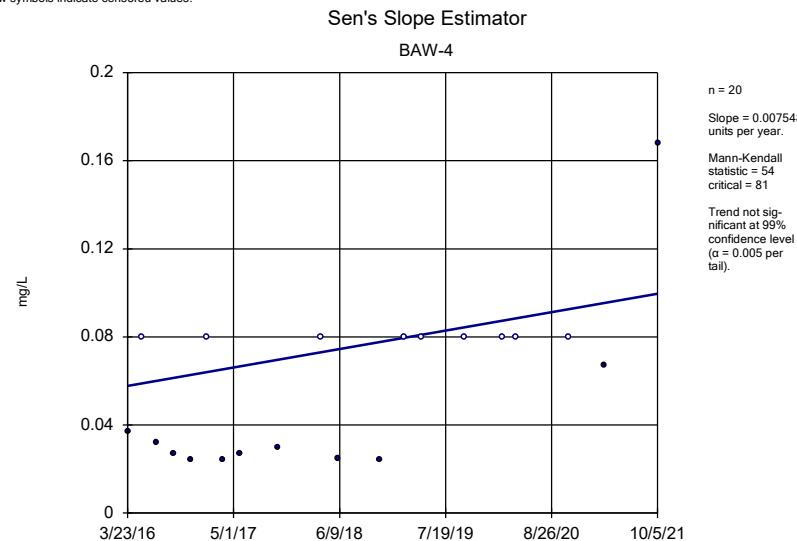
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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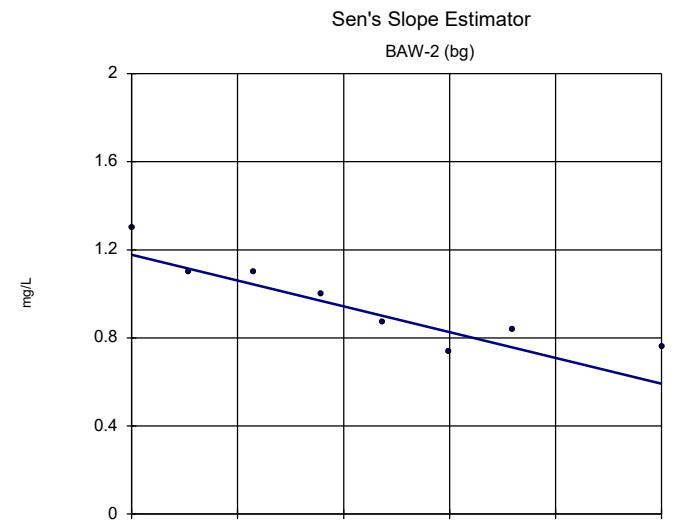
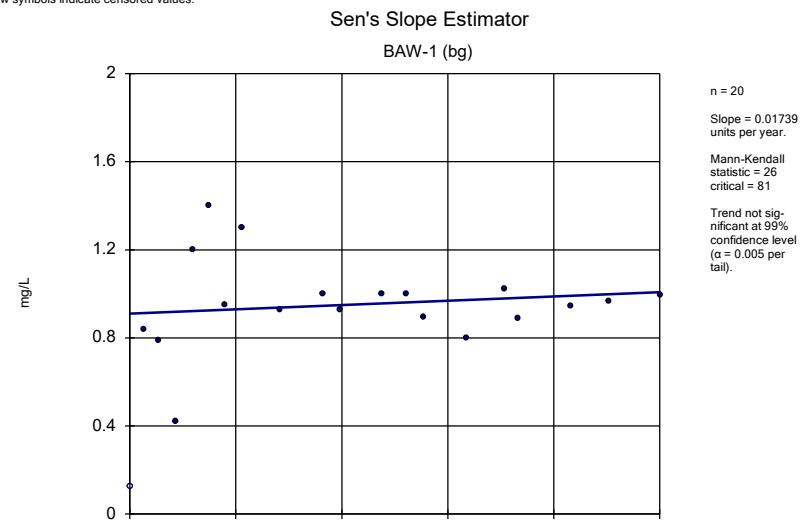
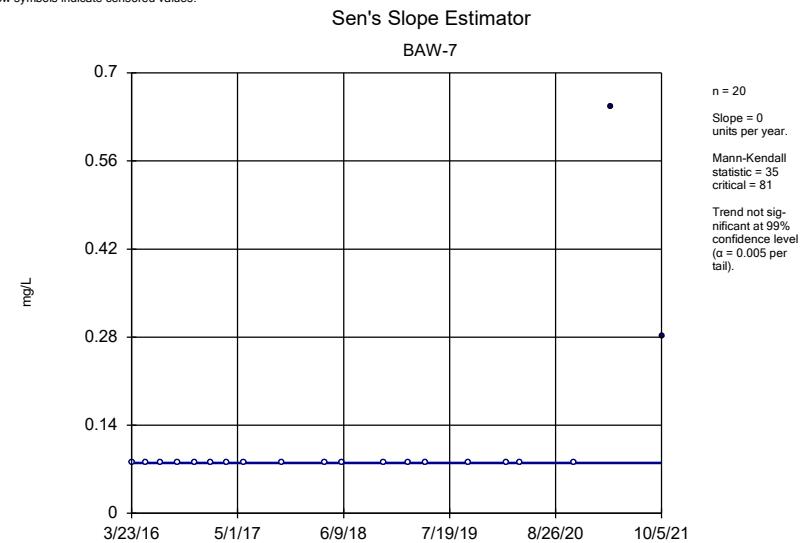
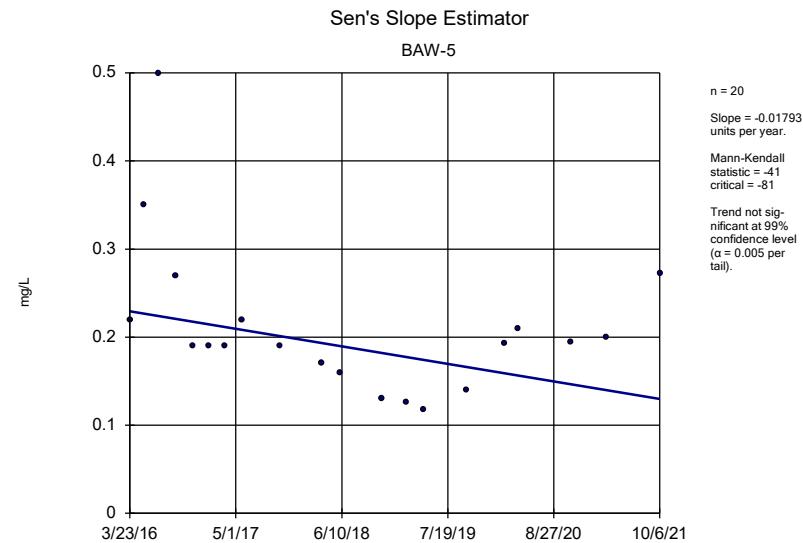


