



REPORT

2019 First Semi-Annual Groundwater Monitoring & Corrective Action Report

Georgia Power Company - Plant Scherer Ash Pond 1

Submitted to:



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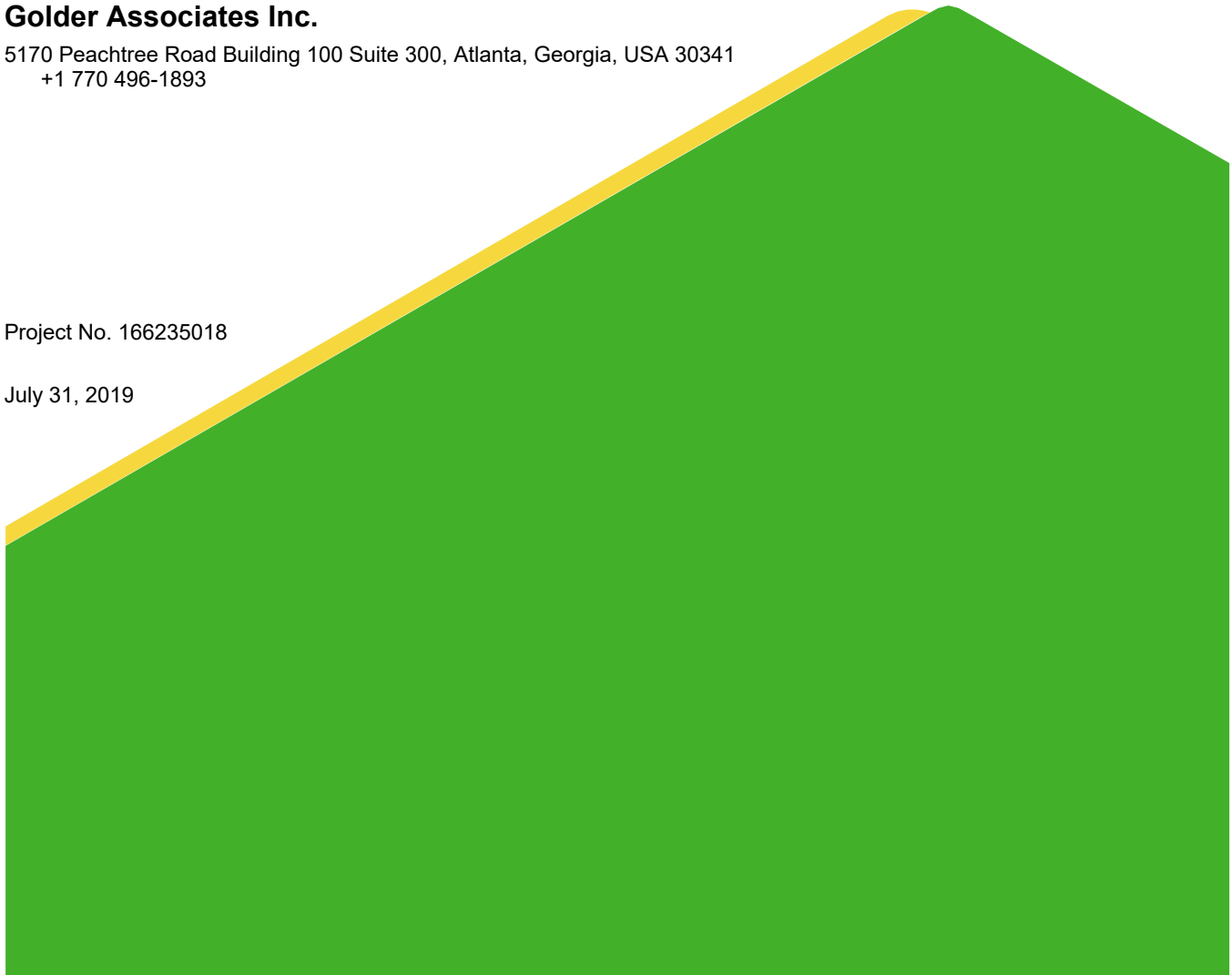


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Certification Statement

This 2019 First Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company - Plant Scherer Ash Pond 1 (AP-1) has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Golder Associates.



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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) 257 Subpart D and the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10, Golder Associates Inc. (Golder) has prepared this Semiannual Groundwater Monitoring Report to document groundwater monitoring activities conducted during the first half of 2019 at Georgia Power's Plant Scherer (Scherer) Ash Pond 1 (AP-1). This report includes the results of both the annual monitoring for Appendix IV of 40 CFR 257 conducted in February 2019 and the first semi-annual monitoring event conducted in March and April 2019 for AP-1.

A permit application for AP-1 was submitted to GA EPD in November 2018 and is currently under review. Although a permit has not yet been issued for AP-1, semi-annual monitoring and reporting for Plant Scherer is proactively performed in accordance with the monitoring program requirements of the GAEPD) Chapter 391-3-4 Solid Waste Management; Solid Waste Program; and the Groundwater Monitoring Plan for Plant Scherer Ash Pond 1, prepared by Golder Associates, November 2018.

The following sections describe the site setting and monitoring program, analytical data collected from the most recent sampling events, statistical analysis of the data, a description of groundwater flow direction and rate, and a discussion of the current findings with relevant conclusions and recommendations for future monitoring activities at the site.

1.1 Site Description & Background

Plant Scherer is a coal-fired power generation facility located in northeast Monroe County, GA, Plant Scherer is located in northeast Monroe County, Georgia, approximately 5 miles south of Juliette, GA. The property occupies approximately 12,000 acres and is bounded on the south by Lake Juliette. The plant is primarily surrounded by agricultural and residential use. Figure 1, Site Location Map, depicts the location of Plant Scherer relative to the surrounding area.

Coal Combustion Residuals (CCR) resulting from power generation has historically been stored at AP-1. Figure 2, Site Plan and Monitoring Well Location Map depicts the general configuration of AP-1 and site monitoring wells.

The site is located within the Piedmont Physiographic Province of central Georgia, which is characterized by gently rolling hills and narrow valleys, with locally pronounced linear ridges. Overall, the property slopes gently south toward Lake Juliette and east toward the Ocmulgee River (Figure 1). The ash pond is located on a topographically high area, with several relatively small, intermittent and perennial creeks and streams surrounding the pond. Several isolated hilltops occur west of the pond and represent topographic high points on the site. Topographic relief across the site is greater than 200 feet, with a natural topographic high of over 570 feet above mean sea level (ft msl) occurring along the ridge west of the ash pond, and a topographic low of less than 380 ft msl in the eastern portion of the site near Berry Creek.

1.2 Regional & Site Geology & Hydrogeologic Setting

The following section and subsections include a general description of regional geologic and hydrogeologic characteristics of formations that occur beneath the site. Information presented in this section is based on published literature, discussion with local geologic experts, and experience working in this geologic terrain.

The metamorphic and igneous rocks that underlie the area have been subjected to physical and chemical weathering, which has created a landscape dissected by creeks and streams forming a dendritic drainage pattern.

These rocks are deeply weathered due to the humid climate and bedrock is typically overlain by a variably thick blanket of residual soils and saprolite. The overall depth of weathering in the Piedmont/Blue Ridge is generally about 20 to 60 feet; however, the depth of weathering along discontinuities and/or very feldspathic rock units may extend to depths greater than 100 feet. Because of such variations in rock types and structure, the depth of weathering can vary significantly over short horizontal distances.

Near surface conditions were determined based upon available boring and monitoring well installation logs. Based on review of this information, residual soils, consisting of primarily sandy silt, silty sand, sandy clay and silty clay, occur as a variably thick blanket overlying bedrock across most of the site. The thickness of the residual soil encountered in the borings is variable, ranging from approximately 17 feet to 168 feet, with an average residual soil thickness of about 57 feet. Saprolitic soils and/or saprolitic rock vary in thickness across the site but were generally encountered at or near ground surface. Saprolitic rock is considered to be partially weathered rock (PWR) as defined by blow counts, where available. Material overlying the top of rock surface, including residual soils, saprolite, and saprolitic rock, is collectively referred to as overburden or regolith.

Field hydraulic conductivity tests (i.e., slug tests) performed in a variety of geologic materials onsite indicate an average horizontal hydraulic conductivity on the order of 10^{-4} centimeters per second (cm/s). Site data include 58 slug test measurements across the site with an average of 2.36 feet/day (ft/day); median 1.31 ft/day. This hydraulic conductivity is generally consistent with regional measurements within Piedmont overburden (Heath, 1982). In general, groundwater flow is potentially faster through the transitionally weathered zone; however, the magnitude of difference is nominal enough to not be considered relevant at this site.

1.3 Groundwater Monitoring Well Network

A groundwater monitoring system was within the uppermost aquifer at Plant Scherer's AP-1. The monitoring system is intended to monitor groundwater passing the waste boundary of AP-1 within the uppermost aquifer. Wells are located to serve as upgradient, and downgradient wells based on groundwater flow direction as determined by the potentiometric surface elevation contour maps.

A network of 25 wells was installed for groundwater monitoring near AP-1. Table 1A, Monitoring Well Network Summary, includes the pertinent construction details for the AP-1 monitoring well network at Plant Scherer. Additionally, a series of groundwater piezometers have been installed for gauging groundwater elevations. Table 1B, Piezometer Network Summary includes pertinent construction details for the AP-1 piezometer network at Plant Scherer. The detection monitoring well network has been certified by both a Registered Professional Engineer in Georgia as well as a Professional Geologist in Georgia, with notice of that certification in the Operating Record.

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with 40 CFR §257.90(e), the following describes monitoring-related activities performed during the first half of 2019 and presents the status of the monitoring program. Groundwater sampling was performed in accordance with 40 CFR §257.93. Samples were collected from each well in the certified monitoring system. The location of each of these monitoring wells is shown on Figure 2. Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for AP-1.

2.1 Monitoring Well Installation and Maintenance

There was no change to the certified groundwater monitoring system in the first half of 2019, the network remained the same as in 2018. Monitoring well related activities were limited to visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling.

2.2 Assessment Monitoring

Pursuant to §257.94(e)(3), an assessment monitoring program has been established for AP-1 at Plant Scherer based on statistically significant increases documented in the *2017 Annual Groundwater Monitoring and Corrective Action Report*, (Golder 2018). A notice of assessment monitoring was placed in the operation record on May 15, 2018.

Groundwater sampling events were conducted for AP-1 during February and March/April 2019. During the February 2019 sampling event, groundwater samples were collected and analyzed for Appendix IV to meet the requirement of §257.95(b). During the March/April 2019 first semi-annual sampling event, groundwater samples were collected for both Appendix III and the Appendix IV constituents detected during the February 2019 event at each detection monitoring well. Results of sampling activities conducted in 2019 are presented in Appendix A, Analytical Data Summary, Analytical Results, Field Data Forms, and Data Validation Summaries.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

Sampling events completed during 2019 for AP-1 represent both the annual Appendix IV monitoring event as well as the first semi-annual assessment monitoring event for AP-1 at Plant Scherer. Groundwater analytical data and chain of custody records are presented in Appendix A.

3.1 Groundwater Elevation Measurement

Prior to each sampling event, groundwater elevations were recorded from each well and piezometer. Groundwater elevation data are summarized on Table 3, Summary of Groundwater Elevations. The recorded water level data were used to develop Figure 3, AP-1 Potentiometric Surface Elevation Contour Map - March 25, 2019. Review of Figure 3 shows that groundwater generally flows east-southeast across the site and is consistent with historical observations.

3.2 Groundwater Gradient and Flow Velocity

Groundwater flow rates 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 at the site, hydraulic conductivity of approximately 1.31 to 2.36 feet per day, which are used in the flow calculations. The hydraulic gradient was calculated between well pairs shown on Table 4, Horizontal Groundwater Velocity Calculations – March 2019. 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 (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 = Average Hydraulic Conductivity of the aquifer $\left(\frac{\text{feet}}{\text{day}}\right)$

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

n_e = Effective porosity

Using this equation and groundwater elevation data from this sampling event, horizontal groundwater velocities are calculated for various areas of the site and are tabulated on Table 4.

As presented on Table 4 groundwater flow velocity at the site ranges from approximately 0.07 ft/day to 0.29 ft/day (approximately 25 to 104 ft/year) across AP-1. These calculated groundwater velocities across the site are consistent with historical calculations. The observed groundwater velocities calculated for this monitoring event are generally consistent with expected velocities in the regolith-upper bedrock aquifers and confirm the groundwater monitoring system as properly located to monitor the uppermost aquifer for AP-1 at Plant Scherer.

3.3 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a). Monitoring wells were purged and sampled using low-flow sampling procedures. Dedicated and/or non-dedicated peristaltic and low-flow pneumatic bladder pumps were used to purge and sample the wells. During the purging of each well, field measurements of temperature, specific conductance, dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP) were recorded using a SmarTroll® (In-Situ® field instrument) along with a separate turbidity meter to verify stabilization.

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

- 0.1 standard units for pH
- 5% for specific conductance
- ±10% for DO where DO > 0.5 mg/L; if DO < 0.5 mg/L, no stabilization criteria apply
- Turbidity measurements less than 5 NTU

Any deviation from stabilization criteria, if applicable, is identified on field sampling forms. Following well stabilization, unfiltered samples were collected directly into appropriately preserved laboratory supplied sample containers, placed in iced coolers, and submitted to the laboratory following standard chain-of-custody protocol. Field data forms generated directly from the SmarTroll® as well as chain-of-custody records are included in Appendix A.

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

Environmental monitoring field data sheets are included with the analytical reports in Appendix A. Field data and sampling notes for each monitoring well are recorded on the field information forms, which contains a description of the sampling equipment, sampling method, purge rate, field observations, and depth to water measurements at each monitoring location.

3.4 Laboratory Analyses

Groundwater samples were collected during two groundwater monitoring events in the first half of 2019. During the February 2019 sampling event, wells were sampled and analyzed for Appendix IV monitoring parameters pursuant to 40 CFR §257.95(b). The March-April 2019 sampling event represents the first semi-annual sampling event in 2019 for AP-1 at Plant Scherer. Since AP-1 is currently in assessment monitoring, groundwater samples from wells in the detection monitoring program were analyzed for Appendix III and the detected Appendix IV monitoring parameters per 40 CFR Parts 257 and 261. Tables 5A and 5B, Analytical Data Summary, presents a tabulated summary of the 2019 sample results.

The required laboratory analyses were performed by Eurofins TestAmerica Laboratory (TAL) located in Pittsburgh, Pennsylvania. TAL is accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed for this project. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

3.5 Quality Assurance & Quality Control Summary

During each sampling event, quality assurance/quality control samples (QA/QC) are collected at a rate of one sample per every 10 samples. Equipment blanks (where non-dedicated sampling equipment is used), field 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.

Groundwater quality data in this report was independently validated in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestions spikes, laboratory and field duplicate relative percent difference (RPDs), field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Data validation summary reports prepared by Environmental Standards and Golder are included in Appendix A. Flagged data are identified in the statistical analysis reports described in the following section.

4.0 STATISTICAL ANALYSES

Statistical analysis of Appendix III and Appendix IV groundwater monitoring data was performed pursuant to § 257.93-95 following the established statistical method for AP-1.

4.1 Statistical Method

The selected statistical method for AP-1 was developed in accordance with § 257.93(f) using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, USEPA 530/R-09-007 (Unified Guidance). The Sanitas™ Groundwater statistical software was used to perform the statistical analyses. Sanitas™ is a decision-support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA Unified Guidance (2009) document.

4.1.1 Appendix III Statistical Methods

Groundwater quality data were evaluated through use of interwell prediction limits for Appendix III parameters. Using this method, upgradient well data was pooled to establish a background statistical limit. Data from the March-April 2019 detection monitoring event are compared to the statistical limit to determine whether any concentrations exceed background levels. The selected statistical method uses an optional 1-of-2 verification resample plan. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier.

If resampling is performed and the initial finding is not verified by resampling, the resampled value replaced the initial finding. When the resample confirms the initial finding, both values remain in the database and an SSI is declared. The Sen’s Slope/Mann Kendall trend test was used to statistically evaluate concentration levels over time and determine whether concentrations are increasing, decreasing, or stabilizing.

Table 4.1.1 Plant Scherer AP-1 Statistical Method Summary provides a summary of the statistical methodology used at AP-1 for the detection monitoring conducted in March 2019 and will be used for any routine detection monitoring in the future.

Table 4.1.1: PLANT SCHERER AP-1 STATISTICAL METHOD SUMMARY		
Monitoring Well Network	Upgradient Wells	SGWA-1, SGWA-2, SGWA-3, SGWA-4, SGWA-5, SGWA-24, SGWA-25
	Downgradient Wells	SGWC-6, SGWC-7, SGWC-8, SGWC-9, SGWC-10, SGWC-11, SGWC-12, SGWC-13, SGWC-14, SGWC-15, SGWC-16, SGWC-17, SGWC-18, SGWC-19, SGWC-20, SGWC-21, SGWC-22, SGWC-23
CCR Monitoring Parameters	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
Statistical Methodology	Data Screening on Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits will be applied on a constituent basis, depending on the appropriateness of the method as determined by the Analysis of Variance

The following guidance is also applicable to the statistical analysis method:

- Statistical analyses are not performed on analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain less than or equal to 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 practical quantitation limit (PQL) as reported by the laboratory.

- When data contain between 15-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric prediction limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

4.1.2 Assessment Monitoring Statistical Methods

For the Assessment Monitoring Program (Appendix IV constituents), parametric tolerance limits were used to calculate site specific background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR 257.95(h)(1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title;
- Where an MCL has not been established, Risk Based Screening Levels (RBSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), or molybdenum (0.100 mg/L); or
- The respective background level for a constituent when the background level is higher than the MCL or rule identified GWPS.

USEPA revised the Federal CCR Rule on July 30, 2018, updating providing GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Presently those updated GWPS have not yet been incorporated in the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing EPD rules, the GWPS is:

- The MCL; or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above federal and state rule requirements, GWPSs were established for statistical comparison of Appendix IV constituents. Table 4.1.2, Summary of Background Levels and GWPSs, presented below, summarizes the background limit established at each monitoring well and the GWPS established under State and Federal rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS established for both the State and Federal rules. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. If there is an exceedance of the established standard, a statistically significant level (SSL) exceedance is identified.

Table 4.1.2 SUMMARY OF BACKGROUND LEVELS AND GWPSs

Analyte	Units	Site Specific Background March-April 2019 ^[1]	Federal-Derived GWPS ^[2]	State-Derived GWPS ^[3]
Antimony	mg/L	0.0021	0.006	0.006
Arsenic	mg/L	0.0015	0.01	0.01
Barium	mg/L	0.06349	2	2
Beryllium	mg/L	0.0002	0.004	0.004
Cadmium	mg/L	0.0011	0.005	0.005
Chromium	mg/L	0.016	0.1	0.1
Cobalt	mg/L	0.02	0.02	0.02
Fluoride	mg/L	0.108	4	4
Lead	mg/L	0.0013 ^[4]	0.015 ^[5]	0.0013
Lithium	mg/L	0.005 ^[4]	0.04	0.005
Mercury	mg/L	0.00012	0.002	0.002
Molybdenum	mg/L	0.00278	0.1	0.00278
Radium (226 + 228)	pCi/L	1.2	5	5
Selenium	mg/L	0.00041	0.05	0.05
Thallium	mg/L	0.0001	0.002	0.002

Notes:

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

- [1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).
- [2] Under 40 CFR §257(h)(1-3) the GWPS is: (i) the MCL/RBSL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.
- [3] Under existing EPD rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL.
- [4] The background tolerance limit (TL) used to evaluate GWPS for this analyte equals the laboratory specified reporting limit (RL). Per the SAP, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. We also note that the values reported herein have been updated from the previously established GWPS which was determined based on estimated data. The modified GWPS also reflects additional outlier identification.
- [5] Currently, there is no Environmental Protection Agency (EPA) MCL established for lead. The value listed as GWPS is the established EPA Action Level for drinking water.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix B, Statistical Analyses. The background period for statistical analyses included data through June 2017. Tolerance limits for confidence interval calculations are updated to include current data. Due to varying reporting limits in background, the most recent reporting limit is used when data is not reported above detection limits. This results in a more appropriate statistical test.

4.2 Statistical Analysis Results

Analytical data from the first semi-annual monitoring event in March-April 2019 at AP-1 have been statistically analyzed in accordance with the site's Statistical Analysis Plan. Verification resampling to confirm initial SSIs was not performed; therefore, initial SSIs are considered verified. The statistical results of the March 2019 monitoring event are included in Appendix B.

4.2.1 Appendix III Statistical Results

Review of the Sanitas™ results presented in Table 4.2.1 AP-1 Inter-Well Prediction Limit Statistically Significant Increase Summary and in Appendix B indicates that the following verified SSIs were noted following the March-April 2019 sampling event:

TABLE 4.2.1 AP-1 Inter-Well Prediction Limit Statistically Significant Increase Summary	
Appendix III Parameter	AP-1 Monitoring Wells
Boron	SGWC-8, SGWC-9, SGWC-10, SGWC-11, SGWC-13, SGWC-14, SGWC-15, SGWC-16, SGWC-17, SGWC-18, SGWC-19, SGWC-20, SGWC-21, SGWC-22, SGWC-23
Calcium	SGWC-8, SGWC-9, SGWC-12, SGWC-14, SGWC-17, SGWC-18, SGWC-19, SGWC-21, SGWC-22, SGWC-23
Chloride	SGWC-7, SGWC-8, SGWC-9, SGWC-10, SGWC-11, SGWC-12, SGWC-13, SGWC-14, SGWC-15, SGWC-16, SGWC-17, SGWC-18, SGWC-19, SGWC-20, SGWC-21, SGWC-22, SGWC-23
Fluoride	SGWC-8
pH	SGWC-15, SGWC-18, SGWC-20
Sulfate	SGWC-7, SGWC-8, SGWC-9, SGWC-10, SGWC-12, SGWC-13, SGWC-14, SGWC-15, SGWC-16, SGWC-17, SGWC-18, SGWC-19, SGWC-20, SGWC-21, SGWC-22, SGWC-23
Total Dissolved Solids	SGWC-7, SGWC-8, SGWC-9, SGWC-12, SGWC-13, SGWC-14, SGWC-15, SGWC-17, SGWC-18, SGWC-19, SGWC-20, SGWC-21, SGWC-22, SGWC-23

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

4.2.2 Assessment Monitoring Statistical Results

Analytical data from the March-April 2019 monitoring event at AP-1 have been statistically analyzed in accordance with the site's certified statistical analysis method. Review of the Sanitas™ results indicates that using the GWPS established according to both 40 CFR §257.95(h) and 391-3-4-.10(6)(a), the following SSLs were identified:

AP-1 Confidence Interval Statistically Significant Level Exceedances	
Appendix IV Parameter	AP-1 Monitoring Well
Cobalt	SGWC-10, SGWC-11, SGWC-15, SGWC-18, SGWC-20

4.3 Alternate Source Demonstration

In accordance with 40 CFR §257.95, an alternate source demonstration (ASD) was prepared for cobalt at AP-1 (Golder, 2019). In summary, there are multiple lines of evidence that support the conclusion that the SSLs of cobalt present in compliance monitoring wells are not the result of impact by AP-1, but rather are from an alternate, naturally occurring source. The following lines of evidence support an ASD for concentrations of cobalt in groundwater downgradient of AP-1:

- Absence of cobalt in porewater samples collected from AP-1.
- Presence of naturally occurring cobalt in soils/sediment, saprolite, and bedrock at Plant Scherer.
- Occurrence of cobalt in upgradient groundwater at concentrations above the RBSL.
- Natural dissolution of cobalt into groundwater at low pH under natural aquifer environment based on site-specific mineralogical data and geochemical conditions.
- Published sources of naturally occurring cobalt in groundwater.