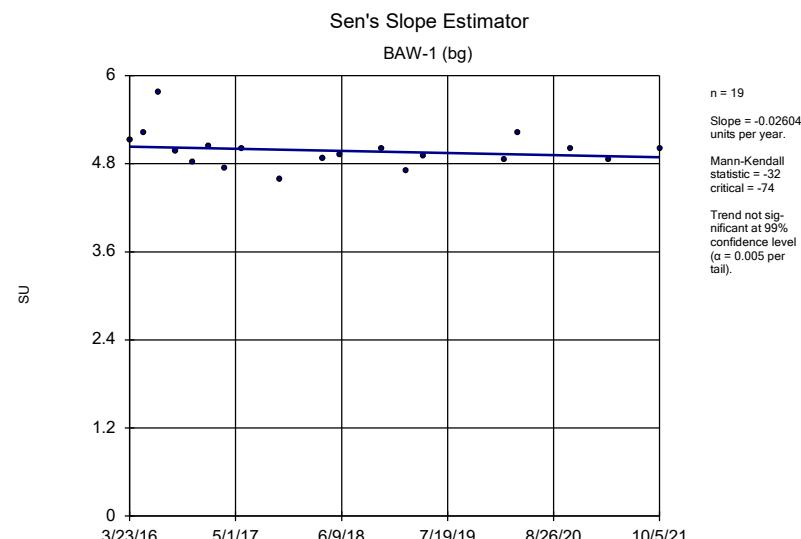
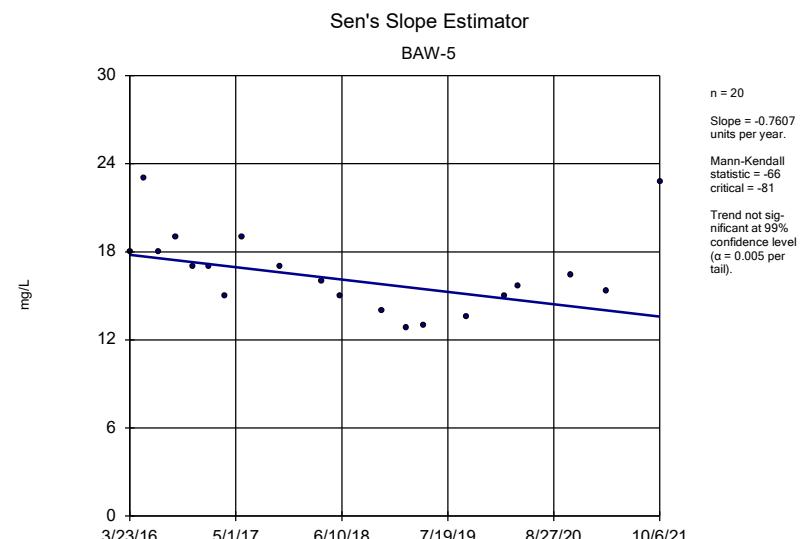
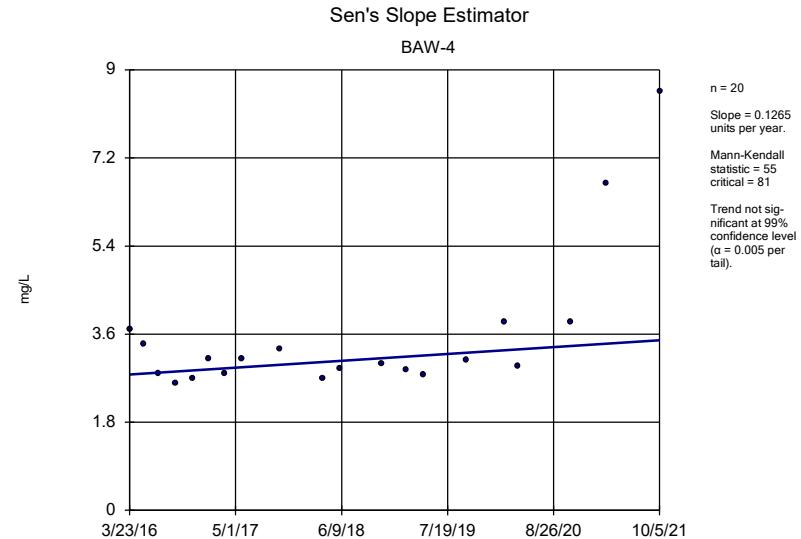
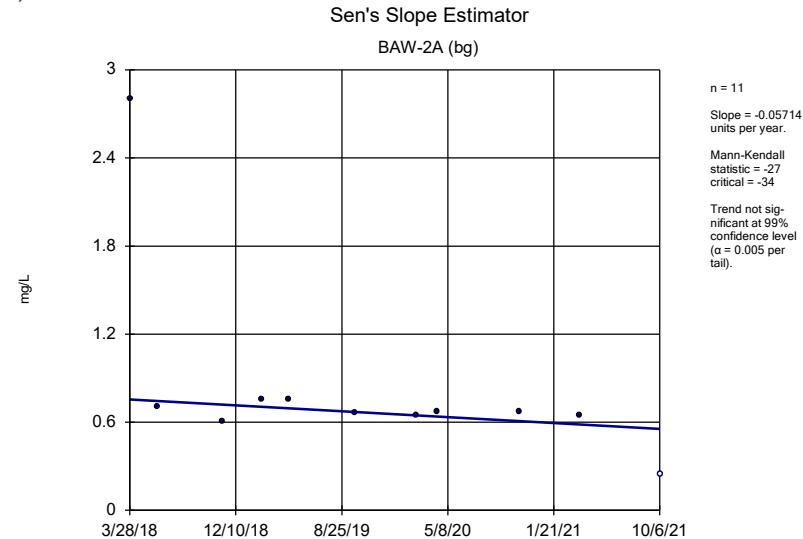
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

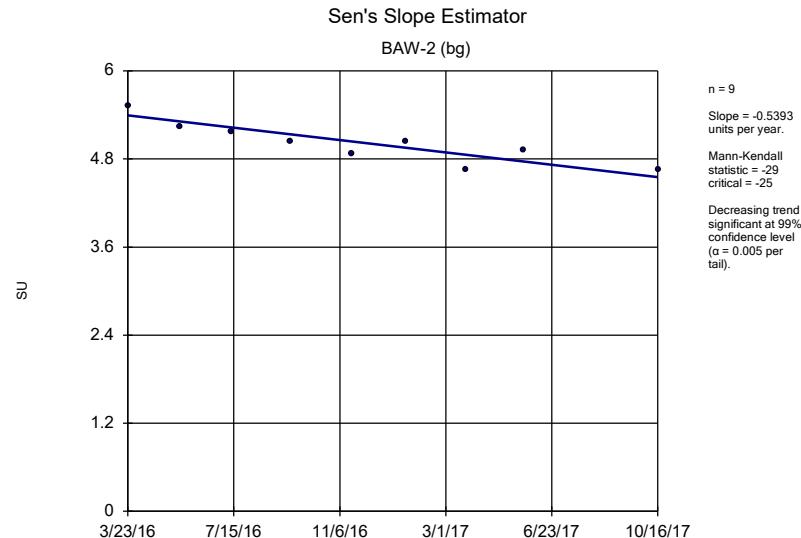
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Hollow symbols indicate censored values.



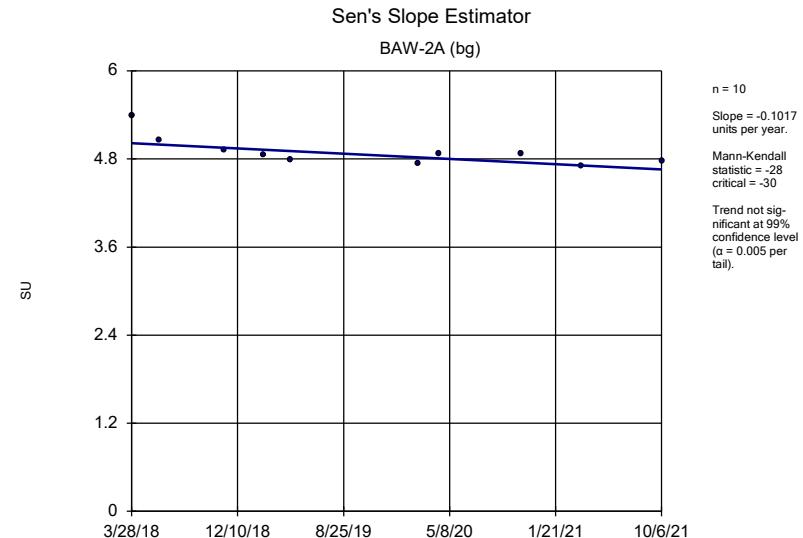
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



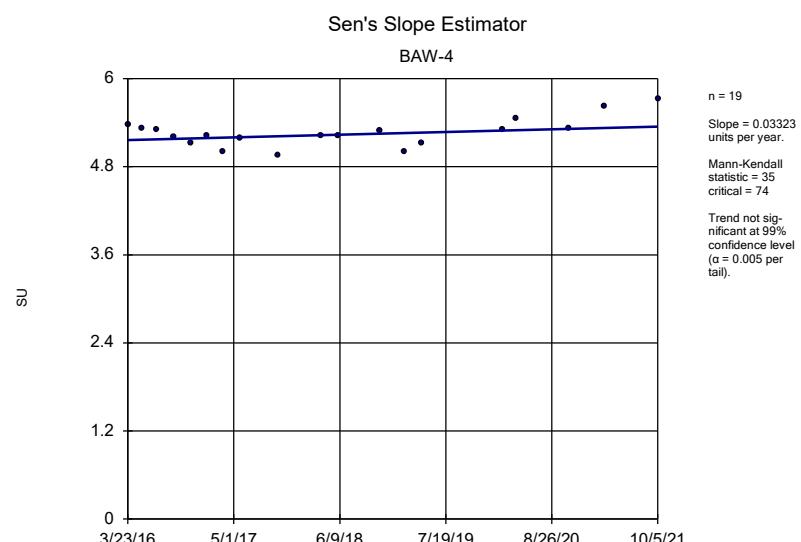




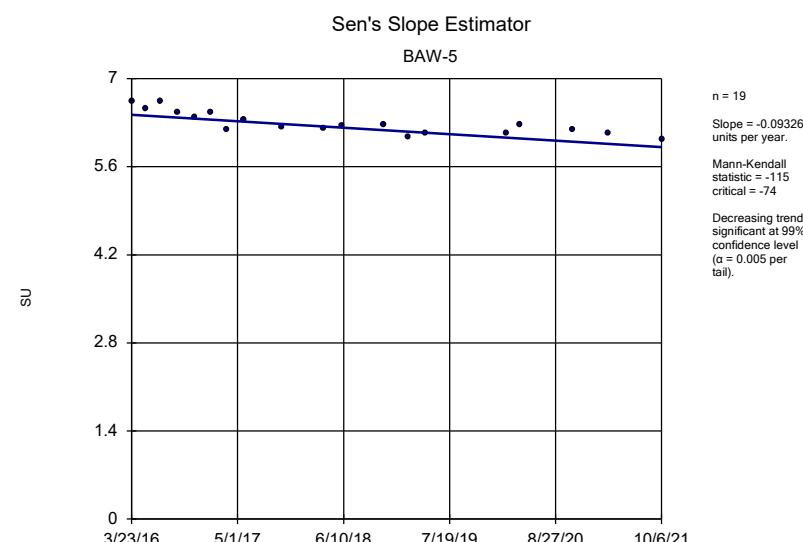
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: pH Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

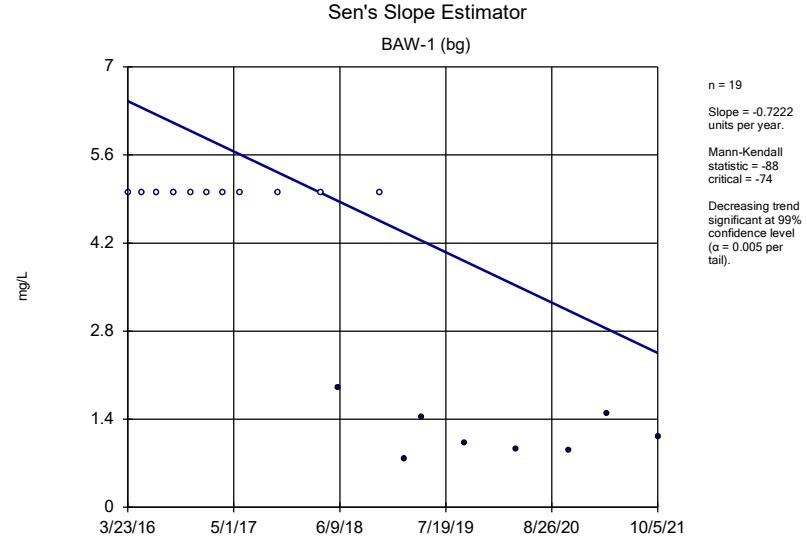


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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



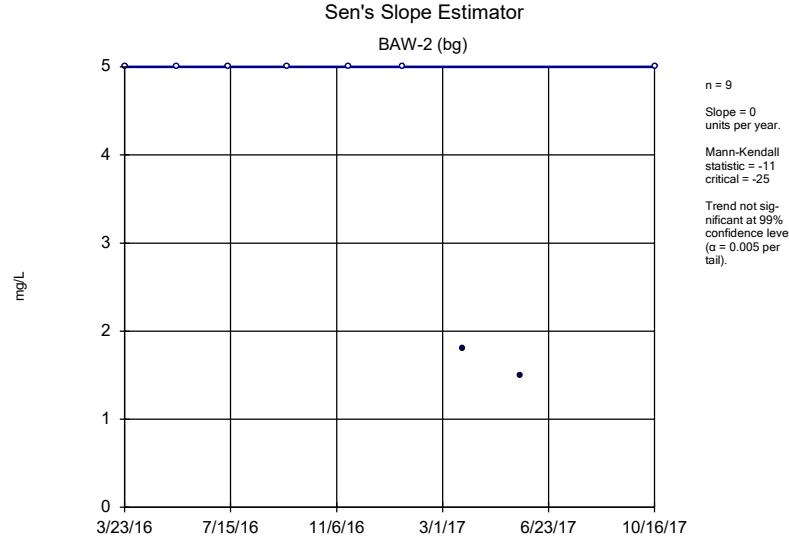
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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Hollow symbols indicate censored values.