Review of groundwater quality data since monitoring began at AP-1 in 2016, demonstrate a spatial variability in cobalt concentrations across the site including upgradient of AP-1.

5.0 MONITORING PROGRAM STATUS

Review of analytical results shows that concentrations of target constituents are below the primary MCLs in groundwater samples collected during the March-April 2019 sampling event. Statistical evaluations of the groundwater monitoring data for AP-1 confirms SSIs of Appendix III groundwater monitoring parameters above background and SSLs of Appendix IV groundwater monitoring parameters (cobalt) above the groundwater protection standard. In accordance with 40 CFR §257.95(g)(3), an ASD was previously submitted for cobalt. Based on the results of the March-April 2019 sampling event, AP-1 will remain in assessment monitoring.

6.0 CONCLUSIONS AND FUTURE ACTIONS

This 2019 *First Semi-Annual Groundwater Monitoring & Corrective Action Report*, Georgia Power Plant Scherer Solid Waste Facility Ash Pond 1 was prepared to fulfill the requirements of US EPA's 40 CFR §257.95 and Georgia EPD's 391-3-4-.10. Samples were obtained on March 28, March 29, April 1, and April 2, 2019. The groundwater flow direction interpreted during this event is consistent with historical evaluations.

Review of analytical results and statistical analyses developed for the site indicates that statistical exceedances identified during the first semi-annual 2019 event can be addressed by the previously submitted ASD and can be attributed to natural variability in groundwater chemistry. The monitoring well network continues to effectively monitor the uppermost aquifer beneath AP-1.

Based on the findings presented herein, Plant Scherer will continue with assessment groundwater monitoring and reporting. The next scheduled sampling event is tentatively scheduled for September 2019.

7.0 REFERENCES

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TABLES & FIGURES

TABLE 1A.
MONITORING WELL NETWORK SUMMARY
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Former Designation(s)	Hydraulic Location	Geologic Unit Screened	Latitude	Longitude	Top of Casing Elevation (feet msl)	Ground Surface Elevation (feet msl)	Total Depth (feet bgs)	Top of Screen Elevation (feet msl)	Bottom of Screen Elevation (feet msl)	Screen Length (feet)	Date of Installation
ASH POND MONITORING WELL NETWORK												
SGWA-1	APA-1/PZ-8S	Upgradient	Saprolite	33.07657	-83.82937	546.81	544.3	50.9	503.8	493.8	10.0	2/11/2015
SGWA-2	APA-11/PZ-8I	Upgradient	Bedrock	33.07658	-83.82935	546.81	588.1	95.8	502.7	492.7	10.0	2/17/2015
SGWA-3	APA-2	Upgradient	Saprolite	33.07930	-83.83133	545.65	542.47	50	502.5	492.5	10.0	11/18/2015
SGWA-4	APA-3	Upgradient	Saprolite	33.08273	-83.82535	547.27	544.25	67	493.8	483.8	10.0	11/17/2015
SGWA-5	APA-4	Upgradient	Saprolite	33.07344	-83.83746	508.11	505.32	30	485.3	475.3	10.0	11/18/2015
SGWC-6	APC-1	Downgradient	Saprolite	33.08462	-83.82255	510.57	507.94	25	492.9	482.9	10.0	11/12/2015
SGWC-7	APC-2	Downgradient	Bedrock	33.08599	-83.82163	506.05	503.32	35	478.3	468.3	10.0	11/11/2015
SGWC-8	APC-3	Downgradient	Bedrock	33.08653	-83.81928	513.93	511.05	40	481.1	471.1	10.0	11/10/2015
SGWC-9	APC-4	Downgradient	Saprolite	33.08589	-83.81773	510.37	507.61	35	482.6	472.6	10.0	11/6/2015
SGWC-10	APC-5	Downgradient	Saprolite	33.08385	-83.81580	509.22	506.3	32.6	486.3	476.3	10.0	11/5/2015
SGWC-11	APC-6	Downgradient	Saprolite	33.08288	-83.81488	511.28	508.3	40.5	478.3	468.3	10.0	10/29/2015
SGWC-12	APC-7	Downgradient	Saprolite	33.08296	-83.81267	500.29	497.5	47.6	460.4	450.4	10.0	10/30/2015
SGWC-13	APC-8	Downgradient	Saprolite	33.08213	-83.81022	482.58	479.75	35	454.8	444.8	10.0	11/4/2015
SGWC-14	APC-9/PZ-16S	Downgradient	Saprolite	33.08127	-83.80836	476.48	473.3	38.5	448.5	438.5	10.0	2/24/2015
SGWC-15	APC-10/PZ-17S	Downgradient	Saprolite	33.07914	-83.80588	483.27	480.3	45.2	445.5	435.5	10.0	2/26/2015
SGWC-16	APC-11/PZ-18S	Downgradient	Saprolite	33.07647	-83.80569	460.03	456.9	40.2	428.1	418.1	10.0	3/3/2015
SGWC-17	APC-12/PZ-20S	Downgradient	Saprolite	33.07396	-83.80533	417.96	414.8	24.5	400.7	390.7	10.0	3/11/2015
SGWC-18	APC-13/PZ-22S	Downgradient	Saprolite	33.07022	-83.80644	513.18	510.3	44.5	476.2	466.2	10.0	3/17/2015
SGWC-19	APC-14/PZ-23S	Downgradient	Saprolite	33.06769	-83.80918	478.67	475.8	34.6	451.6	441.6	10.0	3/18/2015
SGWC-20	APC-15	Downgradient	Saprolite	33.06769	-83.81175	504.44	501.12	25	486.1	476.1	10.0	11/19/2015
SGWC-21	APC-16/PZ-1S	Downgradient	Saprolite	33.06602	-83.81538	487.54	484.8	24.9	470.3	460.3	10.0	5/6/2015
SGWC-22	APC-17/PZ-2S	Downgradient	Saprolite	33.06639	-83.81928	518.07	515.6	50.1	479.1	469.1	10.0	1/22/2015
SGWC-23	APC-18/PZ-4I	Downgradient	Bedrock	33.06957	-83.82211	523.07	520.1	49.7	480.8	470.8	10.0	2/3/2015
SGWA-24	APA-5/PZ-7S	Upgradient	Saprolite	33.07352	-83.82663	503.86	500.9	40	473.2	463.2	10.0	2/10/2015
SGWA-25	APA-6/PZ-9S	Upgradient	Saprolite	33.08020	-83.82623	526.39	523.4	45.0	488.8	478.8	10.0	2/18/2015

Notes:

1. feet msl = feet mean sea level
2. feet bgs = feet below ground surface

**TABLE 1B.
PIEZOMETER NETWORK SUMMARY
Georgia Power - Plant Scherer
Juliette, GA**

Well ID	Geologic Unit Screened	Latitude	Longitude	Top of Casing Elevation (feet msl)	Ground Surface Elevation (feet msl)	Total Depth (feet bgs)	Top of Screen Elevation (feet msl)	Bottom of Screen Elevation (feet msl)	Screen Length (feet)	Date of Installation
ASH POND PIEZOMETERS										
PZ-2I	Bedrock	33.06640517	83.81931975	517.61	515.1	84.3	441.2	431.2	10	1/27/2015
PZ-3S	Saprolite	33.067894	-83.820805	517.29	514.6	50	475	465	10	1/28/2015
PZ-5I	Saprolite	33.07174453	83.82312963	523.24	520.7	49.8	484.1	474.1	10	2/4/2015
PZ-6S	Saprolite/PWR	33.07291573	83.82273659	531.48	529.2	54.8	484.8	474.8	10	2/4/2015
PZ-9I	Bedrock	33.08021581	83.82621624	527.49	523.5	80.2	453.7	443.7	10	2/19/2015
PZ-10S	Saprolite	33.08508695	83.82323921	516.81	514.2	34.9	489.7	479.7	10	5/5/2015
PZ-11S	Saprolite	33.0873611	83.81996837	529.21	526.1	45.9	490.6	480.6	10	4/6/2015
PZ-12S	Saprolite	33.08602396	83.81719277	517.65	514.7	44.4	480.7	470.7	10	4/1/2015
PZ-13S	Saprolite	33.08401471	83.81521209	520.21	517.4	45.3	482.5	472.5	10	4/1/2015
PZ-14S	Saprolite	33.08372361	83.81327948	511.86	508.8	44.9	474.3	464.3	10	3/26/2015
PZ-15S	Saprolite	33.0827095	83.81087103	499.06	496.1	40.1	466.4	456.4	10	4/28/2015
PZ-17I	Bedrock	33.07913383	83.80583497	483.23	480.4	97.3	393.7	383.7	10	2/27/2015
PZ-19I	Bedrock	33.07473161	83.805379	417.48	414.5	71.9	353	343	10	3/4/2015
PZ-19S	Saprolite	33.07472776	83.80541209	417.67	414.7	25	400.1	390.1	10	3/4/2015
PZ-20I	Bedrock	33.07398602	83.80531396	417.11	414.1	79.6	344.9	334.9	10	3/10/2015
PZ-21S	Saprolite	33.07212133	83.80618598	473.42	470.5	25	457.5	447.5	10	3/12/2015
PZ-25S	Saprolite	33.08371	-83.8141	527.91	525.5	56	480.5	470.5	10	5/24/2016
PZ-25I	Saprolite	33.08368	-83.814	528.09	525.7	126	410.7	400.7	10	5/24/2016
PZ-26S	Saprolite	33.08328	-83.8103	491.36	488.9	46	453.9	443.9	10	6/1/2016
PZ-27S	PWR	33.08291	-83.8093	475.57	473	46	438	427	11	5/26/2016
PZ-27D	Bedrock	33.0829	-83.8093	475.18	472.4	126	367.4	347.4	20	6/17/2016
PZ-28I	Bedrock	33.08244	-83.8082	483.91	481.3	70	422.3	412.3	10	6/3/2016
PZ-29S	Saprolite	33.08209	-83.8074	491.02	488.4	46	453.4	443.4	10	5/26/2016
PZ-30I	Bedrock	33.08155	-83.8059	478.03	475.4	87	400.4	390.4	10	6/2/2016
PZ-31I	Bedrock	33.08191	-83.8047	466.56	463.8	77	398.8	388.8	10	6/2/2016
PZ-32S	Saprolite/PWR	33.0816	-83.8038	464.82	462.3	57	417.3	407.3	10	6/1/2016
PZ-32D	Bedrock	33.08159	-83.8038	465.18	462.3	126.5	367.3	337.3	30	6/1/2016
PZ-33I	Saprolite/PWR	33.08201	-83.7994	469.08	466.3	76.5	401.3	391.3	10	6/8/2016
PZ-34S	PWR	33.08224	-83.7986	443.37	440.8	46	405.8	395.8	10	6/4/2016
PZ-35I	Saprolite/PWR	33.083012	-83.809238	474.17	474.5	56	428.5	418.5	10	6/22/2016
PZ-36I	Saprolite	33.07973	-83.8053	482.19	479.21	56	434.21	424.21	10	6/5/2016

**TABLE 1B.
PIEZOMETER NETWORK SUMMARY
Georgia Power - Plant Scherer
Juliette, GA**

Well ID	Geologic Unit Screened	Latitude	Longitude	Top of Casing Elevation (feet msl)	Ground Surface Elevation (feet msl)	Total Depth (feet bgs)	Top of Screen Elevation (feet msl)	Bottom of Screen Elevation (feet msl)	Screen Length (feet)	Date of Installation
PZ-37I	TWR/Bedrock	33.08183	-83.8015	482.02	479.5	72.5	418.5	408.34	10	6/2/2016
PZ-38I	Bedrock	33.082673	-83.808276	481.96	482.1	76	416.1	406.1	10	6/23/2016
PZ-39S	Saprolite	33.07909393	-8380464	474.49	471.87	76	405.87	395.87	10	8/21/2018
PZ-40I	Bedrock	33.07025497	-83.80634	512.22	509.76	83	436.76	426.76	10	8/15/2018
PZ-41S	Saprolite	33.06981269	-83.80581	491.35	488.44	45	415.44	405.44	10	8/16/2018
PZ-42I	Bedrock	33.06767245	-83.81180	502.97	500.38	96	427.38	417.38	10	8/21/2018
PZ-43S	Saprolite	33.06652778	-83.1110	504	501.27	50.5	428.27	418.27	10	8/17/2018
PZ-44I	Bedrock	33.08280082	-83.81488	510.19	507.69	114	434.69	424.69	10	9/5/2018
LPZ-01	PWR/Bedrock	33.070446	-83.833923	553.16	549.84	65.8	495.84	485.84	10	11/10/2015
LPZ-02	Saprolite	33.078618	-83.835549	513.96	510.46	20	500.46	490.46	10	11/20/2015
LPZ-03	Saprolite	33.072872	-83.833445	515.11	511.48	35	486.48	476.48	10	11/17/2015
LPZ-04	Saprolite	33.067606	-83.838599	461.06	457.83	40	439.06	429.06	10	11/18/2015
LPZ-05	Saprolite	33.065842	-83.830069	524.28	520.97	103.4	478.87	468.87	10	11/3/2015

Notes:

1. feet msl = feet mean sea level
2. feet bgs = feet below ground surface

TABLE 2.
GROUNDWATER SAMPLING EVENT SUMMARY
Georgia Power Company - Plant Scherer
Juliette, Georgia

Well ID	Hydraulic Location	Summary of Sampling Events			Status of Monitoring Well
		February 2019	March/April 2019	SSL Exceedance	
Purpose of Sampling Event		Annual Appendix IV Scan	Detection / Assessment		
ASH POND (AP-1)					
SGWA-1	Upgradient	Scan 2	A04	No	Assessment
SGWA-2	Upgradient	Scan 2	A04	No	Assessment
SGWA-3	Upgradient	Scan 2	A04	No	Assessment
SGWA-4	Upgradient	Scan 2	A04	No	Assessment
SGWA-5	Upgradient	Scan 2	A04	No	Assessment
SGWC-6	Downgradient	Scan 2	A04	No	Assessment
SGWC-7	Downgradient	Scan 2	A04	No	Assessment
SGWC-8	Downgradient	Scan 2	A04	No	Assessment
SGWC-9	Downgradient	Scan 2	A04	No	Assessment
SGWC-10	Downgradient	Scan 2	A04	Yes	Assessment
SGWC-11	Downgradient	Scan 2	A04	Yes	Assessment
SGWC-12	Downgradient	Scan 2	A04	No	Assessment
SGWC-13	Downgradient	Scan 2	A04	No	Assessment
SGWC-14	Downgradient	Scan 2	A04	No	Assessment
SGWC-15	Downgradient	Scan 2	A04	Yes	Assessment
SGWC-16	Downgradient	Scan 2	A04	No	Assessment
SGWC-17	Downgradient	Scan 2	A04	No	Assessment
SGWC-18	Downgradient	Scan 2	A04	Yes	Assessment
SGWC-19	Downgradient	Scan 2	A04	No	Assessment
SGWC-20	Downgradient	Scan 2	A04	Yes	Assessment
SGWC-21	Downgradient	Scan 2	A04	No	Assessment
SGWC-22	Downgradient	Scan 2	A04	No	Assessment
SGWC-23	Downgradient	Scan 2	A04	No	Assessment
SGWA-24	Upgradient	Scan 2	A04	No	Assessment
SGWA-25	Upgradient	Scan 2	A04	No	Assessment

Notes:

Axx - Assessment Monitoring Event Number



TABLE 3.
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Top of Casing Elevation (feet/MSL)	GROUNDWATER ELEVATIONS (FEET MSL)														
		4/19/2016	5/10/2016	6/16/2017	8/8/2016	10/3/2016	11/28/2016	2/6/2017	4/4/2017	6/19/2017	10/3/2017	3/19/2018	6/4/2018	10/1/2018	2/19/2019	3/25/2019
ASH POND																
SGWA-1	546.81	512.11	512.13	510.06	508.14	506.12	504.30	506.52	507.33	506.31	503.43	502.31	505.46	504.93	509.76	510.50
SGWA-2	546.81	518.24	512.58	509.47	508.00	505.92	504.08	507.39	508.02	506.61	503.48	503.31	506.67	505.05	510.71	511.27
SGWA-3	545.65	497.83	515.95	510.64	512.92	511.40	509.93	512.90	512.40	511.21	509.26	509.15	512.16	509.28	513.85	514.05
SGWA-4	547.27	532.81	500.12	498.97	500.63	500.07	499.11	498.22	497.81	499.57	496.76	495.76	495.26	495.12	495.46	496.19
SGWA-5	508.11	494.97	493.56	492.75	492.01	490.93	489.71	490.85	490.99	490.68	489.23	488.39	489.97	489.22	492.43	493.19
SGWC-6	510.57	497.84	497.34	494.31	495.95	495.33	494.65	495.33	495.64	495.47	494.65	495.12	495.33	494.05	495.52	496.17
SGWC-7	506.05	485.67	493.51	493.08	492.60	492.01	491.30	491.60	491.84	491.91	491.18	491.38	491.64	490.80	491.56	492.23
SGWC-8	513.93	494.89	493.70	493.07	492.51	491.97	491.23	491.82	492.05	491.86	491.05	491.42	491.41	490.63	491.79	492.48
SGWC-9	510.37	495.07	491.16	490.02	489.93	489.39	488.94	490.07	490.14	489.77	489.13	489.43	489.82	488.77	490.48	490.73
SGWC-10	509.22	492.89	493.46	491.46	491.77	491.29	490.87	492.81	492.81	492.27	491.58	492.35	492.16	490.32	492.43	492.71
SGWC-11	511.28	477.69	494.01	490.99	492.19	491.75	491.47	493.65	493.44	492.76	492.08	492.93	492.86	490.55	492.97	493.37
SGWC-12	500.29	496.74	486.89	483.19	485.09	484.58	484.18	486.12	485.89	485.33	485.67	485.39	485.73	483.82	485.75	486.23
SGWC-13	482.58	472.38	478.62	477.44	478.17	478.12	478.21	478.79	478.67	478.31	478.30	478.58	478.47	477.82	478.23	478.48
SGWC-14	476.48	449.59	465.83	465.31	465.34	465.27	465.49	466.08	465.97	465.54	465.60	460.08	466.02	465.58	466.15	466.13
SGWC-15	483.27	462.51	455.73	454.16	453.44	453.04	452.64	455.61	455.65	454.70	453.64	454.45	454.93	452.86	456.27	455.57
SGWC-16	460.03	459.6	436.54	434.83	434.19	433.80	433.61	437.75	436.53	435.08	434.41	435.47	437.20	434.08	437.49	436.48
SGWC-17	417.96	385.98	417.38	416.91	417.31	417.42	417.38	417.56	417.54	417.46	417.96	417.37	417.16	417.96	417.16	416.76
SGWC-18	513.18	499.19	480.73	478.94	477.91	476.71	475.89	478.65	477.77	476.68	476.81	476.65	477.39	478.82	480.83	480.58
SGWC-19	478.67	467.16	463.21	461.28	461.85	461.74	461.46	463.47	462.92	462.47	462.65	462.96	463.73	462.29	463.65	463.11
SGWC-20	504.44	504.26	491.58	490.18	490.65	490.04	489.55	492.01	491.09	490.76	490.44	490.71	492.43	490.49	491.64	491.11
SGWC-21	487.54	463.53	486.92	486.16	486.04	485.58	485.61	486.85	486.61	486.17	485.79	486.49	486.97	487.14	487.44	486.64
SGWC-22	518.07	486.62	493.11	489.87	491.15	490.71	490.18	492.82	492.47	492.25	491.23	492.27	493.35	491.71	494.23	494.08
SGWC-23	523.07	510.38	492.36	491.72	491.26	490.73	490.02	491.27	491.91	492.06	491.86	492.19	493.25	493.02	495.62	495.70
SGWA-24	503.86	479.06	490.24	489.11	488.54	487.96	487.44	490.05	489.46	488.61	487.66	488.96	490.17	488.18	490.16	490.05
SGWA-25	526.39	NM	500.99	498.99	497.47	496.44	495.19	497.91	498.16	497.14	495.44	496.84	497.67	495.36	499.49	499.71