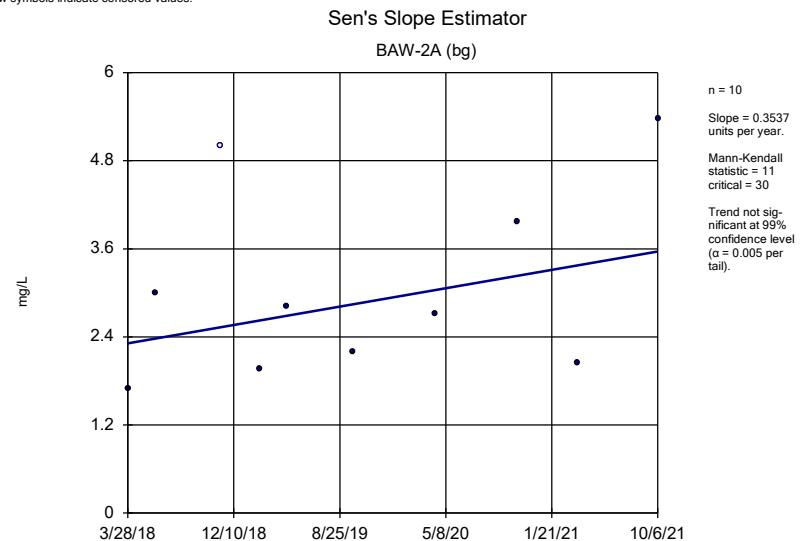
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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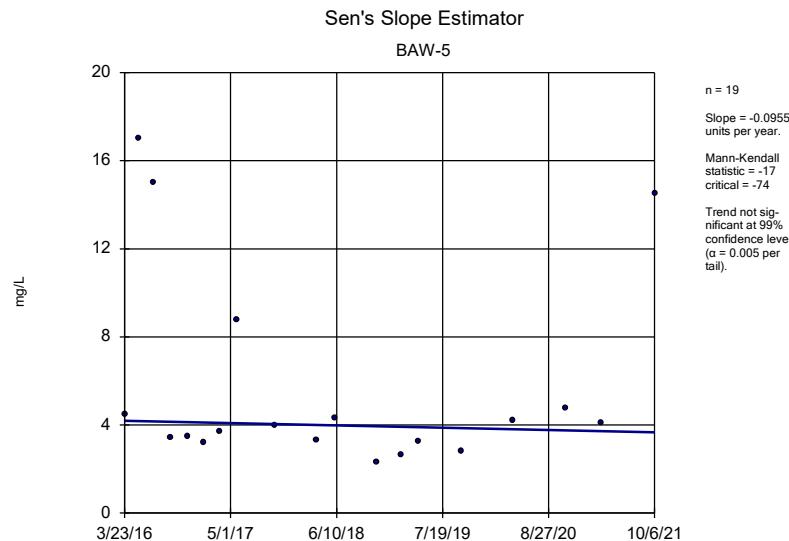
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

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Hollow symbols indicate censored values.

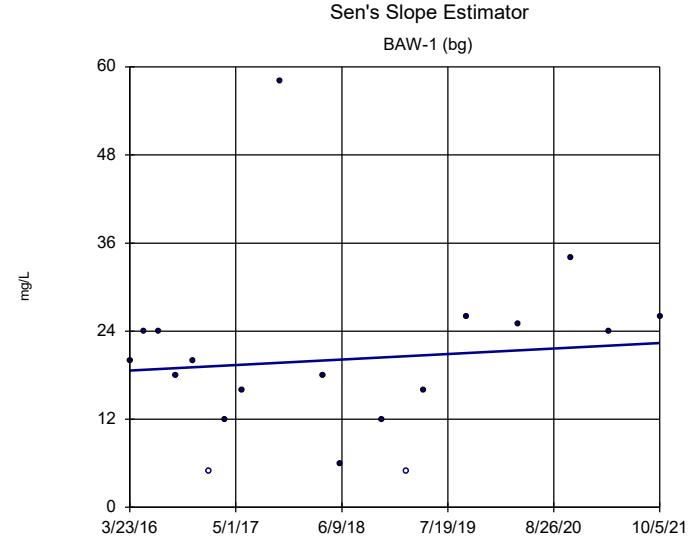


Constituent: Sulfate Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

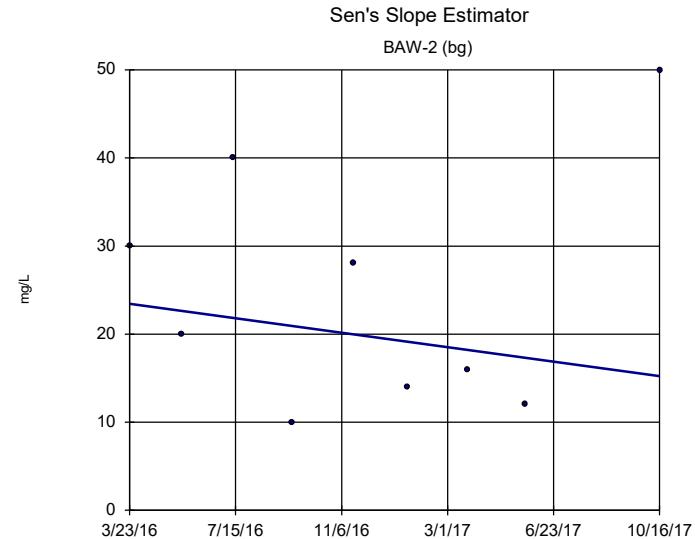
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting, UG



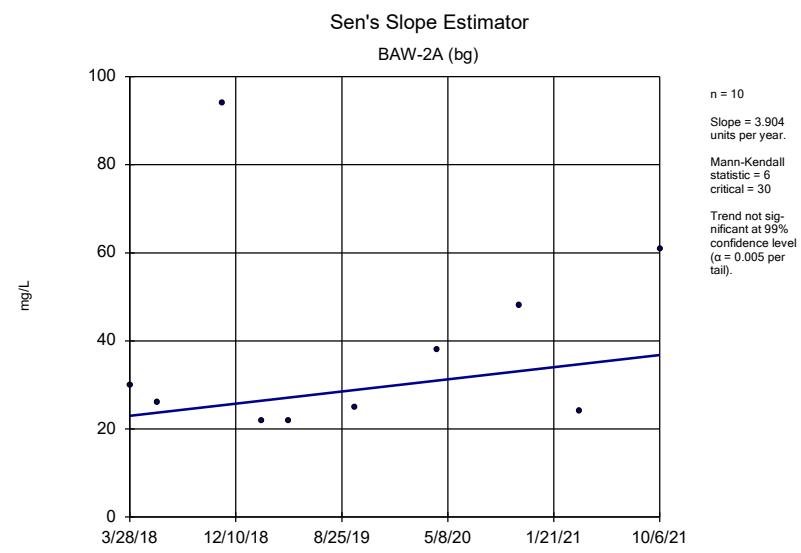
Constituent: Sulfate Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



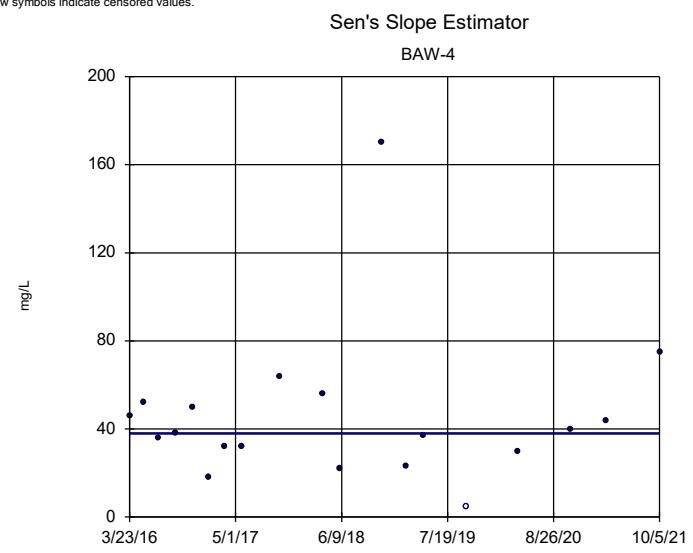
Constituent: Total Dissolved Solids Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



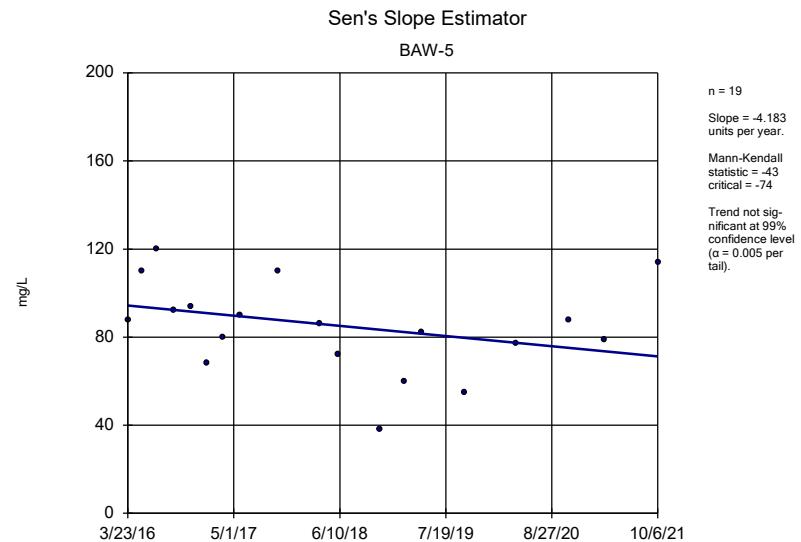
Constituent: Total Dissolved Solids Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 3:59 PM View: Appendix III Trend Test
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

FIGURE F.

Upper Tolerance Limit

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/8/2021, 2:45 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg_N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.002	n/a	n/a	n/a	32	96.88	n/a	0.1937	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.001	n/a	n/a	n/a	38	100	n/a	0.1424	NP Inter(NDs)
Barium (mg/L)	n/a	0.04182	n/a	n/a	n/a	38	2.632	x^2	0.05	Inter
Beryllium (mg/L)	n/a	0.001	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	38	97.37	n/a	0.1424	NP Inter(NDs)
Chromium (mg/L)	n/a	0.00286	n/a	n/a	n/a	36	88.89	n/a	0.1578	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.00143	n/a	n/a	n/a	38	7.895	n/a	0.1424	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	2.5	n/a	n/a	n/a	38	5.263	n/a	0.1424	NP Inter(normality)
Fluoride (mg/L)	n/a	0.1	n/a	n/a	n/a	40	90	n/a	0.1285	NP Inter(NDs)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	36	100	n/a	0.1578	NP Inter(NDs)
Lithium (mg/L)	n/a	0.00505	n/a	n/a	n/a	37	72.97	n/a	0.1499	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	30	93.33	n/a	0.2146	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.005	n/a	n/a	n/a	34	88.24	n/a	0.1748	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	34	82.35	n/a	0.1748	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)

FIGURE G.

PLANT DANIEL BOTTOM ASH GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.002	0.006
Arsenic, Total (mg/L)	0.01		0.001	0.01
Barium, Total (mg/L)	2		0.042	2
Beryllium, Total (mg/L)	0.004		0.001	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.0029	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0014	0.006
Combined Radium, Total (pCi/L)	5		2.5	5
Fluoride, Total (mg/L)	4		0.1	4
Lead, Total (mg/L)	0.015		0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0051	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.005	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

*MCL = Maximum Contaminant Level

*CCR = Coal Combustion Residuals

*GWPS = Groundwater Protection Standard

FIGURE H.

Confidence Interval - Significant Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 12:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BAW-5	0.1944	0.1598	0.04	Yes	19	0	No	0.01	Param.