TABLE 3.
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Top of Casing Elevation (feet/MSL)	GROUNDWATER ELEVATIONS (FEET MSL)														
		4/19/2016	5/10/2016	6/16/2017	8/8/2016	10/3/2016	11/28/2016	2/6/2017	4/4/2017	6/19/2017	10/3/2017	3/19/2018	6/4/2018	10/1/2018	2/19/2019	3/25/2019
PIEZOMETERS																
PZ-2I	517.61	NM	NM	NM	NM	NM	NM	492.25	491.88	491.86	490.70	491.72	492.80	491.14	493.56	493.45
PZ-3	517.29	NM	NM	NM	NM	NM	NM	489.75	489.78	489.89	489.30	489.95	490.84	489.81	492.07	491.81
PZ-5I	523.24	NM	NM	NM	NM	NM	NM	484.42	484.44	483.93	482.95	483.97	484.68	482.88	485.61	485.92
PZ-6S	531.48	NM	NM	NM	NM	NM	NM	494.94	495.39	495.38	494.75	494.72	494.97	494.44	495.88	496.03
PZ-9I	527.49	NM	NM	NM	NM	NM	NM	498.96	499.33	498.35	496.74	497.67	498.46	496.64	500.49	500.91
PZ-10S	516.81	NM	NM	NM	NM	NM	NM	493.38	493.79	493.35	492.25	492.74	493.19	491.80	493.83	494.31
PZ-11S	529.21	NM	NM	NM	NM	NM	NM	490.45	490.70	490.51	489.80	489.99	490.25	489.60	491.00	491.34
PZ-12S	517.65	NM	NM	NM	NM	NM	NM	488.93	489.14	488.82	488.12	488.45	488.79	487.91	489.56	489.81
PZ-13S	520.21	NM	NM	NM	NM	NM	NM	491.16	491.51	490.83	489.70	490.86	491.17	488.91	491.72	491.88
PZ-14S	511.86	NM	NM	NM	NM	NM	NM	489.43	489.26	488.42	487.24	488.31	489.40	486.46	489.57	489.59
PZ-14I	512.61	NM	NM	NM	NM	NM	NM	NM	489.30	488.46	487.27	488.33	489.37	486.49	489.66	489.75
PZ-15S	499.06	NM	NM	NM	NM	NM	NM	NM	NM	488.52	480.34	480.56	480.61	479.65	480.32	481.16
PZ-17I	483.23	NM	NM	NM	NM	NM	NM	455.77	455.74	454.71	453.58	454.53	455.02	453.08	456.21	455.78
PZ-19I	417.48	NM	NM	NM	NM	NM	NM	414.56	414.38	413.69	413.18	414.07	414.66	413.08	414.87	414.54
PZ-19S	417.67	NM	NM	NM	NM	NM	NM	414.00	413.87	413.12	412.92	413.71	414.19	412.80	414.38	413.86
PZ-20I	417.11	NM	NM	NM	NM	NM	NM	415.18	415.10	414.91	414.78	415.02	415.09	414.68	415.88	414.65
PZ-21S	473.42	NM	NM	NM	NM	NM	NM	466.12	465.77	465.23	465.00	465.50	466.40	465.36	466.65	466.37
PZ-25S	527.91	NM	NM	NM	NM	NM	NM	491.12	491.20	490.35	489.11	490.30	491.10	488.34	491.91	491.79
PZ-25I	528.09	NM	NM	NM	NM	NM	NM	491.42	491.13	490.26	489.09	490.30	491.63	488.24	491.83	491.67
PZ-26S	491.36	NM	NM	NM	NM	NM	NM	476.08	475.46	474.95	474.49	475.38	476.35	474.34	476.15	475.98
PZ-27S	475.57	NM	NM	NM	NM	NM	NM	471.18	470.91	469.73	469.42	470.77	471.45	469.22	471.36	471.12
PZ-27D	475.18	NM	NM	NM	NM	NM	NM	474.47	474.17	473.54	473.06	473.98	474.79	472.69	474.39	474.48
PZ-28I	483.91	NM	NM	NM	NM	NM	NM	466.60	466.21	465.40	464.85	466.26	466.74	464.73	466.98	466.77
PZ-29S	491.02	NM	NM	NM	NM	NM	NM	460.93	461.07	NM	459.84	461.03	461.37	459.94	462.10	461.96
PZ-30I	478.03	NM	NM	NM	NM	NM	NM	447.87	448.45	448.04	446.59	447.52	448.71	447.01	450.24	450.42
PZ-31I	466.56	NM	NM	NM	NM	NM	NM	436.13	436.53	435.96	434.54	435.47	437.01	435.28	439.04	439.20
PZ-32S	464.82	NM	NM	NM	NM	NM	NM	437.52	438.68	438.33	436.36	437.49	438.88	437.17	441.27	441.54
PZ-32D	465.18	NM	NM	NM	NM	NM	NM	435.64	436.03	435.46	433.98	435.16	436.38	434.86	438.44	438.75
PZ-33I	469.08	NM	NM	NM	NM	NM	NM	423.93	424.28	423.67	422.44	422.41	423.32	422.88	425.71	426.43
PZ-34S	443.37	NM	NM	NM	NM	NM	NM	424.01	423.79	NM	NM	421.98	424.09	421.27	426.48	426.59

TABLE 3.
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power - Plant Scherer
Juliette, GA

Well ID	Top of Casing Elevation (feet/MSL)	GROUNDWATER ELEVATIONS (FEET MSL)														
		4/19/2016	5/10/2016	6/16/2017	8/8/2016	10/3/2016	11/28/2016	2/6/2017	4/4/2017	6/19/2017	10/3/2017	3/19/2018	6/4/2018	10/1/2018	2/19/2019	3/25/2019
PIEZOMETERS																
PZ-35I	474.17	NM	NM	NM	NM	NM	NM	471.02	470.71	469.56	469.25	470.53	471.31	468.97	471.25	470.97
PZ-36S	482.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	445.46	449.79	452.07
PZ-36I	481.42	NM	NM	NM	NM	NM	NM	450.91	451.30	NM	448.22	449.17	450.32	447.67	451.77	448.72
PZ-37I	482.02	NM	NM	NM	NM	NM	NM	432.29	432.13	432.04	431.42	430.62	430.73	431.17	431.81	432.42
PZ-38I	481.96	NM	NM	NM	NM	NM	NM	467.06	466.95	466.06	465.48	466.90	467.40	465.36	467.58	467.44
PZ-39S	474.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	437.01	441.83	441.64
PZ-40I	512.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	479.50	480.70	481.31
PZ-41S	491.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	463.28	465.29	465.78
PZ-42I	502.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	492.12	493.32	492.85
PZ-43S	504.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	480.25	483.20	482.86
PZ-44I	510.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	490.11	492.85	493.14
LPZ-1	553.16	NM	NM	NM	NM	NM	NM	493.81	493.78	493.66	492.36	492.49	492.36	492.52	493.28	493.87
LPZ-2	513.96	NM	NM	NM	NM	NM	NM	509.73	509.97	508.75	507.50	508.98	509.79	507.79	510.60	510.66
LPZ-3	515.11	NM	NM	NM	NM	NM	NM	507.03	506.55	505.26	503.61	504.06	507.42	504.23	508.08	507.93
LPZ-4	461.06	NM	NM	NM	NM	NM	NM	446.13	446.60	445.87	444.20	445.50	447.10	445.50	448.45	448.69
LPZ-5	524.28	NM	NM	NM	NM	NM	NM	476.31	476.38	476.06	474.96	474.40	474.64	475.57	477.09	478.07

TABLE 4.
HORIZONTAL GROUNDWATER VELOCITY CALCULATIONS -March 2019
Georgia Power - Plant Scherer Ash Pond
Juliette, GA

Flow Paths	Groundwater Elevation (feet msl)	Δh (feet) ²	Δl (feet) ³	Hydraulic Gradient ($\Delta h/\Delta l$)	Average Hydraulic Conductivity, K (feet per day) ⁵	Assumed Effective Porosity (n_e)	Average Linear Groundwater Velocity	
							(feet per day) ⁴	(feet per year) ⁴
AP-1 March 2019								
SGWC-14/PZ-29S	466.13	4.17	400	0.010	1.31 to 2.36	0.2	0.07 to 0.12	25 to 45
	461.96							
SGWC-13/PZ-35I	478.48	7.51	400	0.019	1.31 to 2.36	0.2	0.12 to 0.22	45 to 81
	470.97							
LPZ-3/LPZ-4	507.93	59.24	2450	0.024	1.31 to 2.36	0.2	0.16 to 0.29	58 to 104
	448.69							

Notes:

1. ΔH = Change in groundwater elevation.
2. ΔL = Distance along flow path.
3. $I = \Delta H / \Delta L$.
4. Velocity = $(I * K)/n_e$.
5. Hydraulic conductivity range based on historic aquifer performance tests (revised 3/2017).
6. Effective porosity based on default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996).

**TABLE 5A.
ANALYTICAL DATA SUMMARY
Ash Pond - (February 2019)
GPC PLANT SCHERER
JULIETTE, GEORGIA**

Analyte	Units	SCREENING/TARGET LEVELS				GROUNDWATER MONITORING WELLS													
		MCL	SMCL	PQL/RL	MDL	SGWA-1	SGWA-2	SGWA-3	SGWA-4	SGWA-5	SGWA-24	SGWA-25	SGWC-6	SGWC-7	SGWC-8	SGWC-9	SGWC-10	SGWC-11	SGWC-12
		Sample Date:				2/18/2019	2/18/2019	2/19/2019	2/18/2019	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019
Appendix III																			
BORON, TOTAL	mg/L	N/R	N/R	0.05	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM, TOTAL	mg/L	N/R	N/R	0.23	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE, TOTAL	mg/L	N/R	250	1.0	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORIDE, TOTAL	mg/L	4	2	0.2	0.026	ND	ND (0.05 J)	ND	ND (0.066 J)	ND	ND (0.06 J)	ND (0.044 J)	ND (0.092 J)	0.2	0.32	ND (0.074 J)	ND	ND	ND (0.052 J)
pH	S.U.	N/R	6.5-8.5	N/R	N/R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE, TOTAL	mg/L	N/R	250	1.0	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/L	N/R	500	5.0	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Appendix IV																			
ANTIMONY, TOTAL	mg/L	0.006	N/R	0.0025	0.00038	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC, TOTAL	mg/L	0.01	N/R	0.0013	0.00032	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BARIUM, TOTAL	mg/L	2	N/R	0.0025	0.0015	0.046	0.035	0.033	0.057	0.0094	0.019	0.022	0.052	0.28	0.2	0.077	0.036	0.044	0.054
BERYLLIUM, TOTAL	mg/L	0.004	N/R	0.0025	0.00016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM, TOTAL	mg/L	0.005	N/R	0.0025	0.00013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHROMIUM, TOTAL	mg/L	0.1	N/R	0.0025	0.0015	ND (0.0017 J)	0.012	0.014	0.0059	ND	0.0038	ND	ND	ND	ND (0.0021 J)	ND	ND	ND	ND
COBALT, TOTAL	mg/L	N/R	N/R	0.0025	0.000075	ND (0.0008 J)	ND	ND	ND	ND	ND	0.005	ND (0.00011 J)	0.0057	ND (0.00014 J)	0.01	0.034	0.024	0.0032
LEAD, TOTAL	mg/L	0.015	N/R	0.001	0.00013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LITHIUM, TOTAL	mg/L	N/R	N/R	0.005	0.0031	ND	ND	ND	ND	ND	ND	ND	ND	0.006	ND	ND	ND	ND	ND (0.0031 J)
MERCURY, TOTAL	mg/L	0.002	N/R	0.0002	0.0001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MOLYBDENUM, TOTAL	mg/L	N/R	N/R	0.015	0.00061	ND	ND	ND	ND (0.00085 J)	ND	ND	ND	ND	ND (0.0013 J)	ND	ND (0.00075 J)	ND	ND	ND
RADIUM (226 + 228)	pCi/L	5	N/R	5	varies	0.362	0.250 U	0.231 U	0.0112 U	0.044 U	0.140 U	0.32 U	0.25 U	0.433	2.5	0.425	0.0159 U	0.708	0.161 U
SELENIUM, TOTAL	mg/L	0.05	N/R	0.0013	0.00008	ND	ND (0.00017 J)	ND (0.00012 J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
THALLIUM, TOTAL	mg/L	0.002	N/R	0.0005	6.0E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

- NOTES:
1. Bold indicated detection above MDL.
 2. mg/L - Milligrams per Liter
 3. pCi/L - picocuries per Liter
 4. S.U. - Standard Units
 5. N/R - Indicates constituent does not have a Maximum or Secondary Contaminant Limit
 6. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
 7. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
 8. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>.
 9. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
 10. NA - Annual sampling for Appendix IV constituents only was completed following initiation of assessment monitoring. Appendix III constituents were not required during this monitoring event.



TABLE 5A.
ANALYTICAL DATA SUMMARY
Ash Pond - (February 2019)
GPC PLANT SCHERER
JULIETTE, GEORGIA

Analyte	Units	SCREENING/TARGET LEVELS				GROUNDWATER MONITORING WELLS										
		MCL	SMCL	PQL/RL	MDL	SGWC-13	SGWC-14	SGWC-15	SGWC-16	SGWC-17	SGWC-18	SGWC-19	SGWC-20	SGWC-21	SGWC-22	SGWC-23
		Sample Date:				2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/19/2019	2/19/2019	
Appendix III																
BORON, TOTAL	mg/L	N/R	N/R	0.05	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM, TOTAL	mg/L	N/R	N/R	0.23	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE, TOTAL	mg/L	N/R	250	1.0	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORIDE, TOTAL	mg/L	4	2	0.2	0.026	ND	ND	0.33	ND	ND (0.034 J)	ND	ND	0.2	ND (0.051 J)	ND	ND (0.055 J)
pH	S.U.	N/R	6.5-8.5	N/R	N/R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE, TOTAL	mg/L	N/R	250	1.0	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	mg/L	N/R	500	5.0	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Appendix IV																
ANTIMONY, TOTAL	mg/L	0.006	N/R	0.0025	0.00038	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC, TOTAL	mg/L	0.01	N/R	0.0013	0.00032	ND	ND	ND (0.00075 J)	ND	ND	0.003	ND	ND	ND	ND	ND
BARIUM, TOTAL	mg/L	2	N/R	0.0025	0.0015	0.041	0.053	0.036	0.027	0.023	0.034	0.036	0.03	0.1	0.075	0.064
BERYLLIUM, TOTAL	mg/L	0.004	N/R	0.0025	0.00016	ND	ND	ND (0.00042 J)	ND	ND	ND (0.00033 J)	ND (0.00016 J)	ND (0.00077 J)	ND	ND	ND
CADMIUM, TOTAL	mg/L	0.005	N/R	0.0025	0.00013	ND	ND	ND (0.00033 J)	ND	ND	ND (0.00023 J)	ND	ND	ND	ND	ND
CHROMIUM, TOTAL	mg/L	0.1	N/R	0.0025	0.0015	ND	ND (0.0016 J)	0.038	0.013	0.0061	0.011	0.017	ND	ND (0.0015 J)	ND	ND
COBALT, TOTAL	mg/L	N/R	N/R	0.0025	7.5E-05	0.004	0.011	0.26	0.0038	ND (0.00035 J)	0.19	ND (0.00012 J)	0.18	ND (0.00011 J)	ND (0.0018 J)	ND
LEAD, TOTAL	mg/L	0.015	N/R	0.001	0.00013	ND	ND	ND	ND	ND	ND	ND	ND (0.00027 J)	ND	ND	ND
LITHIUM, TOTAL	mg/L	N/R	N/R	0.005	0.0031	ND	ND	ND (0.0038 J)	ND	ND	0.0054	ND	ND (0.0048 J)	ND	ND	ND
MERCURY, TOTAL	mg/L	0.002	N/R	0.0002	0.0001	ND	ND	ND	ND	ND	0.00026	ND	ND	ND	ND	ND
MOLYBDENUM, TOTAL	mg/L	N/R	N/R	0.015	0.00061	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RADIUM (226 + 228)	pCi/L	5	N/R	5	varies	0.222 U	0.147 U	0.573	0.0684 U	0.278 U	0.139 U	0.114 U	0.353	0.239 U	0.532	0.301 U
SELENIUM, TOTAL	mg/L	0.05	N/R	0.0013	0.00008	ND	ND	0.0034	ND (0.0012 J)	ND	0.027	ND	ND (0.0011 J)	ND	ND	ND (0.00021 J)
THALLIUM, TOTAL	mg/L	0.002	N/R	0.0005	6.0E-05	ND	ND	ND (0.000098 J)	ND	ND	ND (0.00021 J)	ND	ND (0.00018 J)	ND	ND	ND

NOTES:

1. Bold indicated detection above MDL.
2. mg/L - Milligrams per Liter
3. pCi/L - picocuries per Liter
4. S.U. - Standard Units
5. N/R - Indicates constituent does not have a Maximum or Secondary Contaminant Limit
6. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
7. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
8. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>.
9. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
10. NA - Annual sampling for Appendix IV constituents only was completed following initiation of assessment monitoring. Appendix III constituents were not required during this monitoring event.



TABLE 5B.
ANALYTICAL DATA SUMMARY
Ash Pond 1 (March/April 2019)
GPC PLANT SCHERER
JULIETTE, GEORGIA

Analyte	Units	SCREENING/TARGET LEVELS				GROUNDWATER MONITORING WELLS													
		MCL	SMCL	PQL/RL	MDL	SGWA-1	SGWA-2	SGWA-3	SGWA-4	SGWA-5	SGWA-24	SGWA-25	SGWC-6	SGWC-7	SGWC-8	SGWC-9	SGWC-10	SGWC-11	SGWC-12
		Sample Date:				3/29/2019	3/29/2019	3/28/2019	3/28/2019	3/28/2019	3/29/2019	3/28/2019	4/2/2019	4/1/2019	4/1/2019	4/1/2019	4/1/2019	4/1/2019	4/1/2019
Appendix III																			
BORON, TOTAL	mg/L	N/R	N/R	0.05	0.021	ND	ND	ND	ND	ND	ND	ND	ND	ND (0.025 J)	0.076	1.7	0.16	0.46	ND
CALCIUM, TOTAL	mg/L	N/R	N/R	0.23	0.13	2	11	4.8	17	1.4	12	8.7	6.7	18	45	50	4.2	1.7	20
CHLORIDE, TOTAL	mg/L	N/R	250	1.0	0.89	1.5	1.2	2	1.2	1.7	1.8	2.2	2	4.6	10	13	7.8	7.4	9
FLUORIDE, TOTAL	mg/L	4	2	0.2	0.082	ND	ND (0.053 J)	ND (0.026 J)	ND (0.052 J)	ND	ND (0.056 J)	ND (0.037 J)	ND (0.1 J)	ND (0.12 J)	0.21	ND (0.041 J)	ND	ND	ND (0.048 J)
pH	S.U.	N/R	6.5-8.5	N/R	N/R	5.22	6.81	5.88	6.53	5.67	6.31	6.15	6.25	6.57	6.41	6.11	5.46	5.24	6.14
SULFATE, TOTAL	mg/L	N/R	250	1.0	0.7	ND	ND (0.65 J)	1.9	1.2	ND	ND	ND	1.3	16	67	310	21	ND (0.81 J)	48
TOTAL DISSOLVED SOLIDS	mg/L	N/R	500	5.0	3.4	ND	72	43	110	58	110	79	91	200	370	580	82	33	200
Appendix IV																			
ANTIMONY, TOTAL	mg/L	0.006	N/R	0.0025	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC, TOTAL	mg/L	0.01	N/R	0.0013	0.00046	ND	ND	ND	ND	ND	ND	ND (0.00048 J)	ND	ND	ND (0.001 J)	ND	ND (0.00059 J)	ND (0.0011 J)	ND (0.0012 J)
BARIUM, TOTAL	mg/L	2	N/R	0.0025	0.00049	0.044	0.039	0.036	0.061	0.0097	0.021	0.022	0.069	0.24	0.19	0.071	0.039	0.041	0.051
BERYLLIUM, TOTAL	mg/L	0.004	N/R	0.0025	0.00034	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM, TOTAL	mg/L	0.005	N/R	0.0025	0.00034	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHROMIUM, TOTAL	mg/L	0.1	N/R	0.0025	0.0011	ND (0.0017 J)	0.014	0.013	0.0046	ND	0.0043	ND	ND	ND	ND (0.0013 J)	ND	ND	ND	ND
COBALT, TOTAL	mg/L	N/R	N/R	0.0025	0.0004	ND (0.00072 J)	ND	ND	ND	ND	ND	0.0042	ND	0.0046	ND	0.01	0.025	0.021	0.0029
LEAD, TOTAL	mg/L	0.015	N/R	0.0013	0.00035	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LITHIUM, TOTAL	mg/L	N/R	N/R	0.005	0.0011	ND	ND	ND	ND	ND	ND	ND	ND	0.0058	ND (0.0021 J)	ND	ND	ND (0.0017 J)	ND (0.0011 J)
MERCURY, TOTAL	mg/L	0.002	N/R	0.0002	0.00007	ND (0.00007 J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MOLYBDENUM, TOTAL	mg/L	N/R	N/R	0.015	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RADIUM (226 + 228)	pCi/L	5	N/R	5	varies	0.311 U	-0.0232 U	0.31 U	0.0974 U	0.115 U	0.0992 U	0.0254 U	0.3 U	0.675	1.91	-0.0113 U	0.452	0.173 U	0.372
SELENIUM, TOTAL	mg/L	0.05	N/R	0.0013	0.00071	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
THALLIUM, TOTAL	mg/L	0.002	N/R	0.0005	8.5E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