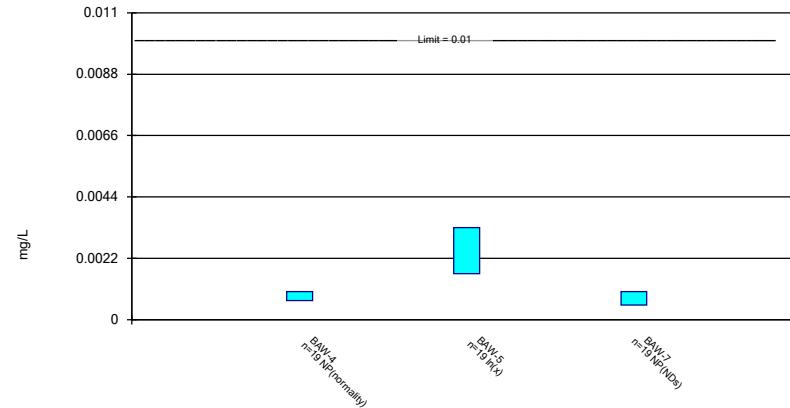
Confidence Interval - All Results

Plant Daniel Client: Southern Company Data: Bottom Ash CCR Printed 12/13/2021, 12:18 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BAW-4	0.001	0.00068	0.01	No	19	21.05	No	0.01	NP (normality)
Arsenic (mg/L)	BAW-5	0.003304	0.001651	0.01	No	19	0	In(x)	0.01	Param.
Arsenic (mg/L)	BAW-7	0.001	0.00052	0.01	No	19	89.47	No	0.01	NP (NDs)
Barium (mg/L)	BAW-3	0.02924	0.0213	2	No	19	0	No	0.01	Param.
Barium (mg/L)	BAW-4	0.0116	0.0087	2	No	19	0	No	0.01	NP (normality)
Barium (mg/L)	BAW-5	0.04586	0.04086	2	No	19	0	No	0.01	Param.
Barium (mg/L)	BAW-7	0.013	0.011	2	No	19	0	No	0.01	NP (normality)
Beryllium (mg/L)	BAW-7	0.001	0.000185	0.004	No	17	94.12	No	0.01	NP (NDs)
Cadmium (mg/L)	BAW-3	0.0009147	0.0006502	0.005	No	19	5.263	No	0.01	Param.
Cadmium (mg/L)	BAW-5	0.001	0.000155	0.005	No	19	94.74	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-3	0.003	0.00165	0.1	No	18	88.89	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-4	0.002	0.0015	0.1	No	18	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-5	0.0024	0.0012	0.1	No	18	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BAW-7	0.00206	0.002	0.1	No	18	94.44	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-3	0.00616	0.004983	0.006	No	19	0	No	0.01	Param.
Cobalt (mg/L)	BAW-4	0.0012	0.00094	0.006	No	19	0	No	0.01	NP (normality)
Cobalt (mg/L)	BAW-5	0.000802	0.00042	0.006	No	19	89.47	No	0.01	NP (NDs)
Cobalt (mg/L)	BAW-7	0.0009471	0.000759	0.006	No	19	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-3	0.78	0.0761	5	No	19	10.53	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BAW-4	0.4225	0.05825	5	No	19	15.79	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-5	0.7366	0.2896	5	No	18	5.556	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BAW-7	0.5004	0.1658	5	No	19	15.79	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BAW-3	0.1	0.034	4	No	20	95	No	0.01	NP (NDs)
Fluoride (mg/L)	BAW-4	0.1	0.04	4	No	20	30	No	0.01	NP (normality)
Fluoride (mg/L)	BAW-5	0.06736	0.05127	4	No	20	5	No	0.01	Param.
Fluoride (mg/L)	BAW-7	0.1	0.0415	4	No	20	95	No	0.01	NP (NDs)
Lead (mg/L)	BAW-3	0.001	0.00015	0.015	No	18	50	No	0.01	NP (normality)
Lead (mg/L)	BAW-4	0.001	0.00042	0.015	No	18	77.78	No	0.01	NP (NDs)
Lead (mg/L)	BAW-5	0.001	0.000152	0.015	No	18	94.44	No	0.01	NP (NDs)
Lead (mg/L)	BAW-7	0.001	0.000129	0.015	No	18	94.44	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-3	0.00687	0.0024	0.04	No	19	73.68	No	0.01	NP (NDs)
Lithium (mg/L)	BAW-4	0.0267	0.0211	0.04	No	19	0	No	0.01	NP (normality)
Lithium (mg/L)	BAW-5	0.1944	0.1598	0.04	Yes	19	0	No	0.01	Param.
Lithium (mg/L)	BAW-7	0.005	0.0029	0.04	No	19	63.16	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-3	0.000497	0.00013	0.002	No	15	80	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-4	0.0002	0.00013	0.002	No	15	86.67	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-5	0.0002	0.000074	0.002	No	15	93.33	No	0.01	NP (NDs)
Mercury (mg/L)	BAW-7	0.000235	0.000151	0.002	No	15	80	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-4	0.005	0.0032	0.1	No	17	82.35	No	0.01	NP (NDs)
Molybdenum (mg/L)	BAW-5	0.003674	0.001137	0.1	No	17	35.29	No	0.01	Param.
Molybdenum (mg/L)	BAW-7	0.005	0.0038	0.1	No	17	94.12	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-3	0.005	0.00038	0.05	No	17	58.82	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-5	0.005	0.00033	0.05	No	17	94.12	No	0.01	NP (NDs)
Selenium (mg/L)	BAW-7	0.005	0.00036	0.05	No	17	70.59	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-3	0.001	0.000276	0.002	No	17	76.47	No	0.01	NP (NDs)
Thallium (mg/L)	BAW-7	0.001	0.000153	0.002	No	17	94.12	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

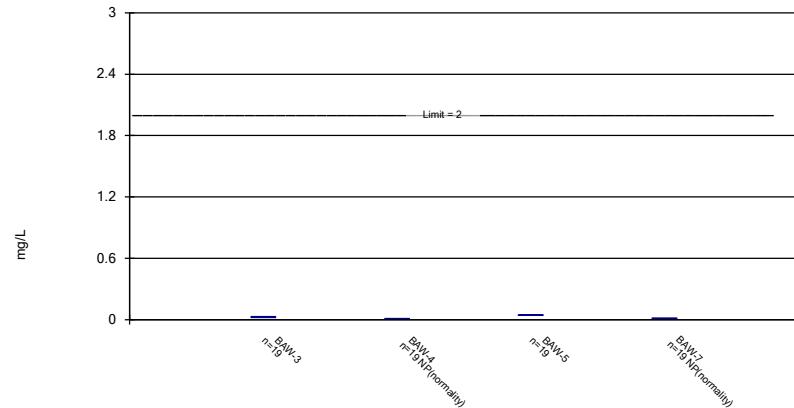
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Constituent: Arsenic Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

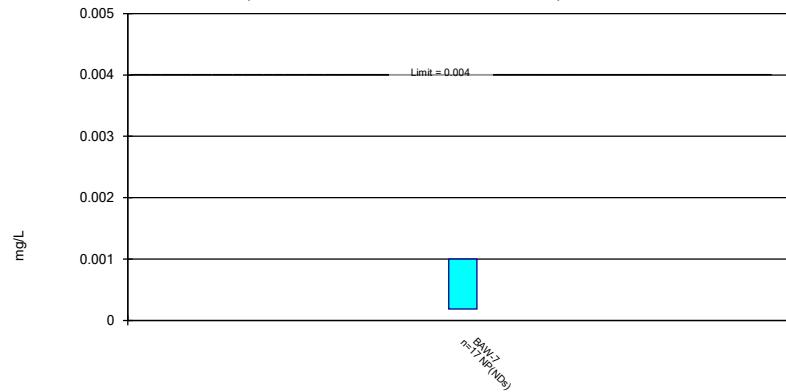
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Constituent: Barium Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

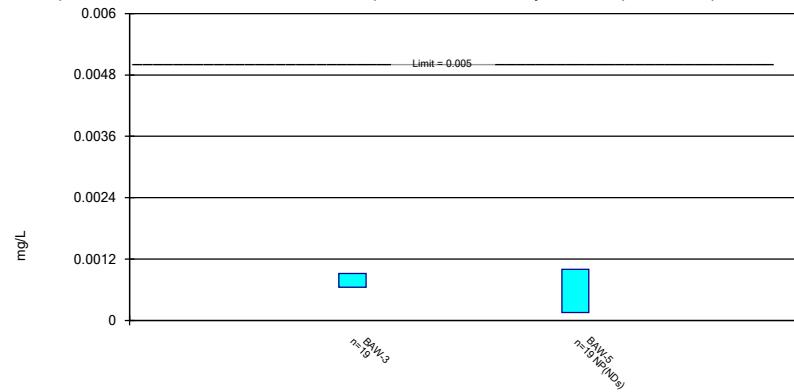
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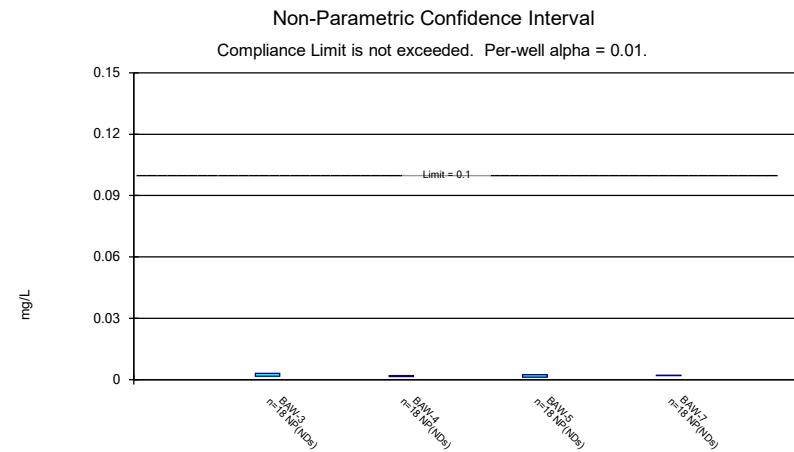
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Parametric and Non-Parametric (NP) Confidence Interval

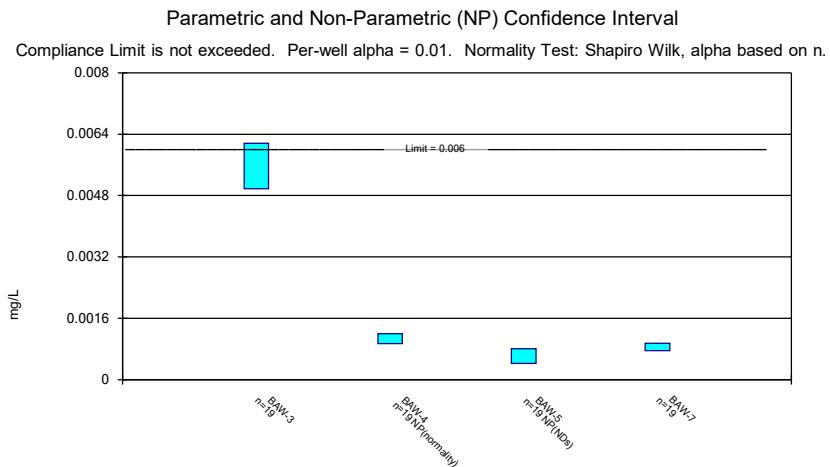
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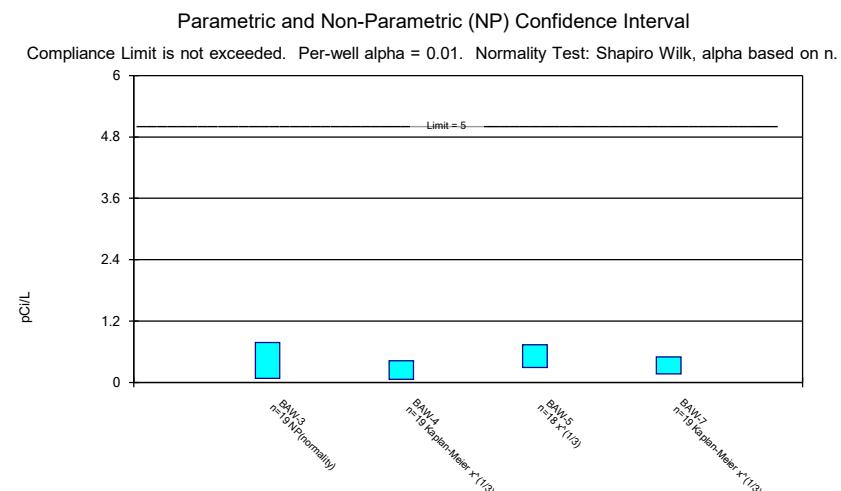
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



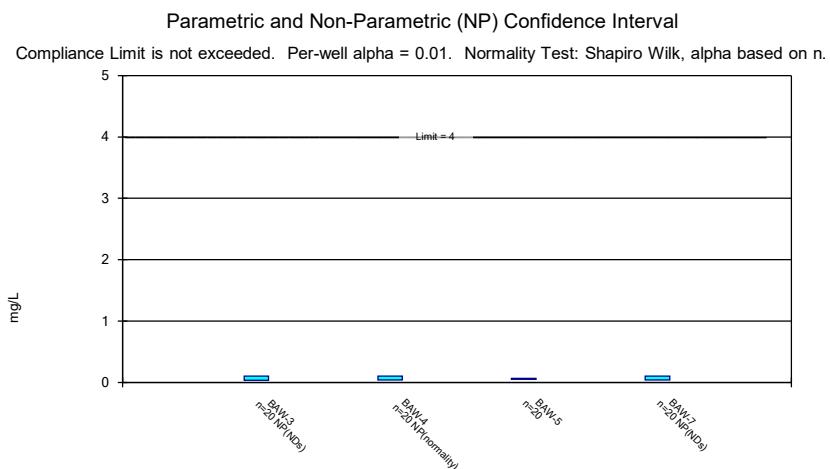
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



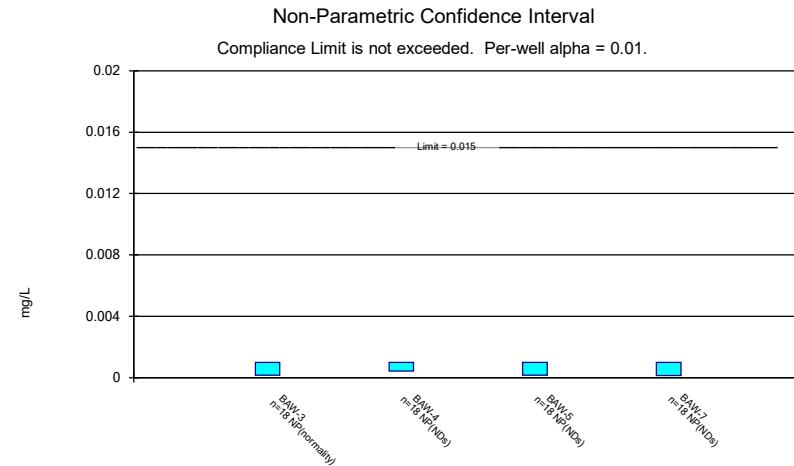
Constituent: Cobalt Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