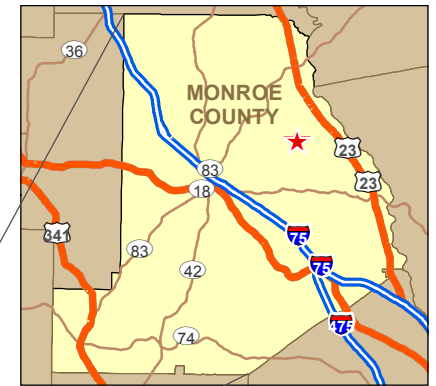
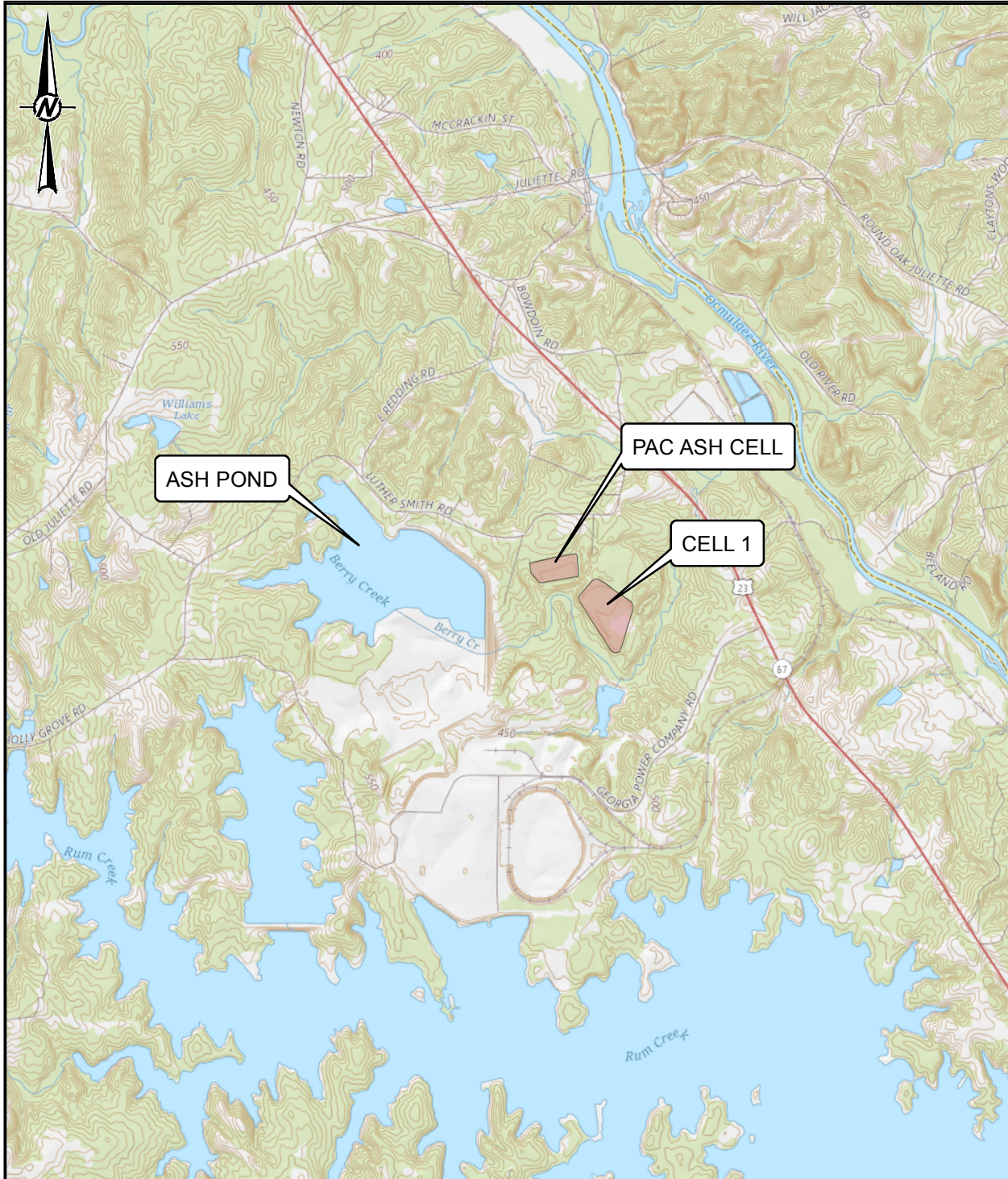
- NOTES:
1. Bold indicated detection above MCL.
 2. mg/L - Milligrams per Liter
 3. pCi/L - picocuries per Liter
 4. S.U. - Standard Units
 5. N/R - Indicates constituent is not regulated by Hazardous Site Response Act
 6. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
 7. ND - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect.
 8. MCL/SMCL - Maximum Contaminant Level/Secondary Contaminant Level - United States Environmental Protection Agency (USEPA) Table of Regulated Drinking Water Contaminants (updated June 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>. USEPA Secondary Drinking Water Standards: Guidance for Nuisance Chemicals (updated January 2016). Available at <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>.
 9. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
 10. NA - Not Applicable or not required because constituent was not detected during the annual Appendix IV monitoring event conducted in February 2019.

TABLE 5B.
ANALYTICAL DATA SUMMARY
Ash Pond 1 (March/April 2019)
GPC PLANT SCHERER
JULIETTE, GEORGIA

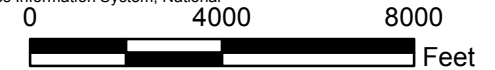
Analyte	Units	SCREENING/TARGET LEVELS				GROUNDWATER MONITORING WELLS										
		MCL	SMCL	PQL/RL	MDL	SGWC-13	SGWC-14	SGWC-15	SGWC-16	SGWC-17	SGWC-18	SGWC-19	SGWC-20	SGWC-21	SGWC-22	SGWC-23
		Sample Date:				4/1/2019	4/1/2019	4/1/2019	4/2/2019	4/2/2019	4/2/2019	4/2/2019	4/2/2019	4/2/2019	4/2/2019	4/2/2019
Appendix III																
BORON, TOTAL	mg/L	N/R	N/R	0.05	0.021	0.57	1.7	1.6	0.53	0.32	5.3	2.0	2.0	1.2	0.44	0.52
CALCIUM, TOTAL	mg/L	N/R	N/R	0.23	0.13	17	39	16	0.92	46	89	38	14	27	26	23
CHLORIDE, TOTAL	mg/L	N/R	250	1	0.89	7.7	9.9	9.2	8.2	8.2	15	7.3	11	9.3	10	8.9
FLUORIDE, TOTAL	mg/L	4	2	0.2	0.082	ND	ND	ND (0.072 J)	ND	ND (0.045 J)	ND (0.050 J)	ND	ND (0.15 J)	ND (0.066 J)	ND	ND (0.036 J)
pH	S.U.	N/R	6.5-8.5	N/R	N/R	6.06	5.89	4.72	5.27	6.26	4.72	5.50	4.33	6.09	5.65	5.87
SULFATE, TOTAL	mg/L	N/R	250	1	0.7	82	180	190	31	180	1100	240	220	92	100	95
TOTAL DISSOLVED SOLIDS	mg/L	N/R	500	5	3.4	190	330	330	73	400	1700	420	370	300	240	250
Appendix IV																
ANTIMONY, TOTAL	mg/L	0.006	N/R	0.0025	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC, TOTAL	mg/L	0.01	N/R	0.0013	0.00046	0.0014	ND (0.0012 J)	0.0016	ND	ND	0.0027	ND	ND	ND	ND	ND
BARIUM, TOTAL	mg/L	2	N/R	0.0025	0.00049	0.038	0.054	0.034	0.023	0.020	0.028	0.030	0.023	0.087	0.076	0.068
BERYLLIUM, TOTAL	mg/L	0.004	N/R	0.0025	0.00034	ND	ND	ND (0.00034 J)	ND	ND	ND	ND	ND (0.00043 J)	ND	ND	ND
CADMIUM, TOTAL	mg/L	0.005	N/R	0.0025	0.00034	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHROMIUM, TOTAL	mg/L	0.1	N/R	0.0025	0.0011	ND	ND	0.032	0.010	0.0040	0.0092	0.014	ND	ND	ND (0.0012 J)	ND (0.0011 J)
COBALT, TOTAL	mg/L	N/R	N/R	0.0025	0.0004	0.003	0.014	0.26	0.0041	ND	0.18	ND	0.13	ND	ND (0.0018 J)	ND
LEAD, TOTAL	mg/L	0.015	N/R	0.0013	0.00035	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LITHIUM, TOTAL	mg/L	N/R	N/R	0.005	0.0011	ND	ND	ND (0.0025 J)	ND	ND	ND (0.0041 J)	ND (0.0021 J)	ND (0.0046 J)	ND (0.0027 J)	ND (0.0026 J)	ND (0.0041 J)
MERCURY, TOTAL	mg/L	0.002	N/R	0.0002	0.00007	ND	ND	ND	ND	ND	0.00020	ND	ND	ND	ND	ND
MOLYBDENUM, TOTAL	mg/L	N/R	N/R	0.015	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RADIUM (226 + 228)	pCi/L	5	N/R	5	varies	0.36	-0.138 U	0.0499 U	0.167 U	-0.0476 U	0.336 U	0.110 U	0.271 U	0.218 U	0.313 U	0.516
SELENIUM, TOTAL	mg/L	0.05	N/R	0.0013	0.00071	ND	ND	ND	0.0021	ND	0.0075	ND	ND	ND	ND	ND
THALLIUM, TOTAL	mg/L	0.002	N/R	0.0005	8.5E-05	ND	ND	ND (0.000095 J)	ND	ND	ND (0.00016 J)	ND	ND (0.00017 J)	ND	ND	ND

NOTES:

1. Bold indicated detection above MCL.
2. mg/L - Milligrams per Liter
3. pCi/L - picocuries per Liter
4. S.U. - Standard Units
5. N/R - Indicates constituent is not regulated by Hazardous Site Response Act
6. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
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9. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
10. NA - Not Applicable or not required because constituent was not detected during the annual Appendix IV monitoring event conducted in February 2019.



Service Layer Credits: USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National



CLIENT
GEORGIA POWER COMPANY
PLANT SCHERER



PROJECT
2018 1ST SEMI-ANNUAL GROUNDWATER MONITORING
PLANT SCHERER

TITLE
SITE LOCATION MAP

CONSULTANT



YYYY-MM-DD	2018-01-31
PREPARED	DJC
DESIGN	DLP
REVIEW	<i>djp</i>
APPROVED	<i>rpk</i>

PROJECT No.
1662350

CONTROL
1662350\000-GIS.mxd

Rev.
0

FIGURE
1



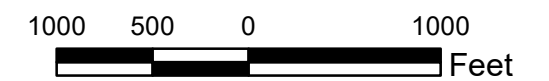
LEGEND

MONITORING WELL LOCATION

ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.

1. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).

2. MONITORING WELL/PIEZOMETER LOCATIONS PROVIDED BY SOUTHERN COMPANY SERVICES.



CLIENT
GEORGIA POWER COMPANY

PROJECT
**GROUNDWATER MONITORING PROGRAM
 AP-1**

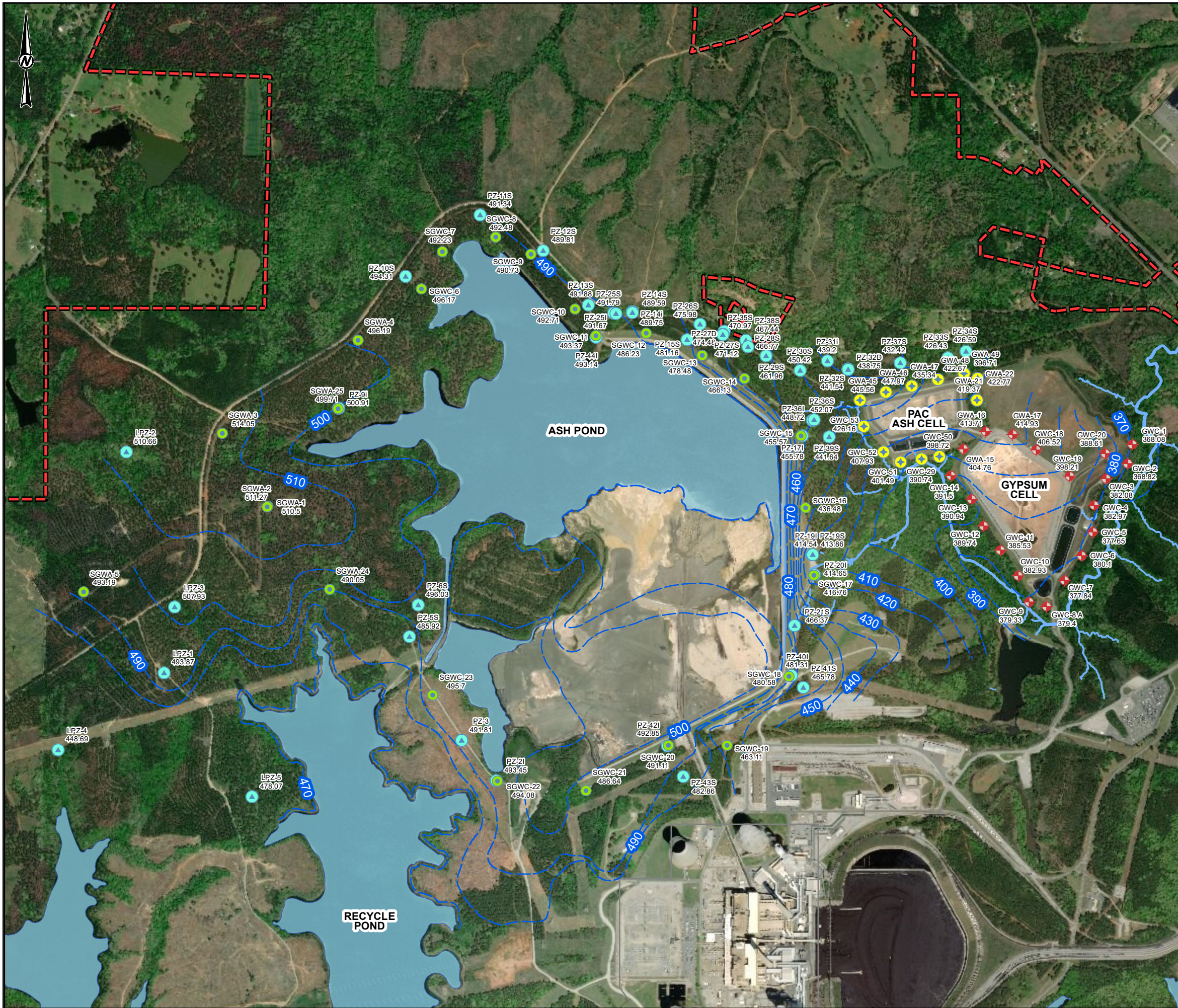
TITLE
SITE PLAN AND MONITORING WELL LOCATION MAP

CONSULTANT	YYYY-MM-DD	2018-10-24
	PREPARED	DJC
	DESIGN	DLP
	REVIEW	DLP
	APPROVED	RPK

PROJECT No. 1662350 CONTROL 1662350L003-GIS.mxd Rev. 0 FIGURE 2

P:\1662350\CAD FILES\GIS\1662350_Southern Company Services\figure\1 SITE PLAN AND MONITORING WELL LOCATION MAP\1662350L003-GIS.mxd

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



- LEGEND**
- SCHERER ASH POND-CCR MONITORING WELL
 - ◆ CELL 1 LANDFILL MONITORING WELL
 - PAC ASH LANDFILL MONITORING WELL
 - ▲ ASH POND PIEZOMETER
 - PIEZOMETER
 - ⊕ SURFACE WATER SAMPLE
 - GROUNDWATER ELEVATION CONTOUR (FAMSL)
 - - - PROPERTY BOUNDARY
 - PONDS

- NOTES**
1. ALL LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
 2. GROUNDWATER ELEVATION MEASUREMENTS OBTAINED MARCH 25, 2019 BY GOLDER ASSOCIATES.
 3. GROUNDWATER ELEVATIONS DISPLAYED IN FEET ABOVE MEAN SEA LEVEL (FAMSL).
 4. DEEP AND INTERMEDIATE WELL GROUNDWATER ELEVATIONS WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

- REFERENCE**
1. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
 2. MONITORING WELL/PIEZOMETER LOCATIONS PROVIDED BY SOUTHERN COMPANY SERVICES.



CLIENT
GEORGIA POWER COMPANY
 PLANT SCHERER

PROJECT
GROUNDWATER MONITORING PROGRAM

TITLE
AP-1 POTENTIOMETRIC SURFACE ELEVATION CONTOUR MAP
MARCH 25, 2019

CONSULTANT	YYYY-MM-DD	2019-04-22
GOLDER	PREPARED	DJC
	DESIGN	DLP
	REVIEW	DLP
	APPROVED	RPK

PROJECT No. 1662350 CONTROL 1662350Q001-GIS.mxd Rev. 0 FIGURE **3**

Path: H:\1662350-Project\1662350-Southern Company Services\gms\GIS\CONTOUR MAPS MAR 2019\1662350Q001-GIS.mxd

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

APPENDIX A

**ANALYTICAL DATA SUMMARY, ANALYTICAL
RESULTS, FIELD DATA FORMS & DATA
VALIDATION SUMMARIES**

APPENDIX A

**ANALYTICAL RESULTS
FEBRUARY 2019**

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-86907-1

TestAmerica Sample Delivery Group: Ash

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/18/2019 10:34:31 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

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results through

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Visit us at:

www.testamericainc.com

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



Table of Contents

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Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	13
QC Sample Results	19
QC Association Summary	22
Chain of Custody	24
Receipt Checklists	34

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Job ID: 180-86907-1

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-86907-1

Comments

No additional comments.

Receipt

The samples were received on 2/21/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.6° C, 2.7° C, 3.1° C and 3.4° C.

Anions

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.

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

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

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.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-86907-1	SGWA-1	Water	02/18/19 15:20	02/21/19 09:00
180-86907-2	SGWA-2	Water	02/18/19 15:00	02/21/19 09:00
180-86907-3	SGWA-4	Water	02/18/19 15:48	02/21/19 09:00
180-86907-4	FB-1	Water	02/18/19 16:30	02/21/19 09:00
180-86907-5	SGWA-3	Water	02/19/19 09:35	02/21/19 09:00
180-86907-6	SGWA-5	Water	02/19/19 15:40	02/21/19 09:00
180-86907-7	SGWA-24	Water	02/19/19 09:47	02/21/19 09:00
180-86907-8	SGWA-25	Water	02/19/19 11:35	02/21/19 09:00
180-86907-9	SGWC-22	Water	02/19/19 14:10	02/21/19 09:00
180-86907-10	SGWC-23	Water	02/19/19 12:41	02/21/19 09:00
180-86907-11	EB-1	Water	02/19/19 12:38	02/21/19 09:00
180-86907-12	DUP-1	Water	02/19/19 00:00	02/21/19 09:00

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWA-1
Date Collected: 02/18/19 15:20
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			271212	02/25/19 06:33	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: M		1			271755	02/28/19 21:49	WTR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			272056	03/05/19 14:35	KAK	TAL PIT

Client Sample ID: SGWA-2
Date Collected: 02/18/19 15:00
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-2
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 300.0 R2.1 Instrument ID: CHICS2100B		1			271212	02/25/19 07:21	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: M		1			271755	02/28/19 21:53	WTR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			272056	03/05/19 14:37	KAK	TAL PIT

Client Sample ID: SGWA-4
Date Collected: 02/18/19 15:48
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-3
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 300.0 R2.1 Instrument ID: CHICS2100B		1			271212	02/25/19 07:37	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: M		1			271755	02/28/19 21:58	WTR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGZ		1			272056	03/05/19 14:38	KAK	TAL PIT

Client Sample ID: FB-1
Date Collected: 02/18/19 16:30
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-4
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 300.0 R2.1		1			271212	02/25/19 06:13	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: FB-1

Lab Sample ID: 180-86907-4

Date Collected: 02/18/19 16:30

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 06:13	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:03	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:39	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: SGWA-3

Lab Sample ID: 180-86907-5

Date Collected: 02/19/19 09:35

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 07:52	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:07	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:40	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: SGWA-5

Lab Sample ID: 180-86907-6

Date Collected: 02/19/19 15:40

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 08:08	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:12	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:41	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 09:12	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 09:12	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:17	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:42	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: SGWA-25

Lab Sample ID: 180-86907-8

Date Collected: 02/19/19 11:35

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 09:27	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:21	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:45	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: SGWC-22

Lab Sample ID: 180-86907-9

Date Collected: 02/19/19 14:10

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 09:43	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:26	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:46	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: SGWC-23

Lab Sample ID: 180-86907-10

Date Collected: 02/19/19 12:41

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 09:59	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWC-23

Lab Sample ID: 180-86907-10

Date Collected: 02/19/19 12:41

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 09:59	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:31	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:47	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: EB-1

Lab Sample ID: 180-86907-11

Date Collected: 02/19/19 12:38

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 08:56	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:45	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:48	KAK	TAL PIT
Instrument ID: HGZ										

Client Sample ID: DUP-1

Lab Sample ID: 180-86907-12

Date Collected: 02/19/19 00:00

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271212	02/25/19 10:15	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271349	02/26/19 12:05	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271755	02/28/19 22:49	WTR	TAL PIT
Instrument ID: M										
Total/NA	Prep	7470A			50 mL	50 mL	271909	03/04/19 13:38	KAK	TAL PIT
Total/NA	Analysis	EPA 7470A		1			272056	03/05/19 14:49	KAK	TAL PIT
Instrument ID: HGZ										

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KAK = Kayla Kalamasz

NAM = Nicole Marfisi

Batch Type: Analysis

KAK = Kayla Kalamasz

MJH = Matthew Hartman

WTR = Bill Reinheimer

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWA-1
Date Collected: 02/18/19 15:20
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 06:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 21:49	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 21:49	1
Barium	0.046		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:49	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 21:49	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 21:49	1
Chromium	0.0017	J	0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:49	1
Cobalt	0.00080	J	0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 21:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 21:49	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 21:49	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 21:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 21:49	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 21:49	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:35	1

Client Sample ID: SGWA-2
Date Collected: 02/18/19 15:00
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	J	0.20	0.026	mg/L			02/25/19 07:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 21:53	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 21:53	1
Barium	0.035		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:53	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 21:53	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 21:53	1
Chromium	0.012		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:53	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 21:53	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 21:53	1
Selenium	0.00017	J B	0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 21:53	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 21:53	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 21:53	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 21:53	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:37	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWA-4

Lab Sample ID: 180-86907-3

Date Collected: 02/18/19 15:48

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.066	J	0.20	0.026	mg/L			02/25/19 07:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 21:58	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 21:58	1
Barium	0.057		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:58	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 21:58	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 21:58	1
Chromium	0.0059		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:58	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 21:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 21:58	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 21:58	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 21:58	1
Molybdenum	0.00085	J	0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 21:58	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 21:58	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:38	1

Client Sample ID: FB-1

Lab Sample ID: 180-86907-4

Date Collected: 02/18/19 16:30

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 06:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:03	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:03	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:03	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:03	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:03	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:03	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:03	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:03	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:03	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:03	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:03	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:39	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWA-3

Lab Sample ID: 180-86907-5

Date Collected: 02/19/19 09:35

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 07:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:07	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:07	1
Barium	0.033		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:07	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:07	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:07	1
Chromium	0.014		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:07	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:07	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:07	1
Selenium	0.00012	J B	0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:07	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:07	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:07	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:07	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:40	1

Client Sample ID: SGWA-5

Lab Sample ID: 180-86907-6

Date Collected: 02/19/19 15:40

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 08:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:12	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:12	1
Barium	0.0094		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:12	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:12	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:12	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:12	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:12	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:12	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:12	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:12	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:41	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.20	0.026	mg/L			02/25/19 09:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:17	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:17	1
Barium	0.019		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:17	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:17	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:17	1
Chromium	0.0038		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:17	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:17	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:17	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:17	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:17	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:17	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:17	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:42	1

Client Sample ID: SGWA-25

Lab Sample ID: 180-86907-8

Date Collected: 02/19/19 11:35

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.044	J	0.20	0.026	mg/L			02/25/19 09:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:21	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:21	1
Barium	0.022		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:21	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:21	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:21	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:21	1
Cobalt	0.0050		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:21	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:21	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:21	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:21	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: SGWC-22

Lab Sample ID: 180-86907-9

Date Collected: 02/19/19 14:10

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 09:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:26	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:26	1
Barium	0.075		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:26	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:26	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:26	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:26	1
Cobalt	0.0018	J	0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:26	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:26	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:26	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:26	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:26	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:26	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:46	1

Client Sample ID: SGWC-23

Lab Sample ID: 180-86907-10

Date Collected: 02/19/19 12:41

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.055	J	0.20	0.026	mg/L			02/25/19 09:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:31	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:31	1
Barium	0.064		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:31	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:31	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:31	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:31	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:31	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:31	1
Selenium	0.00021	J B	0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:31	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:31	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:31	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:31	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:47	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Client Sample ID: EB-1

Lab Sample ID: 180-86907-11

Date Collected: 02/19/19 12:38

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 08:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:45	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:45	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:45	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:45	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:45	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:45	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:45	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:45	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:45	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:45	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:45	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:45	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:48	1

Client Sample ID: DUP-1

Lab Sample ID: 180-86907-12

Date Collected: 02/19/19 00:00

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 10:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 22:49	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 22:49	1
Barium	0.074		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:49	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 22:49	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 22:49	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 22:49	1
Cobalt	0.0019	J	0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 22:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 22:49	1
Selenium	<0.000081		0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 22:49	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 22:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 22:49	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 22:49	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:49	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

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

Lab Sample ID: MB 180-271212/6
Matrix: Water
Analysis Batch: 271212

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			02/25/19 05:28	1

Lab Sample ID: LCS 180-271212/5
Matrix: Water
Analysis Batch: 271212

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.1		mg/L		101	90 - 110
Fluoride	1.25	1.21		mg/L		97	90 - 110
Sulfate	25.0	24.2		mg/L		97	90 - 110

Lab Sample ID: 180-86907-1 MS
Matrix: Water
Analysis Batch: 271212

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.8		25.0	26.4		mg/L		99	80 - 120
Fluoride	<0.026		1.25	1.22		mg/L		98	80 - 120
Sulfate	<0.38		25.0	24.5		mg/L		98	80 - 120

Lab Sample ID: 180-86907-1 MSD
Matrix: Water
Analysis Batch: 271212

Client Sample ID: SGWA-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	1.8		25.0	26.1		mg/L		97	80 - 120	1	20
Fluoride	<0.026		1.25	1.20		mg/L		96	80 - 120	1	20
Sulfate	<0.38		25.0	24.3		mg/L		97	80 - 120	1	20

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-271349/1-A
Matrix: Water
Analysis Batch: 271755

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 271349

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:05	02/28/19 21:16	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:05	02/28/19 21:16	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:16	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:05	02/28/19 21:16	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:05	02/28/19 21:16	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:05	02/28/19 21:16	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:05	02/28/19 21:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:05	02/28/19 21:16	1
Selenium	0.000172	J	0.0013	0.000081	mg/L		02/26/19 12:05	02/28/19 21:16	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:05	02/28/19 21:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:05	02/28/19 21:16	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:05	02/28/19 21:16	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

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

Lab Sample ID: LCS 180-271349/2-A
Matrix: Water
Analysis Batch: 271755

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 271349

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.513		mg/L		103	80 - 120
Arsenic	0.0400	0.0364		mg/L		91	80 - 120
Barium	2.00	1.86		mg/L		93	80 - 120
Beryllium	0.0500	0.0477		mg/L		95	80 - 120
Cadmium	0.0500	0.0506		mg/L		101	80 - 120
Chromium	0.200	0.173		mg/L		87	80 - 120
Cobalt	0.500	0.443		mg/L		89	80 - 120
Lead	0.0200	0.0200		mg/L		100	80 - 120
Selenium	0.0100	0.00884		mg/L		88	80 - 120
Thallium	0.0500	0.0490		mg/L		98	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Lithium	0.0500	0.0501		mg/L		100	80 - 120

Lab Sample ID: 180-86771-C-32-B MS
Matrix: Water
Analysis Batch: 271755

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 271349

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.00038		0.500	0.508		mg/L		102	75 - 125
Arsenic	<0.00032		0.0400	0.0353		mg/L		88	75 - 125
Barium	0.013		2.00	1.83		mg/L		91	75 - 125
Beryllium	<0.00016		0.0500	0.0441		mg/L		88	75 - 125
Cadmium	<0.00013		0.0500	0.0521		mg/L		104	75 - 125
Chromium	<0.0015		0.200	0.164		mg/L		82	75 - 125
Cobalt	<0.000075		0.500	0.407		mg/L		81	75 - 125
Lead	<0.00013		0.0200	0.0198		mg/L		99	75 - 125
Selenium	<0.000081		0.0100	0.00797		mg/L		80	75 - 125
Thallium	<0.000063		0.0500	0.0490		mg/L		98	75 - 125
Molybdenum	0.00086	J	1.00	1.00		mg/L		100	75 - 125
Lithium	<0.0031		0.0500	0.0506		mg/L		101	75 - 125

Lab Sample ID: 180-86771-C-32-C MSD
Matrix: Water
Analysis Batch: 271755

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 271349

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.00038		0.500	0.508		mg/L		102	75 - 125	0	20
Arsenic	<0.00032		0.0400	0.0363		mg/L		91	75 - 125	3	20
Barium	0.013		2.00	1.82		mg/L		90	75 - 125	0	20
Beryllium	<0.00016		0.0500	0.0446		mg/L		89	75 - 125	1	20
Cadmium	<0.00013		0.0500	0.0507		mg/L		101	75 - 125	3	20
Chromium	<0.0015		0.200	0.163		mg/L		81	75 - 125	1	20
Cobalt	<0.000075		0.500	0.410		mg/L		82	75 - 125	1	20
Lead	<0.00013		0.0200	0.0199		mg/L		99	75 - 125	0	20
Selenium	<0.000081		0.0100	0.00867		mg/L		87	75 - 125	8	20
Thallium	<0.000063		0.0500	0.0488		mg/L		98	75 - 125	0	20
Molybdenum	0.00086	J	1.00	1.00		mg/L		100	75 - 125	0	20
Lithium	<0.0031		0.0500	0.0528		mg/L		106	75 - 125	4	20

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-271909/1-A
Matrix: Water
Analysis Batch: 272056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271909

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		03/04/19 13:38	03/05/19 14:31	1

Lab Sample ID: LCS 180-271909/2-A
Matrix: Water
Analysis Batch: 272056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00250	0.00241		mg/L		96	80 - 120

Lab Sample ID: 180-86907-1 MS
Matrix: Water
Analysis Batch: 272056

Client Sample ID: SGWA-1
Prep Type: Total/NA
Prep Batch: 271909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00010		0.00100	0.000994		mg/L		99	75 - 125

Lab Sample ID: 180-86907-1 MSD
Matrix: Water
Analysis Batch: 272056

Client Sample ID: SGWA-1
Prep Type: Total/NA
Prep Batch: 271909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.00010		0.00100	0.00100		mg/L		100	75 - 125	1	20

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

HPLC/IC

Analysis Batch: 271212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total/NA	Water	EPA 300.0 R2.1	
180-86907-2	SGWA-2	Total/NA	Water	EPA 300.0 R2.1	
180-86907-3	SGWA-4	Total/NA	Water	EPA 300.0 R2.1	
180-86907-4	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-86907-5	SGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-86907-6	SGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-86907-7	SGWA-24	Total/NA	Water	EPA 300.0 R2.1	
180-86907-8	SGWA-25	Total/NA	Water	EPA 300.0 R2.1	
180-86907-9	SGWC-22	Total/NA	Water	EPA 300.0 R2.1	
180-86907-10	SGWC-23	Total/NA	Water	EPA 300.0 R2.1	
180-86907-11	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-86907-12	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-271212/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-271212/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-86907-1 MS	SGWA-1	Total/NA	Water	EPA 300.0 R2.1	
180-86907-1 MSD	SGWA-1	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 271349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total Recoverable	Water	3005A	
180-86907-2	SGWA-2	Total Recoverable	Water	3005A	
180-86907-3	SGWA-4	Total Recoverable	Water	3005A	
180-86907-4	FB-1	Total Recoverable	Water	3005A	
180-86907-5	SGWA-3	Total Recoverable	Water	3005A	
180-86907-6	SGWA-5	Total Recoverable	Water	3005A	
180-86907-7	SGWA-24	Total Recoverable	Water	3005A	
180-86907-8	SGWA-25	Total Recoverable	Water	3005A	
180-86907-9	SGWC-22	Total Recoverable	Water	3005A	
180-86907-10	SGWC-23	Total Recoverable	Water	3005A	
180-86907-11	EB-1	Total Recoverable	Water	3005A	
180-86907-12	DUP-1	Total Recoverable	Water	3005A	
MB 180-271349/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-271349/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-86771-C-32-B MS	Matrix Spike	Total Recoverable	Water	3005A	
180-86771-C-32-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 271755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total Recoverable	Water	EPA 6020	271349
180-86907-2	SGWA-2	Total Recoverable	Water	EPA 6020	271349
180-86907-3	SGWA-4	Total Recoverable	Water	EPA 6020	271349
180-86907-4	FB-1	Total Recoverable	Water	EPA 6020	271349
180-86907-5	SGWA-3	Total Recoverable	Water	EPA 6020	271349
180-86907-6	SGWA-5	Total Recoverable	Water	EPA 6020	271349
180-86907-7	SGWA-24	Total Recoverable	Water	EPA 6020	271349
180-86907-8	SGWA-25	Total Recoverable	Water	EPA 6020	271349
180-86907-9	SGWC-22	Total Recoverable	Water	EPA 6020	271349
180-86907-10	SGWC-23	Total Recoverable	Water	EPA 6020	271349

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-1
SDG: Ash

Metals (Continued)

Analysis Batch: 271755 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-11	EB-1	Total Recoverable	Water	EPA 6020	271349
180-86907-12	DUP-1	Total Recoverable	Water	EPA 6020	271349
MB 180-271349/1-A	Method Blank	Total Recoverable	Water	EPA 6020	271349
LCS 180-271349/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	271349
180-86771-C-32-B MS	Matrix Spike	Total Recoverable	Water	EPA 6020	271349
180-86771-C-32-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	EPA 6020	271349

Prep Batch: 271909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total/NA	Water	7470A	
180-86907-2	SGWA-2	Total/NA	Water	7470A	
180-86907-3	SGWA-4	Total/NA	Water	7470A	
180-86907-4	FB-1	Total/NA	Water	7470A	
180-86907-5	SGWA-3	Total/NA	Water	7470A	
180-86907-6	SGWA-5	Total/NA	Water	7470A	
180-86907-7	SGWA-24	Total/NA	Water	7470A	
180-86907-8	SGWA-25	Total/NA	Water	7470A	
180-86907-9	SGWC-22	Total/NA	Water	7470A	
180-86907-10	SGWC-23	Total/NA	Water	7470A	
180-86907-11	EB-1	Total/NA	Water	7470A	
180-86907-12	DUP-1	Total/NA	Water	7470A	
MB 180-271909/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-271909/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-86907-1 MS	SGWA-1	Total/NA	Water	7470A	
180-86907-1 MSD	SGWA-1	Total/NA	Water	7470A	

Analysis Batch: 272056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total/NA	Water	EPA 7470A	271909
180-86907-2	SGWA-2	Total/NA	Water	EPA 7470A	271909
180-86907-3	SGWA-4	Total/NA	Water	EPA 7470A	271909
180-86907-4	FB-1	Total/NA	Water	EPA 7470A	271909
180-86907-5	SGWA-3	Total/NA	Water	EPA 7470A	271909
180-86907-6	SGWA-5	Total/NA	Water	EPA 7470A	271909
180-86907-7	SGWA-24	Total/NA	Water	EPA 7470A	271909
180-86907-8	SGWA-25	Total/NA	Water	EPA 7470A	271909
180-86907-9	SGWC-22	Total/NA	Water	EPA 7470A	271909
180-86907-10	SGWC-23	Total/NA	Water	EPA 7470A	271909
180-86907-11	EB-1	Total/NA	Water	EPA 7470A	271909
180-86907-12	DUP-1	Total/NA	Water	EPA 7470A	271909
MB 180-271909/1-A	Method Blank	Total/NA	Water	EPA 7470A	271909
LCS 180-271909/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	271909
180-86907-1 MS	SGWA-1	Total/NA	Water	EPA 7470A	271909
180-86907-1 MSD	SGWA-1	Total/NA	Water	EPA 7470A	271909

TestAmerica Pittsburgh

301 Alpha Drive
 RIDC Park
 Pittsburgh, PA 15238-2907
 phone 412.963.7058 fax 412.963.2468

Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact			Project Manager: Dawn Prell			Site Contact: Travis Martinez			Date:			COC No.:					
Southern Company			Tel/Fax: 248-536-5445			Lab Contact: Veronica Bortot			Carrier:			of COCs					
241 Ralph McGill Blvd SE B10185			Analysis Turnaround Time			Filtered Sample (Y/N) Perform MS / MSD (Y/N) 6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A - Hg 300_ORGFM_28D-Fluoride 9315_Ra226, 9320_Ra228, Ra226/Ra228_GFPC			Sampler:			For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sample Specific Notes:					
Atlanta, GA, 30308			<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS						TAT if different from Below _____						For Lab Use Only:		
(404) 506-7239 Phone			<input type="checkbox"/> 2 weeks						TAT if different from Below _____						For Lab Use Only:		
FAX			<input type="checkbox"/> 1 week						TAT if different from Below _____						For Lab Use Only:		
Project Name: GPC Plant Scherer			<input type="checkbox"/> 2 days						TAT if different from Below _____						For Lab Use Only:		
Site: Ash Pond			<input type="checkbox"/> 1 day			TAT if different from Below _____			For Lab Use Only:								
P O # 166235018									For Lab Use Only:								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl,7470A - Hg	300_ORGFM_28D-Fluoride	9315_Ra226, 9320_Ra228, Ra226/Ra228_GFPC							
SGWA-1	02/18/19	15:20	G	GW	3	N		1	1	1	1 x 1/2 gallon radium						
SGWA-2	02/18/19	15:00	G	GW	3	N		1	1	1	1 x 1/2 gallon radium						
SGWA-4	02/18/19	15:48	G	GW	4	N		1	1	2							
FB-1	02/18/19	16:30	G	W	4	N		1	1	2							
SGWA-3	02/19/19	09:35	G	GW	4	N		1	1	2							
SGWA-5	02/19/19	15:40	G	GW	4	N		1	1	2							
SGWA-24	02/19/19	09:47	G	GW	4	N		1	1	2							
SGWA-25	02/19/19	11:35	G	GW	4	N		1	1	2							
SGWC-22	02/19/19	14:10	G	GW	4	N		1	1	2							
SGWC-23	02/19/19	12:41	G	GW	4	N		1	1	2							
EB-1	02/19/19	12:38	G	W	4	N		1	1	2							
DUP-1	02/19/19	--	G	GW	4	N		1	1	2							
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3; 5=NaOH; 6= Other								4	1	4							
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.								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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months									
Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.																	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.:			Cooler Temp. (°C): Obs'd:			Corr'd:			Therm ID No.:					
Relinquished by: <i>Travis Martinez</i>			Company: <i>Goldier</i>			Date/Time: <i>2-20-19/0800</i>			Received by: <i>[Signature]</i>			Company: <i>2-20-19 0800</i>					
Relinquished by: <i>[Signature]</i>			Company: <i>2-20-19 1118</i>			Date/Time:			Received by: <i>[Signature]</i>			Company: <i>TAPITT</i>					
Relinquished by:			Company:			Date/Time:			Received in Laboratory by:			Company: <i>900</i>					



TestAmerica Pittsburgh

301 Alpha Drive
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 Pittsburgh, PA 15238-2907
 phone 412.963.7058 fax 412.963.2468

681-Atlanta

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dawn Prell		Site Contact: Travis Martinez		Date:		COC No:					
Southern Company		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		_____ of _____ COCs					
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time								Sampler:			
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS								For Lab Use Only:			
(404) 506-7239 Phone		TAT if different from Below _____								Walk-in Client:			
FAX		<input type="checkbox"/> 2 weeks								Lab Sampling:			
Project Name: GPC Plant Scherer		<input type="checkbox"/> 1 week								Job / SDG No.:			
Site: Ash Pond		<input type="checkbox"/> 2 days											
P O # 166235018		<input type="checkbox"/> 1 day											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl, 7470A - Hg	300_ORGFM_28D-Fluoride	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPIC	Sample Specific Notes:	
SGWA-1		02/18/19	15:20	G	GW	3	N		1	1	1	1 x 1/2 gallon radium	
SGWA-2		02/18/19	15:00	G	GW	3	N		1	1	1	1 x 1/2 gallon radium	
SGWA-4		02/18/19	15:48	G	GW	4	N		1	1	2		
FB-1		02/18/19	16:30	G	W	4	N		1	1	2		
SGWA-3		02/19/19	09:35	G	GW	4	N		1	1	2		
SGWA-5		02/19/19	15:40	G	GW	4	N		1	1	2		
SGWA-24		02/19/19	09:47	G	GW	4	N		1	1	2		
SGWA-25		02/19/19	11:35	G	GW	4	N		1	1	2		
SGWC-22		02/19/19	14:10	G	GW	4	N		1	1	2		
SGWC-23		02/19/19	12:41	G	GW	4	N		1	1	2		
EB-1		02/19/19	12:38	G	W	4	N		1	1	2		
DUP-1		02/19/19	--	G	GW	4	N		1	1	2		
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other								4	1	4			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" 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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:					
Relinquished by: Travis Martinez		Company: Goldo		Date/Time: 2-20-19/0800		Received by: [Signature]		Company: 2-20-19		Date/Time: 0800			
Relinquished by: [Signature]		Company: 2-20-19		Date/Time: 1118		Received by: [Signature]		Company: APitt		Date/Time: 2-21-19			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time: 900			

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018



684-Atlanta

TestAmerica Pittsburgh

301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238-2907
phone 412.963.7058 fax 412.963.2468

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dawn Prell		Site Contact: Travis Martinez		Date:		COC No:												
Southern Company		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		_____ of _____ COCs												
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time		Filtered Sample (Y / N) Perform MS / MSD (Y / N) 6020 - Sb,As,Ba,Be,Cd,Cr,Co,Pb,LI,Mo,Se,Tl,7470A - Hg 300_ORGFM_28D-Fluoride 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC				Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sample Specific Notes:												
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS																		
(404) 506-7239 Phone		TAT if different from Below _____																		
FAX		<input type="checkbox"/> 2 weeks																		
Project Name: GPC Plant Scherer		<input type="checkbox"/> 1 week																		
Site: Ash Pond		<input type="checkbox"/> 2 days																		
P O # 166235018		<input type="checkbox"/> 1 day																		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	6020 - Sb,As,Ba,Be,Cd,Cr,Co,Pb,LI,Mo,Se,Tl,7470A - Hg	300_ORGFM_28D-Fluoride	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC										
SGWA-1	02/18/19	15:20	G	GW	3	N		1	1	1										1 x 1/2 gallon radium
SGWA-2	02/18/19	15:00	G	GW	3	N		1	1	1										1 x 1/2 gallon radium
SGWA-4	02/18/19	15:48	G	GW	4	N		1	1	2										
FB-1	02/18/19	16:30	G	W	4	N		1	1	2										
SGWA-3	02/19/19	09:35	G	GW	4	N		1	1	2										
SGWA-5	02/19/19	15:40	G	GW	4	N		1	1	2										
SGWA-24	02/19/19	09:47	G	GW	4	N		1	1	2										
SGWA-25	02/19/19	11:35	G	GW	4	N		1	1	2										
SGWC-22	02/19/19	14:10	G	GW	4	N		1	1	2										
SGWC-23	02/19/19	12:41	G	GW	4	N		1	1	2										
EB-1	02/19/19	12:38	G	W	4	N		1	1	2										
DUP-1	02/19/19	--	G	GW	4	N		1	1	2										
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								4	1	4										
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)												
<input checked="" 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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months												
Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.																				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:				Cooler Temp. (°C): Obs'd:				Corr'd:				Therm ID No.:				
Relinquished by: <i>Travis Martinez</i>				Company: <i>Gold</i>				Date/Time: <i>2-20-19/0800</i>				Received by: <i>[Signature]</i>				Company: <i>2-20-19</i>				
Relinquished by: <i>[Signature]</i>				Company: <i>2-20-19</i>				Date/Time: <i>11/18</i>				Received by: <i>[Signature]</i>				Company: <i>[Signature]</i>				
Relinquished by:				Company:				Date/Time:				Received in Laboratory by:				Company: <i>[Signature]</i>				

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018



TestAmerica Pittsburgh

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Pittsburgh, PA 15238-2907
phone 412.963.7058 fax 412.963.2468

681-Atlanta

Chain of Custody Record



Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dawn Prell		Site Contact: Travis Martinez		Date:		COC No:	
Southern Company		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		_____ of _____ COCs	
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time							
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS							
(404) 506-7239 Phone		TAT if different from Below _____							
FAX		<input type="checkbox"/> 2 weeks							
Project Name: GPC Plant Scherer		<input type="checkbox"/> 1 week							
Site: Ash Pond		<input type="checkbox"/> 2 days							
P O # 166235018		<input type="checkbox"/> 1 day							

Sampler: _____

For Lab Use Only:

Walk-in Client: _____

Lab Sampling: _____

Job / SDG No.: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform. MS / MSD (Y/N)	Analytes										Sample Specific Notes:				
								6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se,Tl, 7470A - Hg	300_ORGFM_28D-Fluoride	9315_Ra226, 9320_Ra228, Ra226/Ra228_GFPC												
SGWA-1	02/18/19	15:20	G	GW	3	N		1	1	1											1 x 1/2 gallon radium	
SGWA-2	02/18/19	15:00	G	GW	3	N		1	1	1												1 x 1/2 gallon radium
SGWA-4	02/18/19	15:48	G	GW	4	N		1	1	2												
FB-1	02/18/19	16:30	G	W	4	N		1	1	2												
SGWA-3	02/19/19	09:35	G	GW	4	N		1	1	2												
SGWA-5	02/19/19	15:40	G	GW	4	N		1	1	2												
SGWA-24	02/19/19	09:47	G	GW	4	N		1	1	2												
SGWA-25	02/19/19	11:35	G	GW	4	N		1	1	2												
SGWC-22	02/19/19	14:10	G	GW	4	N		1	1	2												
SGWC-23	02/19/19	12:41	G	GW	4	N		1	1	2												
EB-1	02/19/19	12:38	G	W	4	N		1	1	2												
DUP-1	02/19/19	--	G	GW	4	N		1	1	2												

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:	
Relinquished by: <i>Travis Martinez</i>	Company: <i>Goldor</i>	Date/Time: <i>2-20-19 0800</i>	Received by: <i>[Signature]</i>	Company: <i>2-20-19</i>	Date/Time: <i>0800</i>				
Relinquished by: <i>[Signature]</i>	Company: <i>2-20-19 1118</i>	Date/Time: _____	Received by: <i>[Signature]</i>	Company: <i>TPIH</i>	Date/Time: <i>2-21-19</i>				
Relinquished by: _____	Company: _____	Date/Time: _____	Received in Laboratory by: _____	Company: _____	Date/Time: <i>900</i>				



TestAmerica Pittsburgh

301 Alpha Drive
 RIDC Park
 Pittsburgh, PA 15238-2907
 phone 412.963.7058 fax 412.963.2468

681-Atlanta

Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: Dawn Prael		Site Contact: Travis Martinez		Date:		COC No.:					
Southern Company		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		of COCs					
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time								Sampler:			
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS		<input type="checkbox"/> WORKING DAYS		Perform MS/MSD (Y/N) 8020 - Sb,As,Ba,Cd,Cr,Cu,Pb,LI,Mo,Sa, H, 7470A - Hg 300_ORGFM_290-Fluoride 9315_Re226_9320_Re228, Re228Re228_GFPIC		Walk-in Client: Lab Sampling:		Job / SDG No.:			
(404) 506-7239 Phone		TAT if different from Below											
FAX		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week									
Project Name: GPC Plant Scherer		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day									
Site: Ash Pond													
P O # 166235018													
Sample Identification		Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Filtered	Performed	MS/MSD	Y/N	Sample Specific Notes:		
SGWA-1		02/18/19	15:20	G	GW	3	N		1	1	1	1 x 1/2 gallon radium	
SGWA-2		02/18/19	15:00	G	GW	3	N		1	1	1	1 x 1/2 gallon radium	
SGWA-4		02/18/19	15:48	G	GW	4	N		1	1	2		
FB-1		02/18/19	16:30	G	W	4	N		1	1	2		
SGWA-3		02/19/19	09:35	G	GW	4	N		1	1	2		
SGWA-5		02/19/19	15:40	G	GW	4	N		1	1	2		
SGWA-24		02/19/19	09:47	G	GW	4	N		1	1	2		
SGWA-25		02/19/19	11:35	G	GW	4	N		1	1	2		
SGWC-22		02/19/19	14:10	G	GW	4	N		1	1	2		
SGWC-23		02/19/19	12:41	G	GW	4	N		1	1	2		
EB-1		02/19/19	12:38	G	W	4	N		1	1	2		
DUP-1		02/19/19	-	G	GW	4	N		1	1	2		
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3; 5=NaOH, 6= Other													
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.												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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months	
Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:					
Relinquished by: <i>Travis Martinez</i>		Company: <i>Goldo</i>		Date/Time: <i>2-20-19/0800</i>		Received by: <i>[Signature]</i>		Company: <i>2-20-19</i>		Date/Time: <i>0800</i>			
Relinquished by: <i>[Signature]</i>		Company: <i>2-20-19</i>		Date/Time: <i>918</i>		Received by: <i>[Signature]</i>		Company: <i>TAPIT</i>		Date/Time: <i>2-21-19</i>			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time: <i>900</i>			

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018





180-86907 Waybill

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

59469-434 R112 Exp 10/19

This package conforms to 49 CFR

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE

SHIP DATE: 20FEB19
ACT WGT: 56.15 LB
CAD: 859116/CAPE3211

NORCROSS, GA 30093
UNITED STATES US

RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068

REF: SOUTHERN CO



FedEx
Express



THU - 21 FEB 3:00P
STANDARD OVERNIGHT

TRK# 4651 0080 6300
0201

NA AGCA

15238
PA-US PIT

Uncorrected temp _____
Thermometer ID _____

CF Q Initials B

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



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TestAmerica

TELEPHONE
ENVIRONMENTAL TESTING

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

1215 N IDA MULA (678) 968-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
500 MCCONOUGH DRIVE
MORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 20FEB19
ACTWGT: 53.90 LB
CAD: 859116/CAFE321

TO SAMPLE RECEIVING
AT PITTSBURGH
1520 PHA DRIVE
PITTSBURGH, PA 15206

LB 3.00P
OVERNIGHT
15206
PA-US PIT

Uncorrected temp 3.4 °C
Thermometer ID 10
CF 0 Initials JB

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



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TestAmerica

ENVIRONMENTAL TESTING

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
722352

UNION LA (67)
OJIA R
ATLANTA 91
UNION DRIVE
GA 30093
SUS

SHIP DATE: 20FEB19
ACTWT: 58.90 LB
CAD: 859116/CAFE3211

BILL RECIPIENT

RECEIVED
PITTSBURGH
ALPHA DRIVE
PARK
PITTSBURGH PA
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U - 21 FEB 3:00P
STANDARD OVERNIGHT

15238
PA-US PIT

Uncol
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TestAmerica Pittsburgh

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

Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving		Phone:		Bortot, Veronica		E-Mail: veronica.bortot@testamericainc.com		180-356909.1	
Company: TestAmerica Laboratories, Inc.		Address: 13715 Rider Trail North,		Due Date Requested: 3/5/2019		Analysis Requested		Page: Page 1 of 2	
City: Earth City		State, Zip: MO, 63045		TAT Requested (days):		Job #: 180-86907-1		Preservation Codes:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Email:		PO #:		A - HCL		M - Hexane	
Project Name: CCR - Plant Scherer		Site: CCR Plant Scherer		Project #: 18019884		B - NaOH		N - None	
SSOW#:		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		C - Zn Acetate		O - AsNaO2	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	
SGWA-1 (180-86907-1)		2/18/19		15:20 Eastern		Water		D - Nitric Acid	
SGWA-2 (180-86907-2)		2/18/19		15:00 Eastern		Water		P - Na2O4S	
SGWA-4 (180-86907-3)		2/18/19		15:48 Eastern		Water		Q - Na2SO3	
FB-1 (180-86907-4)		2/18/19		16:30 Eastern		Water		R - Na2S2O3	
SGWA-3 (180-86907-5)		2/19/19		09:35 Eastern		Water		S - H2SO4	
SGWA-5 (180-86907-6)		2/19/19		15:40 Eastern		Water		T - TSP Dodecahydrate	
SGWA-24 (180-86907-7)		2/19/19		09:47 Eastern		Water		U - Acetone	
SGWA-25 (180-86907-8)		2/19/19		11:35 Eastern		Water		V - MCAA	
SGWC-22 (180-86907-9)		2/19/19		14:10 Eastern		Water		W - pH 4-5	
Special Instructions/Note:		Total Number of containers		9315_Ra226/PrecSep_21 Standard Target List		9320_Ra228/PrecSep_0 Standard Target List		Ra228Ra228_GFPC	
SGWA-1 (180-86907-1)		1		X		X		X	
SGWA-2 (180-86907-2)		1		X		X		X	
SGWA-4 (180-86907-3)		2		X		X		X	
FB-1 (180-86907-4)		2		X		X		X	
SGWA-3 (180-86907-5)		2		X		X		X	
SGWA-5 (180-86907-6)		2		X		X		X	
SGWA-24 (180-86907-7)		2		X		X		X	
SGWA-25 (180-86907-8)		2		X		X		X	
SGWC-22 (180-86907-9)		2		X		X		X	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		<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:	
Date/Time:		Time:	
Company:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 2-23-19 17:00	
Date/Time:		Company: <i>[Signature]</i>	
Company:		Received by: <i>[Signature]</i>	
Date/Time:		Date/Time: 2-23-19 08:00	
Company:		Company: <i>[Signature]</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	

Page 32 of 34

3/18/2019



TestAmerica Pittsburgh

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

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Form with sections: Client Information, Analysis Requested, Sample Identification, Possible Hazard Identification, Sample Disposal, Relinquished by, and Cooler Temperature. Includes a table for sample tracking with columns for sample ID, date, time, matrix, and various analysis methods.



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86907-1

SDG Number: Ash

Login Number: 86907

List Number: 1

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-86907-2

TestAmerica Sample Delivery Group: Ash

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/31/2019 7:56:05 AM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

Table of Contents

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Job ID: 180-86907-2

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative 180-86907-2

Comments

No additional comments.

Receipt

The samples were received on 2/21/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.6° C, 2.7° C, 3.1° C and 3.4° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

RAD

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-417029

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.

SGWA-1 (180-86907-1), SGWA-2 (180-86907-2), SGWA-4 (180-86907-3), FB-1 (180-86907-4), SGWA-3 (180-86907-5), SGWA-5 (180-86907-6), SGWA-24 (180-86907-7), SGWA-25 (180-86907-8), (LCS 160-417029/1-A), (MB 160-417029/23-A), (550-117944-F-7-C) and (550-117944-F-7-D DU)

Method(s) 903.0, 9315: Radium-226 Prep Batch 160-417278

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.

SGWC-22 (180-86907-9), SGWC-23 (180-86907-10), EB-1 (180-86907-11), DUP-1 (180-86907-12), (LCS 160-417278/1-A), (MB 160-417278/26-A), (480-149401-C-1-A), (480-149401-D-1-A MS) and (480-149401-D-1-B MSD)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-417068

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.

SGWA-1 (180-86907-1), SGWA-2 (180-86907-2), SGWA-4 (180-86907-3), FB-1 (180-86907-4), SGWA-3 (180-86907-5), SGWA-5 (180-86907-6), SGWA-24 (180-86907-7), SGWA-25 (180-86907-8), (LCS 160-417068/1-A), (MB 160-417068/23-A), (550-117944-F-7-E) and (550-117944-F-7-F DU)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-417068

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

SGWA-1 (180-86907-1), SGWA-2 (180-86907-2), SGWA-4 (180-86907-3), FB-1 (180-86907-4), SGWA-3 (180-86907-5), SGWA-5 (180-86907-6), SGWA-24 (180-86907-7), SGWA-25 (180-86907-8), (LCS 160-417068/1-A), (MB 160-417068/23-A), (550-117944-F-7-E) and (550-117944-F-7-F DU)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-417297

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.

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Job ID: 180-86907-2 (Continued)

Laboratory: TestAmerica Pittsburgh (Continued)

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

SGWC-22 (180-86907-9), SGWC-23 (180-86907-10), EB-1 (180-86907-11), DUP-1 (180-86907-12), (LCS 160-417297/1-A), (MB 160-417297/26-A), (480-149401-C-1-B), (480-149401-D-1-C MS) and (480-149401-D-1-D MSD)

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

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19 *
Florida	NELAP	4	E87689	06-30-19
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19 *
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20

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

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-86907-1	SGWA-1	Water	02/18/19 15:20	02/21/19 09:00
180-86907-2	SGWA-2	Water	02/18/19 15:00	02/21/19 09:00
180-86907-3	SGWA-4	Water	02/18/19 15:48	02/21/19 09:00
180-86907-4	FB-1	Water	02/18/19 16:30	02/21/19 09:00
180-86907-5	SGWA-3	Water	02/19/19 09:35	02/21/19 09:00
180-86907-6	SGWA-5	Water	02/19/19 15:40	02/21/19 09:00
180-86907-7	SGWA-24	Water	02/19/19 09:47	02/21/19 09:00
180-86907-8	SGWA-25	Water	02/19/19 11:35	02/21/19 09:00
180-86907-9	SGWC-22	Water	02/19/19 14:10	02/21/19 09:00
180-86907-10	SGWC-23	Water	02/19/19 12:41	02/21/19 09:00
180-86907-11	EB-1	Water	02/19/19 12:38	02/21/19 09:00
180-86907-12	DUP-1	Water	02/19/19 00:00	02/21/19 09:00

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWA-1
Date Collected: 02/18/19 15:20
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-1
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			999.44 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.44 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWA-2
Date Collected: 02/18/19 15:00
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-2
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			1000.49 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.49 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWA-4
Date Collected: 02/18/19 15:48
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-3
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			999.44 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.44 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-1
Date Collected: 02/18/19 16:30
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-4
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			1000.28 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: FB-1

Lab Sample ID: 180-86907-4

Date Collected: 02/18/19 16:30

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.28 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWA-3

Lab Sample ID: 180-86907-5

Date Collected: 02/19/19 09:35

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.77 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.77 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWA-5

Lab Sample ID: 180-86907-6

Date Collected: 02/19/19 15:40

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.80 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.80 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.53 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420416	03/21/19 13:23	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.53 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419263	03/14/19 15:48	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWA-25

Lab Sample ID: 180-86907-8

Date Collected: 02/19/19 11:35

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.84 mL	1.0 g	417029	02/27/19 09:30	LTC	TAL SL
Total/NA	Analysis	9315		1			420408	03/21/19 13:25	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.84 mL	1.0 g	417068	02/27/19 14:24	LTC	TAL SL
Total/NA	Analysis	9320		1			419264	03/14/19 15:43	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-22

Lab Sample ID: 180-86907-9

Date Collected: 02/19/19 14:10

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.56 mL	1.0 g	417278	02/28/19 09:21	LTC	TAL SL
Total/NA	Analysis	9315		1			420715	03/22/19 05:50	KLS	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.56 mL	1.0 g	417297	02/28/19 10:21	LTC	TAL SL
Total/NA	Analysis	9320		1			419261	03/14/19 16:19	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-23

Lab Sample ID: 180-86907-10

Date Collected: 02/19/19 12:41

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.10 mL	1.0 g	417278	02/28/19 09:21	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWC-23

Lab Sample ID: 180-86907-10

Date Collected: 02/19/19 12:41

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420715	03/22/19 05:50	KLS	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.10 mL	1.0 g	417297	02/28/19 10:21	LTC	TAL SL
Total/NA	Analysis	9320		1			419261	03/14/19 16:20	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-1

Lab Sample ID: 180-86907-11

Date Collected: 02/19/19 12:38

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.44 mL	1.0 g	417278	02/28/19 09:21	LTC	TAL SL
Total/NA	Analysis	9315		1			420715	03/22/19 05:51	KLS	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.44 mL	1.0 g	417297	02/28/19 10:21	LTC	TAL SL
Total/NA	Analysis	9320		1			419261	03/14/19 16:20	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-1

Lab Sample ID: 180-86907-12

Date Collected: 02/19/19 00:00

Matrix: Water

Date Received: 02/21/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.17 mL	1.0 g	417278	02/28/19 09:21	LTC	TAL SL
Total/NA	Analysis	9315		1			420715	03/22/19 05:51	KLS	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.17 mL	1.0 g	417297	02/28/19 10:21	LTC	TAL SL
Total/NA	Analysis	9320		1			419261	03/14/19 16:20	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Analyst References:

Lab: TAL SL

Batch Type: Prep

LTC = Logan Curtright

Batch Type: Analysis

CDR = Conrad Reuscher

KLS = Kody Saulters

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWA-1
Date Collected: 02/18/19 15:20
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0885	U	0.0827	0.0831	1.00	0.128	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.274	U	0.222	0.223	1.00	0.350	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	84.1		40 - 110					02/27/19 14:24	03/14/19 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.362		0.237	0.238	5.00	0.350	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWA-2
Date Collected: 02/18/19 15:00
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0700	U	0.0622	0.0625	1.00	0.0906	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.180	U	0.203	0.204	1.00	0.334	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	86.7		40 - 110					02/27/19 14:24	03/14/19 15:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWA-2
Date Collected: 02/18/19 15:00
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-2
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.250	U	0.212	0.213	5.00	0.334	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWA-4
Date Collected: 02/18/19 15:48
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0112	U	0.0563	0.0563	1.00	0.110	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00859	U	0.211	0.211	1.00	0.380	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	83.7		40 - 110					02/27/19 14:24	03/14/19 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0112	U	0.218	0.218	5.00	0.380	pCi/L		03/28/19 15:47	1

Client Sample ID: FB-1
Date Collected: 02/18/19 16:30
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0425	0.0425	1.00	0.0929	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: FB-1

Date Collected: 02/18/19 16:30

Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-4

Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00891	U	0.207	0.207	1.00	0.372	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	81.1		40 - 110					02/27/19 14:24	03/14/19 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.00891	U	0.211	0.211	5.00	0.372	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWA-3

Date Collected: 02/19/19 09:35

Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0335	U	0.0521	0.0522	1.00	0.0905	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.197	U	0.199	0.200	1.00	0.323	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	85.2		40 - 110					02/27/19 14:24	03/14/19 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.231	U	0.206	0.207	5.00	0.323	pCi/L		03/28/19 15:47	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWA-5

Lab Sample ID: 180-86907-6

Date Collected: 02/19/19 15:40

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0352	U	0.0592	0.0592	1.00	0.104	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00883	U	0.208	0.208	1.00	0.373	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	83.0		40 - 110					02/27/19 14:24	03/14/19 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0440	U	0.216	0.216	5.00	0.373	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0220	U	0.0540	0.0541	1.00	0.101	pCi/L	02/27/19 09:30	03/21/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/27/19 09:30	03/21/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.118	U	0.235	0.236	1.00	0.401	pCi/L	02/27/19 14:24	03/14/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/27/19 14:24	03/14/19 15:48	1
Y Carrier	82.2		40 - 110					02/27/19 14:24	03/14/19 15:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWA-24

Lab Sample ID: 180-86907-7

Date Collected: 02/19/19 09:47

Matrix: Water

Date Received: 02/21/19 09:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.140	U	0.241	0.242	5.00	0.401	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWA-25

Lab Sample ID: 180-86907-8

Date Collected: 02/19/19 11:35

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0213	U	0.0532	0.0533	1.00	0.0990	pCi/L	02/27/19 09:30	03/21/19 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/27/19 09:30	03/21/19 13:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.298	U	0.224	0.225	1.00	0.349	pCi/L	02/27/19 14:24	03/14/19 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/27/19 14:24	03/14/19 15:43	1
Y Carrier	83.7		40 - 110					02/27/19 14:24	03/14/19 15:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.320	U	0.230	0.231	5.00	0.349	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-22

Lab Sample ID: 180-86907-9

Date Collected: 02/19/19 14:10

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0643	U	0.0706	0.0708	1.00	0.114	pCi/L	02/28/19 09:21	03/22/19 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/28/19 09:21	03/22/19 05:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: SGWC-22

Lab Sample ID: 180-86907-9

Date Collected: 02/19/19 14:10

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.468		0.278	0.281	1.00	0.420	pCi/L	02/28/19 10:21	03/14/19 16:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/28/19 10:21	03/14/19 16:19	1
Y Carrier	75.1		40 - 110					02/28/19 10:21	03/14/19 16:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.532		0.287	0.290	5.00	0.420	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-23

Lab Sample ID: 180-86907-10

Date Collected: 02/19/19 12:41

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.301		0.100	0.104	1.00	0.0827	pCi/L	02/28/19 09:21	03/22/19 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/28/19 09:21	03/22/19 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0730	U	0.236	0.236	1.00	0.433	pCi/L	02/28/19 10:21	03/14/19 16:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/28/19 10:21	03/14/19 16:20	1
Y Carrier	80.4		40 - 110					02/28/19 10:21	03/14/19 16:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.301	U	0.256	0.258	5.00	0.433	pCi/L		03/28/19 15:47	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Client Sample ID: EB-1

Lab Sample ID: 180-86907-11

Date Collected: 02/19/19 12:38

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00362	U	0.0504	0.0504	1.00	0.106	pCi/L	02/28/19 09:21	03/22/19 05:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/28/19 09:21	03/22/19 05:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0835	U	0.269	0.269	1.00	0.466	pCi/L	02/28/19 10:21	03/14/19 16:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/28/19 10:21	03/14/19 16:20	1
Y Carrier	76.6		40 - 110					02/28/19 10:21	03/14/19 16:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0835	U	0.274	0.274	5.00	0.466	pCi/L		03/28/19 15:47	1

Client Sample ID: DUP-1

Lab Sample ID: 180-86907-12

Date Collected: 02/19/19 00:00

Matrix: Water

Date Received: 02/21/19 09:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0710	U	0.0598	0.0601	1.00	0.0861	pCi/L	02/28/19 09:21	03/22/19 05:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/28/19 09:21	03/22/19 05:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.359	U	0.251	0.253	1.00	0.390	pCi/L	02/28/19 10:21	03/14/19 16:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/28/19 10:21	03/14/19 16:20	1
Y Carrier	79.3		40 - 110					02/28/19 10:21	03/14/19 16:20	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
 SDG: Ash

Client Sample ID: DUP-1
Date Collected: 02/19/19 00:00
Date Received: 02/21/19 09:00

Lab Sample ID: 180-86907-12
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.430		0.258	0.260	5.00	0.390	pCi/L		03/28/19 15:47	1

- 1
- 2
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- 11
- 12
- 13

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-417029/23-A
Matrix: Water
Analysis Batch: 420408

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417029

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01869	U	0.0490	0.0490	1.00	0.0931	pCi/L	02/27/19 09:30	03/21/19 13:25	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	96.2		40 - 110	02/27/19 09:30	03/21/19 13:25	1				

Lab Sample ID: LCS 160-417029/1-A
Matrix: Water
Analysis Batch: 420407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417029

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.737		1.03	1.00	0.0835	pCi/L	86	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	96.8		40 - 110	02/27/19 09:30	03/21/19 13:25	1			

Lab Sample ID: 550-117944-F-7-D DU
Matrix: Water
Analysis Batch: 420416

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 417029

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.687		0.7672		0.259	1.00	0.244	pCi/L	0.16	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	95.0		40 - 110	02/28/19 09:21	03/22/19 05:56	1				