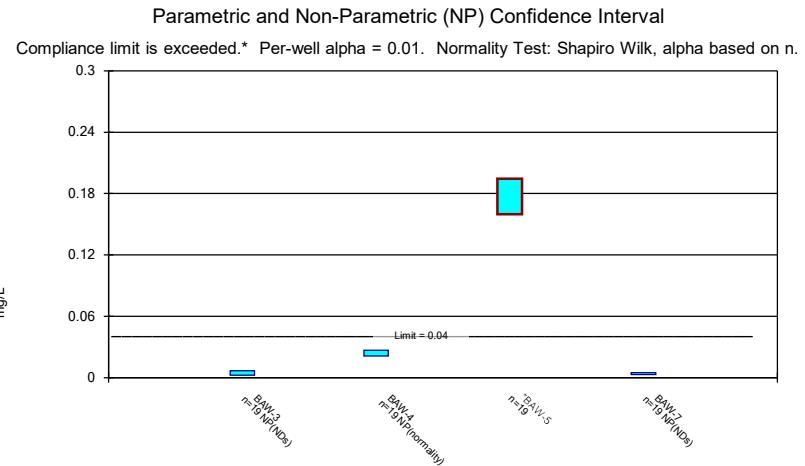
Constituent: Combined Radium 226 + 228 Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



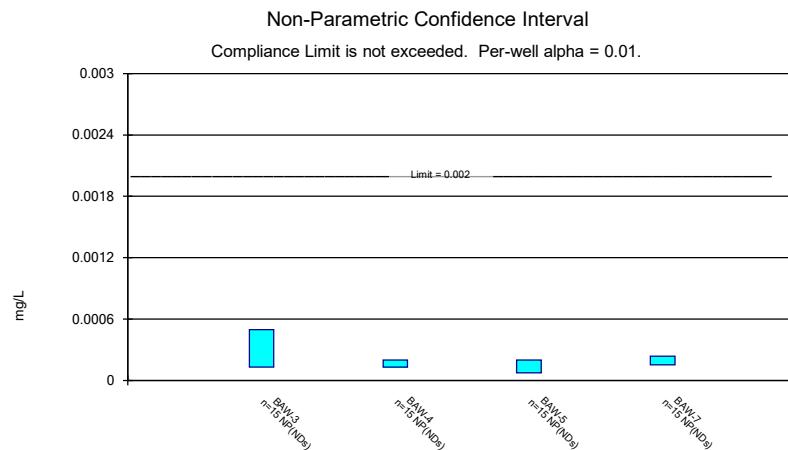
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Plant Daniel Client: Southern Company Data: Bottom Ash CCR



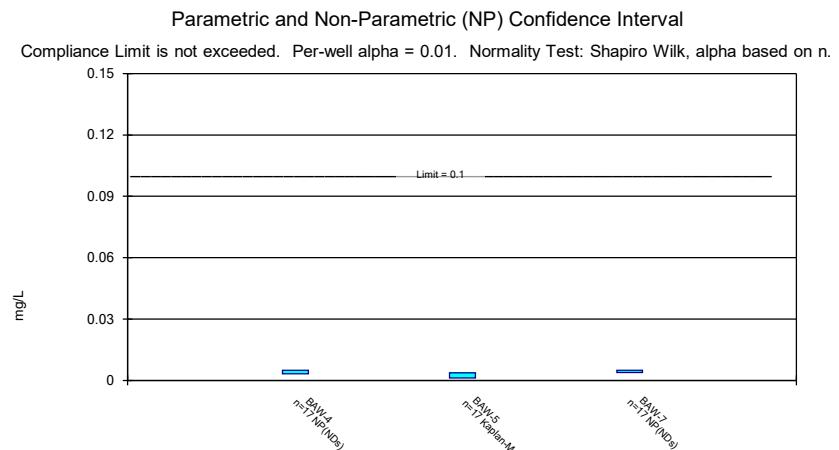
Constituent: Lead Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Lithium Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



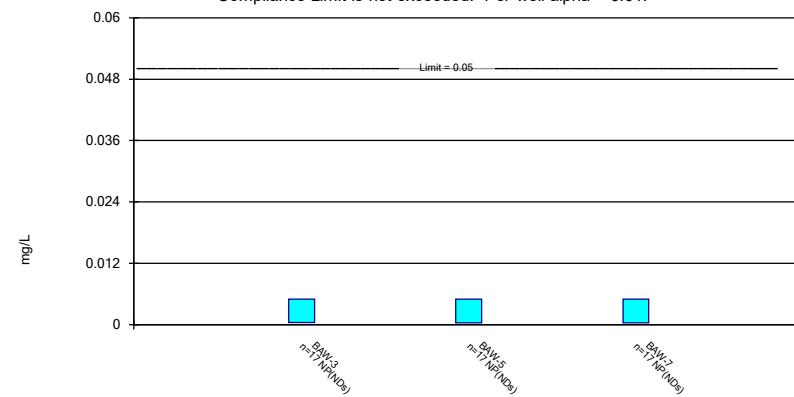
Constituent: Mercury Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR



Constituent: Molybdenum Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

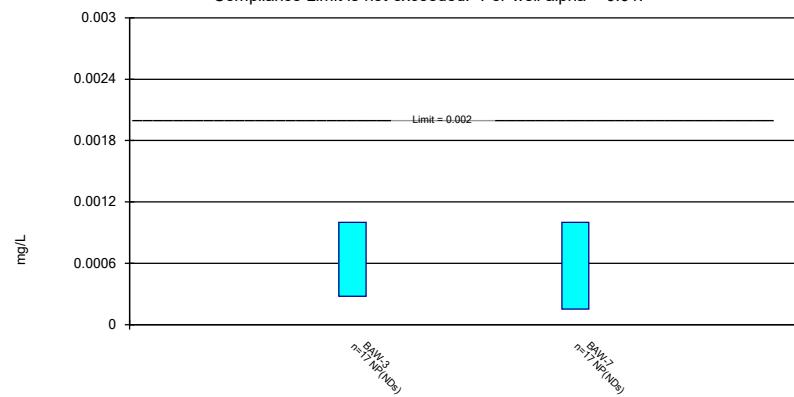
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Constituent: Selenium Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/13/2021 12:16 PM View: Confidence Interval
Plant Daniel Client: Southern Company Data: Bottom Ash CCR