Lab Sample ID: MB 160-417278/26-A
Matrix: Water
Analysis Batch: 420716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417278

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03049	U	0.0484	0.0485	1.00	0.0843	pCi/L	02/28/19 09:21	03/22/19 05:56	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	104		40 - 110	02/28/19 09:21	03/22/19 05:56	1				

Lab Sample ID: LCS 160-417278/1-A
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417278

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.73		1.11	1.00	0.0897	pCi/L	95	68 - 137

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

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

Lab Sample ID: LCS 160-417278/1-A
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417278

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	104		40 - 110

Lab Sample ID: 480-149401-D-1-A MS
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 417278

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.428		11.3	9.709		1.03	1.00	0.0856	pCi/L	82	75 - 138

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	96.5		40 - 110

Lab Sample ID: 480-149401-D-1-B MSD
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 417278

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.428		11.3	10.67		1.11	1.00	0.101	pCi/L	90	75 - 138	0.45	1

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	99.4		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-417068/23-A
Matrix: Water
Analysis Batch: 419264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417068

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1040	U	0.220	0.220	1.00	0.377	pCi/L	02/27/19 14:24	03/14/19 15:44	1

	MB	MB	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	96.2		40 - 110
Y Carrier	83.0		40 - 110

	Prepared	Analyzed	Dil Fac
Ba Carrier	02/27/19 14:24	03/14/19 15:44	1
Y Carrier	02/27/19 14:24	03/14/19 15:44	1

Lab Sample ID: LCS 160-417068/1-A
Matrix: Water
Analysis Batch: 419263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417068

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.40	9.112		1.08	1.00	0.415	pCi/L	97	56 - 140

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

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

Lab Sample ID: LCS 160-417068/1-A
Matrix: Water
Analysis Batch: 419263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417068

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	78.5		40 - 110

Lab Sample ID: 550-117944-F-7-F DU
Matrix: Water
Analysis Batch: 419263

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 417068

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.847		0.5371	U	0.456	1.00	0.719	pCi/L	0.32	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.0		40 - 110
Y Carrier	80.7		40 - 110

Lab Sample ID: MB 160-417297/26-A
Matrix: Water
Analysis Batch: 419264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417297

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1855	U	0.202	0.203	1.00	0.331	pCi/L	02/28/19 10:21	03/14/19 15:50	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110	02/28/19 10:21	03/14/19 15:50	1
Y Carrier	84.9		40 - 110	02/28/19 10:21	03/14/19 15:50	1

Lab Sample ID: LCS 160-417297/1-A
Matrix: Water
Analysis Batch: 419261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417297

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.40	8.895		1.09	1.00	0.414	pCi/L	95	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	70.3		40 - 110

Lab Sample ID: 480-149401-D-1-C MS
Matrix: Water
Analysis Batch: 419261

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 417297

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.859		9.39	9.446		1.14	1.00	0.503	pCi/L	91	45 - 150

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
 SDG: Ash

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

Lab Sample ID: 480-149401-D-1-C MS
 Matrix: Water
 Analysis Batch: 419261

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 417297

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	96.5		40 - 110
Y Carrier	78.1		40 - 110

Lab Sample ID: 480-149401-D-1-D MSD
 Matrix: Water
 Analysis Batch: 419261

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 417297

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.859		9.39	8.976		1.07	1.00	0.408	pCi/L	86	45 - 150	0.21	1

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	99.4		40 - 110
Y Carrier	80.7		40 - 110

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86907-2
SDG: Ash

Rad

Prep Batch: 417029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total/NA	Water	PrecSep-21	
180-86907-2	SGWA-2	Total/NA	Water	PrecSep-21	
180-86907-3	SGWA-4	Total/NA	Water	PrecSep-21	
180-86907-4	FB-1	Total/NA	Water	PrecSep-21	
180-86907-5	SGWA-3	Total/NA	Water	PrecSep-21	
180-86907-6	SGWA-5	Total/NA	Water	PrecSep-21	
180-86907-7	SGWA-24	Total/NA	Water	PrecSep-21	
180-86907-8	SGWA-25	Total/NA	Water	PrecSep-21	
MB 160-417029/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-417029/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
550-117944-F-7-D DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 417068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-1	SGWA-1	Total/NA	Water	PrecSep_0	
180-86907-2	SGWA-2	Total/NA	Water	PrecSep_0	
180-86907-3	SGWA-4	Total/NA	Water	PrecSep_0	
180-86907-4	FB-1	Total/NA	Water	PrecSep_0	
180-86907-5	SGWA-3	Total/NA	Water	PrecSep_0	
180-86907-6	SGWA-5	Total/NA	Water	PrecSep_0	
180-86907-7	SGWA-24	Total/NA	Water	PrecSep_0	
180-86907-8	SGWA-25	Total/NA	Water	PrecSep_0	
MB 160-417068/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-417068/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
550-117944-F-7-F DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 417278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-9	SGWC-22	Total/NA	Water	PrecSep-21	
180-86907-10	SGWC-23	Total/NA	Water	PrecSep-21	
180-86907-11	EB-1	Total/NA	Water	PrecSep-21	
180-86907-12	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-417278/26-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-417278/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
480-149401-D-1-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
480-149401-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 417297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86907-9	SGWC-22	Total/NA	Water	PrecSep_0	
180-86907-10	SGWC-23	Total/NA	Water	PrecSep_0	
180-86907-11	EB-1	Total/NA	Water	PrecSep_0	
180-86907-12	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-417297/26-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-417297/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
480-149401-D-1-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
480-149401-D-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Chain of Custody Record

681-Atlanta

301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238-2907
phone 412.963.7058 fax 412.963.2468

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other: _____
 Project Manager: Dawn Prell
 Lab Contact: Veronica Bortol
 Carrier: _____
 Date: _____
 COC No. _____ of _____ COCs

Southern Company
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA, 30308
 (404) 506-7239
 Phone
 FAX
 Project Name: GPC Plant Scherer
 Site: Ash Pond
 P O # 166235018
 Analysis Turnaround Time
 CALENDAR DAYS
 WORKING DAYS
 TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day
 Sample Date
 Sample Time
 Sample Type (C=Comp, G=Grab)
 Matrix
 # of Cont.
 Filtered Sample (Y/N)
 Perform MS / MSD (Y/N)
 6020 - Sb,As,Ba,Be,Cd,Cr,Co,Pb,LI,Mo,Se,
 I, 7470A - Hg
 300_ORGFM_280-Fluoride
 9315_Raz26_3320_Raz28,
 Raz26Raz228_GFPIC
 Sample Specific Notes:
 1 x 1/2 gallon radium
 1 x 1/2 gallon radium
 Job / SDG No.:
 For Lab Use Only:
 Walk-in Client:
 Lab Sampling:
 Sampler:
 of _____ COCs

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	1	2	3	4	5	6	7	8	9	10	11	12	13		
SGWA-1	02/18/19	15:20	G	GW	3	N																
SGWA-2	02/18/19	15:00	G	GW	3	N																
FB-1	02/18/19	16:30	G	W	4	N																
SGWA-3	02/19/19	09:35	G	GW	4	N																
SGWA-5	02/19/19	15:40	G	GW	4	N																
SGWA-24	02/19/19	09:47	G	GW	4	N																
SGWA-25	02/19/19	11:35	G	GW	4	N																
SGWC-22	02/19/19	14:10	G	GW	4	N																
SGWC-23	02/19/19	12:41	G	GW	4	N																
EB-1	02/19/19	12:38	G	W	4	N																
DUP-1	02/19/19	-	G	GW	4	N																

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other
 Possible Hazard Identification:
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.
 Return to Client Disposal by Lab Archive for _____ Months
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Relinquished by: <u>Travis Martinez</u> Date/Time: <u>2-20-19/0800</u> Company: <u>GPC Plant</u>	Relinquished by: <u>[Signature]</u> Date/Time: <u>2-20-19</u> Company: <u>[Signature]</u>	Relinquished by: <u>[Signature]</u> Date/Time: <u>2-20-19</u> Company: <u>[Signature]</u>	Relinquished by: <u>[Signature]</u> Date/Time: <u>2-20-19</u> Company: <u>[Signature]</u>
Custody Seal No.: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Temp. (°C): Obs'd: _____ Cord: _____ Therm ID No.: _____	Custody Seals Intact: _____	

Chain of Custody Record

681-Atlanta

Regulatory Program: DW NPDES RCRA Other

Client Contact: Southern Company
Project Manager: Dawn Prell
Tel/Fax: 248-536-5445
241 Ralph McGill Blvd SE B10185
 Atlanta, GA, 30308
 (404) 506-7239
 Phone
 FAX
 Project Name: GPC Plant Scherer
 Site: Ash Pond
 P O # 166235018

Analysis Turnaround Time
 TAT if different from Below
 1 day
 2 days
 1 week
 2 weeks
 CALENDAR DAYS
 WORKING DAYS

Sample Identification

Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	6020 - Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,Li,Mo,Sa,Tl,7470A-Hg	300_ORGFM_28D-Fluoride	9315_Ra226_9320_Ra228_Ra226Ra228_GFPFC
02/18/19	15:20	G	GW	3	N		1	1	1
02/18/19	15:48	G	GW	4	N		1	1	1
02/18/19	16:30	G	W	4	N		1	1	2
02/19/19	09:35	G	GW	4	N		1	1	2
02/19/19	11:35	G	GW	4	N		1	1	2
02/19/19	14:10	G	GW	4	N		1	1	2
02/19/19	12:41	G	GW	4	N		1	1	2
02/19/19	12:38	G	W	4	N		1	1	2
02/19/19	--	G	GW	4	N		1	1	2
DUP-1									

Sample Specific Notes:
 1 x 1/2 gallon radium
 1 x 1/2 gallon radium

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification:
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: Attorney Client Privilege, Report J-Flags.

Customary Seal No.: No Yes No

Relinquished by: Travis Martinez
Company: Golden
Date/Time: 2-20-19/0800

Relinquished by: [Signature]
Company: [Signature]
Date/Time: 2-20-19

Relinquished by: [Signature]
Company: [Signature]
Date/Time: 2-21-19

Relinquished by: [Signature]
Company: [Signature]
Date/Time: 9/20

COC No.: _____
Date: _____
Carrier: _____
Sampler: _____
For Lab Use Only: Walk-in Client: _____
 Lab Sampling: _____
 Job / SDG No.: _____

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018

Chain of Custody Record

681-Atlanta

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238-2907

phone 412.963.7058 fax 412.963.2468

TestAmerica Laboratories, Inc.

COC No. _____

Date: _____

Carrier: _____

Sampler: _____

For Lab Use Only: _____

Walk-in Client: _____

Lab Sampling: _____

Job / SDG No.: _____

Sample Specific Notes: _____

1 x 1/2 gallon radium

1 x 1/2 gallon radium

1 x 1/2 gallon radium

1 x 1/2 gallon radium

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1 x 1/2 gallon radium

1 x 1/2 gallon radium

1 x 1/2 gallon radium

1 x 1/2 gallon radium

Regulatory Program: DW NPDES RCRA Other: _____

Site Contact: Travis Martinez
Lab Contact: Veronica Bortol

Tel/Fax: 248-536-5445
Southern Company
241 Ralph McGill Blvd SE B10185
Atlanta, GA, 30308
Phone (404) 506-7239
FAX
Project Name: GPC Plant Scherer
Site: Ash Pond
P O # 166235018

Sample Identification	Sample Date	Sample Time	Sample Type (c=Comp, g=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perforrn. MS / MSU (Y/N)	6020 - Sb,As,Ba,Be,Cd,Cr,Co,Pb,LI,Mo,Se,1,7,470A - Hg	300_ORGFM_28D-Fluoride	9315_Raz26_9320_Raz28_Raz26Raz228_GFPIC	Sample Specific Notes:
SGWA-1	02/18/19	15:20	G	GW	3	N					
SGWA-2	02/18/19	15:00	G	GW	3	N					1 x 1/2 gallon radium
FB-1	02/18/19	16:30	G	W	4	N					
SGWA-3	02/19/19	09:35	G	GW	4	N					
SGWA-5	02/19/19	15:40	G	GW	4	N					
SGWA-24	02/19/19	09:47	G	GW	4	N					
SGWA-25	02/19/19	11:35	G	GW	4	N					
SGWC-22	02/19/19	14:10	G	GW	4	N					
SGWC-23	02/19/19	12:41	G	GW	4	N					
EB-1	02/19/19	12:38	G	W	4	N					
DUP-1	02/19/19	--	G	GW	4	N					

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Special Instructions/OC Requirements & Comments: Attorney Client Privilege. Report J-Flags.

Custody Seal No.: _____
Custody Seals Intact: Yes No

Relinquished by: **Travis Martinez**
Company: **Golden**
Date/Time: **2-20-19/8:00**

Relinquished by: **Travis Martinez**
Company: **Golden**
Date/Time: **2-20-19/11:18**

Relinquished by: **Travis Martinez**
Company: **Golden**
Date/Time: **2-20-19/8:00**

Relinquished by: **Travis Martinez**
Company: **Golden**
Date/Time: **2-20-19/8:00**

Therm ID No.: _____
Cooler Temp. (°C): _____
Obs'd.: _____
Cor'd.: _____

Chain of Custody Record

681-A-111111

TestAmerica Pittsburgh

301 Alpha Drive
RIDC Park
Pittsburgh, PA 15239-2907
phone 412.963.7058 fax 412.963.2468

Client Contact
Southern Company
241 Ralph McGill Blvd SE B10185
Atlanta, GA, 30308
(404) 506-7239
Phone
FAX
Project Name: GPC Plant Scherer
Site: Ash Pond
P O # 166235018

Project Manager: Dawn Prall
Analysts Turnaround Time
 CALENDAR DAYS WORKING DAYS
TAT if different from Below

Sample Identification

Sample ID	Date	Sample Type	Matrix	Sample Type (Comp. Genly)	Matrix Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)
SGWA-1	02/18/19	15:20	GW	G	3	N	
SGWA-2	02/18/19	15:00	GW	G	3	N	
SGWA-4	02/18/19	15:48	GW	G	4	N	
FB-1	02/18/19	16:30	W	G	4	N	
SGWA-3	02/19/19	09:35	GW	G	4	N	
SGWA-5	02/19/19	15:40	GW	G	4	N	
SGWA-24	02/19/19	09:47	GW	G	4	N	
SGWA-25	02/19/19	11:35	GW	G	4	N	
SGWC-22	02/19/19	14:10	GW	G	4	N	
SGWC-23	02/19/19	12:41	GW	G	4	N	
EB-1	02/19/19	12:38	W	G	4	N	
DUP-1	02/19/19	--	GW	G	4	N	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/OC Requirements & Comments: Attorney Client Privilege: Report J-Flags.
 Return to Client Dispose by Lab Archive for Months

Custody Seals Intact: Yes No
Custody Seal No.:
Received by: Travis Martinez
Company: Golden
Date/Time: 2-20-19
Received in Laboratory by:
Company:
Date/Time: 2-20-19
Received by: Travis Martinez
Company: TestAmerica
Date/Time: 2-20-19

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018



180-86907 Waybill

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

59469-434 R112 Exp 10/19

This package conforms to 49 CFR

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE

SHIP DATE: 20FEB19
ACT WGT: 56.15 LB
CAD: 859116/CAPE3211

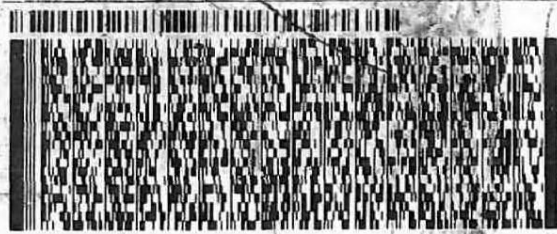
NORCROSS, GA 30093
UNITED STATES US

RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068

REF: SOUTHERN CO



FedEx
Express



THU - 21 FEB 3:00P
STANDARD OVERNIGHT

TRK# 4651 0080 6300
0201

NA AGCA

15238
PA-US PIT

Uncorrected temp _____
Thermometer ID _____

CF Q Initials B

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



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TestAmerica

TELEPHONE
ENVIRONMENTAL TESTING

PT-WI-SR-001-001 RITZ E.J. 2019

1215 N IDA MULA (678) 968-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
500 MCCONOUGH DRIVE
MORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 20FEB19
ACTWGT: 53.90 LB
CAD: 859116/CAFE321

TO SAMPLE RECEIVING
AT PITTSBURGH
1500 PHA DRIVE
PITTSBURGH, PA 15206

LB 3:00P
OVERNIGHT

15206
PA-US PIT

Uncorrected temp 3.4 °C
Thermometer ID 10
CF 0 Initials JB

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



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TestAmerica
AN ENVIRONMENTAL TESTING

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
722352

UNION LA (67)
OJIA R
ATLANTA 91
UNION DRIVE
GA 30093
S US

SHIP DATE: 20FEB19
ACTWT: 58.90 LB
CAD: 859116/CAFE3211

BILL RECIPIENT

RECEIVED
PITTSBURGH
ALPHA DRIVE
PARK
PITTSBURGH PA
THE N CO

3000/4240/01153

FedEx
Express
E
AN L05090811317

U - 21 FEB 3:00P
STANDARD OVERNIGHT

15238
PA-US PIT

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86907-2

SDG Number: Ash

Login Number: 86907

List Number: 1

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86907-2

SDG Number: Ash

Login Number: 86907

List Number: 2

Creator: Hellm, Michael

List Source: TestAmerica St. Louis

List Creation: 02/23/19 11:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	
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	18.0
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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86907-2

SDG Number: Ash

Login Number: 86907

List Number: 3

Creator: Hellm, Michael

List Source: TestAmerica St. Louis

List Creation: 02/23/19 11:57 AM

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.	N/A	
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	18.0
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-86954-1

TestAmerica Sample Delivery Group: Ash

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/18/2019 10:41:33 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Job ID: 180-86954-1

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-86954-1

Comments

No additional comments.

Receipt

The samples were received on 2/22/2019 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.5° C, 1.9° C, 1.9° C, 2.1° C, 2.3° C and 3.1° C.

Anions

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 above or in the Definitions/Glossary page.

- 1
- 2
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- 13

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
 SDG: Ash

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-86954-1	SGWC-6	Water	02/20/19 09:45	02/22/19 08:50
180-86954-2	SGWC-7	Water	02/20/19 11:00	02/22/19 08:50
180-86954-3	SGWC-8	Water	02/20/19 12:08	02/22/19 08:50
180-86954-4	SGWC-9	Water	02/20/19 09:13	02/22/19 08:50
180-86954-5	SGWC-10	Water	02/20/19 15:25	02/22/19 08:50
180-86954-6	SGWC-11	Water	02/20/19 11:09	02/22/19 08:50
180-86954-7	SGWC-12	Water	02/20/19 09:36	02/22/19 08:50
180-86954-8	SGWC-13	Water	02/20/19 10:05	02/22/19 08:50
180-86954-9	SGWC-14	Water	02/20/19 09:25	02/22/19 08:50
180-86954-10	FB-2	Water	02/20/19 13:25	02/22/19 08:50
180-86954-11	EB-2	Water	02/20/19 12:00	02/22/19 08:50
180-86954-12	DUP-2	Water	02/20/19 00:00	02/22/19 08:50
180-86954-13	SGWC-15	Water	02/20/19 11:36	02/22/19 08:50
180-86954-14	SGWC-16	Water	02/20/19 13:07	02/22/19 08:50
180-86954-15	SGWC-17	Water	02/20/19 13:15	02/22/19 08:50
180-86954-16	SGWC-18	Water	02/20/19 14:16	02/22/19 08:50
180-86954-17	SGWC-19	Water	02/20/19 15:56	02/22/19 08:50
180-86954-18	SGWC-20	Water	02/20/19 14:25	02/22/19 08:50
180-86954-19	SGWC-21	Water	02/20/19 09:54	02/22/19 08:50
180-86954-20	FB-3	Water	02/20/19 16:30	02/22/19 08:50
180-86954-21	EB-3	Water	02/20/19 16:15	02/22/19 08:50
180-86954-22	DUP-3	Water	02/20/19 00:00	02/22/19 08:50

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-6
Date Collected: 02/20/19 09:45
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			271929	03/05/19 07:08	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			271815	03/02/19 17:52	WTR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			271557	02/27/19 17:45	KAK	TAL PIT

Client Sample ID: SGWC-7
Date Collected: 02/20/19 11:00
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-2
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 300.0 R2.1 Instrument ID: CHICS2100B		1			271929	03/05/19 08:27	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			271815	03/02/19 17:56	WTR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			271557	02/27/19 17:48	KAK	TAL PIT

Client Sample ID: SGWC-8
Date Collected: 02/20/19 12:08
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-3
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 300.0 R2.1 Instrument ID: CHICS2100B		1			271929	03/05/19 08:43	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			271815	03/02/19 17:59	WTR	TAL PIT
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A Instrument ID: HGY		1			271557	02/27/19 17:49	KAK	TAL PIT

Client Sample ID: SGWC-9
Date Collected: 02/20/19 09:13
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-4
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 300.0 R2.1		1			271929	03/05/19 13:59	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-9

Lab Sample ID: 180-86954-4

Date Collected: 02/20/19 09:13

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 13:59	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:02	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 17:50	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-10

Lab Sample ID: 180-86954-5

Date Collected: 02/20/19 15:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 10:33	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:06	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 17:55	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-11

Lab Sample ID: 180-86954-6

Date Collected: 02/20/19 11:09

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 10:49	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:09	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 17:56	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 11:05	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 11:05	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:12	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 17:57	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-13

Lab Sample ID: 180-86954-8

Date Collected: 02/20/19 10:05

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 11:21	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:16	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 17:58	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-14

Lab Sample ID: 180-86954-9

Date Collected: 02/20/19 09:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 12:40	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:19	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 17:59	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: FB-2

Lab Sample ID: 180-86954-10

Date Collected: 02/20/19 13:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 09:30	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: FB-2

Lab Sample ID: 180-86954-10

Date Collected: 02/20/19 13:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 09:30	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:29	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:00	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: EB-2

Lab Sample ID: 180-86954-11

Date Collected: 02/20/19 12:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 06:52	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:32	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:01	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: DUP-2

Lab Sample ID: 180-86954-12

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 12:56	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:36	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:02	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-15

Lab Sample ID: 180-86954-13

Date Collected: 02/20/19 11:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 13:12	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-15

Lab Sample ID: 180-86954-13

Date Collected: 02/20/19 11:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 13:12	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:39	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:03	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-16

Lab Sample ID: 180-86954-14

Date Collected: 02/20/19 13:07

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 13:28	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:42	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:04	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-17

Lab Sample ID: 180-86954-15

Date Collected: 02/20/19 13:15

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 13:43	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:46	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:09	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-18

Lab Sample ID: 180-86954-16

Date Collected: 02/20/19 14:16

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 07:55	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-18

Lab Sample ID: 180-86954-16

Date Collected: 02/20/19 14:16

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271929	03/05/19 07:55	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:49	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:10	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-19

Lab Sample ID: 180-86954-17

Date Collected: 02/20/19 15:56

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 18:29	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:52	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:11	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-20

Lab Sample ID: 180-86954-18

Date Collected: 02/20/19 14:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 18:45	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 18:56	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:12	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 17:10	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 17:10	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 19:15	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:13	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: FB-3

Lab Sample ID: 180-86954-20

Date Collected: 02/20/19 16:30

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 16:39	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271510	02/27/19 12:08	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271815	03/02/19 19:19	WTR	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271461	02/27/19 09:04	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 18:14	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: EB-3

Lab Sample ID: 180-86954-21

Date Collected: 02/20/19 16:15

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 16:54	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271353	02/26/19 12:17	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271799	03/01/19 13:57	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271464	02/27/19 09:16	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 16:12	KAK	TAL PIT
Instrument ID: HGY										

Client Sample ID: DUP-3

Lab Sample ID: 180-86954-22

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 19:01	MJH	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: DUP-3

Lab Sample ID: 180-86954-22

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			271818	03/04/19 19:01	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	271353	02/26/19 12:17	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			271799	03/01/19 14:00	RSK	TAL PIT
Instrument ID: A										
Total/NA	Prep	7470A			50 mL	50 mL	271464	02/27/19 09:16	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			271557	02/27/19 16:13	KAK	TAL PIT
Instrument ID: HGY										

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

NAM = Nicole Marfisi

RJR = Ron Rosenbaum

Batch Type: Analysis

KAK = Kayla Kalamasz

MJH = Matthew Hartman

RSK = Robert Kurtz

WTR = Bill Reinheimer

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-6
Date Collected: 02/20/19 09:45
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.092	J	0.20	0.026	mg/L			03/05/19 07:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 17:52	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 17:52	1
Barium	0.052		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:52	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 17:52	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 17:52	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:52	1
Cobalt	0.00011	J	0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 17:52	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 17:52	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 17:52	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 17:52	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 17:52	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 17:52	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:45	1

Client Sample ID: SGWC-7
Date Collected: 02/20/19 11:00
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.20		0.20	0.026	mg/L			03/05/19 08:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 17:56	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 17:56	1
Barium	0.28		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:56	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 17:56	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 17:56	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:56	1
Cobalt	0.0057		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 17:56	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 17:56	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 17:56	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 17:56	1
Molybdenum	0.0013	J	0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 17:56	1
Lithium	0.0060		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 17:56	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-8

Lab Sample ID: 180-86954-3

Date Collected: 02/20/19 12:08

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.32		0.20	0.026	mg/L			03/05/19 08:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 17:59	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 17:59	1
Barium	0.20		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:59	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 17:59	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 17:59	1
Chromium	0.0021	J	0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:59	1
Cobalt	0.00014	J	0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 17:59	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 17:59	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 17:59	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 17:59	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 17:59	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 17:59	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:49	1

Client Sample ID: SGWC-9

Lab Sample ID: 180-86954-4

Date Collected: 02/20/19 09:13

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.074	J	0.20	0.026	mg/L			03/05/19 13:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:02	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:02	1
Barium	0.077		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:02	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:02	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:02	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:02	1
Cobalt	0.010		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:02	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:02	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:02	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:02	1
Molybdenum	0.00075	J	0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:02	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:02	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:50	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-10

Lab Sample ID: 180-86954-5

Date Collected: 02/20/19 15:25

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 10:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:06	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:06	1
Barium	0.036		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:06	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:06	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:06	1
Chromium	<0.00015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:06	1
Cobalt	0.034		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:06	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:06	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:06	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:06	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:06	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:55	1

Client Sample ID: SGWC-11

Lab Sample ID: 180-86954-6

Date Collected: 02/20/19 11:09

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 10:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:09	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:09	1
Barium	0.044		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:09	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:09	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:09	1
Chromium	<0.00015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:09	1
Cobalt	0.024		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:09	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:09	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:09	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:09	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:09	1
Lithium	0.0031	J	0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:09	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:56	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.052	J	0.20	0.026	mg/L			03/05/19 11:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:12	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:12	1
Barium	0.054		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:12	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:12	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:12	1
Chromium	<0.00015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:12	1
Cobalt	0.0032		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:12	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:12	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:12	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:12	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:57	1

Client Sample ID: SGWC-13

Lab Sample ID: 180-86954-8

Date Collected: 02/20/19 10:05

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 11:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:16	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:16	1
Barium	0.041		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:16	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:16	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:16	1
Chromium	<0.00015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:16	1
Cobalt	0.0040		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:16	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:16	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:16	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:58	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-14

Lab Sample ID: 180-86954-9

Date Collected: 02/20/19 09:25

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 12:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:19	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:19	1
Barium	0.053		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:19	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:19	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:19	1
Chromium	0.0016	J	0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:19	1
Cobalt	0.011		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:19	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:19	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:19	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:19	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:59	1

Client Sample ID: FB-2

Lab Sample ID: 180-86954-10

Date Collected: 02/20/19 13:25

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 09:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:29	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:29	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:29	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:29	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:29	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:29	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:29	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:29	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:29	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:29	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:29	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:29	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:00	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: EB-2

Lab Sample ID: 180-86954-11

Date Collected: 02/20/19 12:00

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 06:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:32	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:32	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:32	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:32	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:32	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:32	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:32	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:32	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:32	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:32	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:32	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:32	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:01	1

Client Sample ID: DUP-2

Lab Sample ID: 180-86954-12

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.14	J	0.20	0.026	mg/L			03/05/19 12:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:36	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:36	1
Barium	0.21		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:36	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:36	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:36	1
Chromium	0.0022	J	0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:36	1
Cobalt	0.00014	J	0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:36	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:36	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:36	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:02	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-15

Lab Sample ID: 180-86954-13

Date Collected: 02/20/19 11:36

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.33		0.20	0.026	mg/L			03/05/19 13:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:39	1
Arsenic	0.00075	J	0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:39	1
Barium	0.036		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:39	1
Beryllium	0.00042	J	0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:39	1
Cadmium	0.00033	J	0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:39	1
Chromium	0.038		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:39	1
Cobalt	0.26		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:39	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:39	1
Selenium	0.0034		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:39	1
Thallium	0.000098	J	0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:39	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:39	1
Lithium	0.0038	J	0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:39	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:03	1

Client Sample ID: SGWC-16

Lab Sample ID: 180-86954-14

Date Collected: 02/20/19 13:07

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 13:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:42	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:42	1
Barium	0.027		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:42	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:42	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:42	1
Chromium	0.013		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:42	1
Cobalt	0.0038		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:42	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:42	1
Selenium	0.0012	J	0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:42	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:42	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:42	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:42	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:04	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-17

Lab Sample ID: 180-86954-15

Date Collected: 02/20/19 13:15

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.034	J	0.20	0.026	mg/L			03/05/19 13:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:46	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:46	1
Barium	0.023		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:46	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:46	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:46	1
Chromium	0.0061		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:46	1
Cobalt	0.00035	J	0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:46	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:46	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:46	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:46	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:46	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:46	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:09	1

Client Sample ID: SGWC-18

Lab Sample ID: 180-86954-16

Date Collected: 02/20/19 14:16

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 07:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:49	1
Arsenic	0.0030		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:49	1
Barium	0.034		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:49	1
Beryllium	0.00033	J	0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:49	1
Cadmium	0.00023	J	0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:49	1
Chromium	0.011		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:49	1
Cobalt	0.19		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:49	1
Selenium	0.027		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:49	1
Thallium	0.00021	J	0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:49	1
Lithium	0.0054		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:49	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00026		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:10	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-19

Lab Sample ID: 180-86954-17

Date Collected: 02/20/19 15:56

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/04/19 18:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:52	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:52	1
Barium	0.036		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:52	1
Beryllium	0.00016	J	0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:52	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:52	1
Chromium	0.017		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:52	1
Cobalt	0.00012	J	0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:52	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:52	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:52	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:52	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:52	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:52	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:11	1

Client Sample ID: SGWC-20

Lab Sample ID: 180-86954-18

Date Collected: 02/20/19 14:25

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.20		0.20	0.026	mg/L			03/04/19 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 18:56	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 18:56	1
Barium	0.030		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:56	1
Beryllium	0.00077	J	0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 18:56	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 18:56	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 18:56	1
Cobalt	0.18		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 18:56	1
Lead	0.00027	J	0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 18:56	1
Selenium	0.0011	J	0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 18:56	1
Thallium	0.00018	J	0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 18:56	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 18:56	1
Lithium	0.0048	J	0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 18:56	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:12	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.051	J	0.20	0.026	mg/L			03/04/19 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 19:15	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 19:15	1
Barium	0.10		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 19:15	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 19:15	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 19:15	1
Chromium	0.0015	J	0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 19:15	1
Cobalt	0.00011	J	0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 19:15	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 19:15	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 19:15	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 19:15	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 19:15	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 19:15	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:13	1

Client Sample ID: FB-3

Lab Sample ID: 180-86954-20

Date Collected: 02/20/19 16:30

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/04/19 16:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 19:19	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 19:19	1
Barium	0.0051		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 19:19	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 19:19	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 19:19	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 19:19	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 19:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 19:19	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 19:19	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 19:19	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 19:19	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 19:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 18:14	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Client Sample ID: EB-3

Lab Sample ID: 180-86954-21

Date Collected: 02/20/19 16:15

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/04/19 16:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:17	03/01/19 13:57	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:17	03/01/19 13:57	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:17	03/01/19 13:57	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:17	03/01/19 13:57	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:17	03/01/19 13:57	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:17	03/01/19 13:57	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:17	03/01/19 13:57	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:17	03/01/19 13:57	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/26/19 12:17	03/01/19 13:57	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:17	03/01/19 13:57	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:17	03/01/19 13:57	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:17	03/01/19 13:57	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:16	02/27/19 16:12	1

Client Sample ID: DUP-3

Lab Sample ID: 180-86954-22

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.031	J	0.20	0.026	mg/L			03/04/19 19:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:17	03/01/19 14:00	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:17	03/01/19 14:00	1
Barium	0.032		0.0025	0.0015	mg/L		02/26/19 12:17	03/01/19 14:00	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:17	03/01/19 14:00	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:17	03/01/19 14:00	1
Chromium	0.015		0.0025	0.0015	mg/L		02/26/19 12:17	03/01/19 14:00	1
Cobalt	0.00010	J	0.0025	0.000075	mg/L		02/26/19 12:17	03/01/19 14:00	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:17	03/01/19 14:00	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/26/19 12:17	03/01/19 14:00	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:17	03/01/19 14:00	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:17	03/01/19 14:00	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:17	03/01/19 14:00	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:16	02/27/19 16:13	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

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

Lab Sample ID: MB 180-271818/46
Matrix: Water
Analysis Batch: 271818

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/04/19 16:07	1

Lab Sample ID: LCS 180-271818/45
Matrix: Water
Analysis Batch: 271818

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.2		mg/L		101	90 - 110
Fluoride	1.25	1.24		mg/L		99	90 - 110
Sulfate	25.0	24.6		mg/L		99	90 - 110

Lab Sample ID: 180-86954-19 MS
Matrix: Water
Analysis Batch: 271818

Client Sample ID: SGWC-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.0		25.0	33.2		mg/L		97	80 - 120
Fluoride	0.051	J	1.25	1.34		mg/L		103	80 - 120
Sulfate	86		25.0	108		mg/L		88	80 - 120

Lab Sample ID: 180-86954-19 MSD
Matrix: Water
Analysis Batch: 271818

Client Sample ID: SGWC-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.0		25.0	33.4		mg/L		98	80 - 120	1	20
Fluoride	0.051	J	1.25	1.32		mg/L		102	80 - 120	1	20
Sulfate	86		25.0	109		mg/L		89	80 - 120	0	20

Lab Sample ID: MB 180-271929/6
Matrix: Water
Analysis Batch: 271929

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.20	0.026	mg/L			03/05/19 06:36	1

Lab Sample ID: LCS 180-271929/5
Matrix: Water
Analysis Batch: 271929

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.5		mg/L		102	90 - 110
Fluoride	1.25	1.26		mg/L		101	90 - 110
Sulfate	25.0	24.9		mg/L		100	90 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-86954-1 MS
Matrix: Water
Analysis Batch: 271929

Client Sample ID: SGWC-6
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Chloride	1.6		25.0	26.8		mg/L		101	80 - 120	
Fluoride	0.092	J	1.25	1.38		mg/L		103	80 - 120	
Sulfate	0.53	J	25.0	25.2		mg/L		99	80 - 120	

Lab Sample ID: 180-86954-1 MSD
Matrix: Water
Analysis Batch: 271929

Client Sample ID: SGWC-6
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Chloride	1.6		25.0	26.4		mg/L		99	80 - 120	1	20	
Fluoride	0.092	J	1.25	1.35		mg/L		101	80 - 120	2	20	
Sulfate	0.53	J	25.0	24.9		mg/L		97	80 - 120	1	20	

Lab Sample ID: 180-86954-8 MS
Matrix: Water
Analysis Batch: 271929

Client Sample ID: SGWC-13
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Chloride	8.1		25.0	34.6		mg/L		106	80 - 120	
Fluoride	<0.026		1.25	1.38		mg/L		110	80 - 120	
Sulfate	87		25.0	114		mg/L		109	80 - 120	

Lab Sample ID: 180-86954-8 MSD
Matrix: Water
Analysis Batch: 271929

Client Sample ID: SGWC-13
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Chloride	8.1		25.0	35.3		mg/L		109	80 - 120	2	20	
Fluoride	<0.026		1.25	1.40		mg/L		112	80 - 120	1	20	
Sulfate	87		25.0	117		mg/L		119	80 - 120	2	20	

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-271353/1-A
Matrix: Water
Analysis Batch: 271799

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 271353

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00038		0.0025	0.00038	mg/L		02/26/19 12:17	03/01/19 12:20	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/26/19 12:17	03/01/19 12:20	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:17	03/01/19 12:20	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/26/19 12:17	03/01/19 12:20	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/26/19 12:17	03/01/19 12:20	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/26/19 12:17	03/01/19 12:20	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/26/19 12:17	03/01/19 12:20	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/26/19 12:17	03/01/19 12:20	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/26/19 12:17	03/01/19 12:20	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/26/19 12:17	03/01/19 12:20	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/26/19 12:17	03/01/19 12:20	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

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

Lab Sample ID: MB 180-271353/1-A
Matrix: Water
Analysis Batch: 271799

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 271353

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0031		0.0050	0.0031	mg/L		02/26/19 12:17	03/01/19 12:20	1

Lab Sample ID: LCS 180-271353/2-A
Matrix: Water
Analysis Batch: 271799

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 271353

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.557		mg/L		111	80 - 120
Arsenic	0.0400	0.0389		mg/L		97	80 - 120
Barium	2.00	2.15		mg/L		108	80 - 120
Beryllium	0.0500	0.0490		mg/L		98	80 - 120
Boron	1.00	0.992		mg/L		99	80 - 120
Cadmium	0.0500	0.0549		mg/L		110	80 - 120
Chromium	0.200	0.217		mg/L		108	80 - 120
Calcium	50.0	53.0		mg/L		106	80 - 120
Cobalt	0.500	0.486		mg/L		97	80 - 120
Lead	0.0200	0.0217		mg/L		108	80 - 120
Selenium	0.0100	0.00934		mg/L		93	80 - 120
Thallium	0.0500	0.0546		mg/L		109	80 - 120
Molybdenum	1.00	1.07		mg/L		107	80 - 120
Lithium	0.0500	0.0521		mg/L		104	80 - 120

Lab Sample ID: MB 180-271510/1-A
Matrix: Water
Analysis Batch: 271815

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 271510

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0025	0.00038	mg/L		02/27/19 12:08	03/02/19 17:36	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/27/19 12:08	03/02/19 17:36	1
Barium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:36	1
Beryllium	<0.00016		0.0025	0.00016	mg/L		02/27/19 12:08	03/02/19 17:36	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/27/19 12:08	03/02/19 17:36	1
Chromium	<0.0015		0.0025	0.0015	mg/L		02/27/19 12:08	03/02/19 17:36	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/27/19 12:08	03/02/19 17:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/27/19 12:08	03/02/19 17:36	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/27/19 12:08	03/02/19 17:36	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/27/19 12:08	03/02/19 17:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/27/19 12:08	03/02/19 17:36	1
Lithium	<0.0031		0.0050	0.0031	mg/L		02/27/19 12:08	03/02/19 17:36	1

Lab Sample ID: LCS 180-271510/2-A
Matrix: Water
Analysis Batch: 271815

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 271510

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.453		mg/L		91	80 - 120
Arsenic	0.0400	0.0361		mg/L		90	80 - 120
Barium	2.00	2.11		mg/L		105	80 - 120
Beryllium	0.0500	0.0520		mg/L		104	80 - 120

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

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

Lab Sample ID: LCS 180-271510/2-A
Matrix: Water
Analysis Batch: 271815

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 271510

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.975		mg/L		97	80 - 120
Cadmium	0.0500	0.0538		mg/L		108	80 - 120
Chromium	0.200	0.213		mg/L		106	80 - 120
Calcium	50.0	51.0		mg/L		102	80 - 120
Cobalt	0.500	0.467		mg/L		93	80 - 120
Lead	0.0200	0.0201		mg/L		100	80 - 120
Selenium	0.0100	0.0101		mg/L		101	80 - 120
Thallium	0.0500	0.0482		mg/L		96	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Lithium	0.0500	0.0501		mg/L		100	80 - 120

Lab Sample ID: 180-86954-18 MS
Matrix: Water
Analysis Batch: 271815

Client Sample ID: SGWC-20
Prep Type: Total Recoverable
Prep Batch: 271510

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.500	0.474		mg/L		95	75 - 125
Arsenic	<0.00032		0.0400	0.0385		mg/L		96	75 - 125
Barium	0.030		2.00	2.29		mg/L		113	75 - 125
Beryllium	0.00077	J	0.0500	0.0543		mg/L		107	75 - 125
Boron	2.0	B	1.00	3.00		mg/L		105	75 - 125
Cadmium	<0.00013		0.0500	0.0565		mg/L		113	75 - 125
Chromium	<0.0015		0.200	0.222		mg/L		111	75 - 125
Calcium	14		50.0	66.9		mg/L		107	75 - 125
Cobalt	0.18		0.500	0.668		mg/L		97	75 - 125
Lead	0.00027	J	0.0200	0.0210		mg/L		103	75 - 125
Selenium	0.0011	J	0.0100	0.0113		mg/L		102	75 - 125
Thallium	0.00018	J	0.0500	0.0493		mg/L		98	75 - 125
Molybdenum	<0.00061		1.00	1.08		mg/L		108	75 - 125
Lithium	0.0048	J	0.0500	0.0566		mg/L		104	75 - 125

Lab Sample ID: 180-86954-18 MSD
Matrix: Water
Analysis Batch: 271815

Client Sample ID: SGWC-20
Prep Type: Total Recoverable
Prep Batch: 271510

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.00038		0.500	0.474		mg/L		95	75 - 125	0	20
Arsenic	<0.00032		0.0400	0.0390		mg/L		97	75 - 125	1	20
Barium	0.030		2.00	2.26		mg/L		112	75 - 125	1	20
Beryllium	0.00077	J	0.0500	0.0536		mg/L		106	75 - 125	1	20
Boron	2.0	B	1.00	2.96		mg/L		101	75 - 125	1	20
Cadmium	<0.00013		0.0500	0.0562		mg/L		112	75 - 125	1	20
Chromium	<0.0015		0.200	0.223		mg/L		111	75 - 125	0	20
Calcium	14		50.0	66.9		mg/L		107	75 - 125	0	20
Cobalt	0.18		0.500	0.665		mg/L		97	75 - 125	0	20
Lead	0.00027	J	0.0200	0.0214		mg/L		105	75 - 125	2	20
Selenium	0.0011	J	0.0100	0.0118		mg/L		106	75 - 125	4	20
Thallium	0.00018	J	0.0500	0.0498		mg/L		99	75 - 125	1	20
Molybdenum	<0.00061		1.00	1.07		mg/L		107	75 - 125	1	20

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

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

Lab Sample ID: 180-86954-18 MSD
Matrix: Water
Analysis Batch: 271815

Client Sample ID: SGWC-20
Prep Type: Total Recoverable
Prep Batch: 271510

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.0048	J	0.0500	0.0566		mg/L		104	75 - 125	0	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-271461/1-A
Matrix: Water
Analysis Batch: 271557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:04	02/27/19 17:43	1

Lab Sample ID: LCS 180-271461/2-A
Matrix: Water
Analysis Batch: 271557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00255		mg/L		102	80 - 120

Lab Sample ID: 180-86954-1 MS
Matrix: Water
Analysis Batch: 271557

Client Sample ID: SGWC-6
Prep Type: Total/NA
Prep Batch: 271461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00010		0.00100	0.000999		mg/L		100	75 - 125

Lab Sample ID: 180-86954-1 MSD
Matrix: Water
Analysis Batch: 271557

Client Sample ID: SGWC-6
Prep Type: Total/NA
Prep Batch: 271461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00010		0.00100	0.000990		mg/L		99	75 - 125	1	20

Lab Sample ID: MB 180-271464/1-A
Matrix: Water
Analysis Batch: 271557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00010		0.00020	0.00010	mg/L		02/27/19 09:16	02/27/19 16:04	1

Lab Sample ID: LCS 180-271464/2-A
Matrix: Water
Analysis Batch: 271557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00256		mg/L		102	80 - 120

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

HPLC/IC

Analysis Batch: 271818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-17	SGWC-19	Total/NA	Water	EPA 300.0 R2.1	
180-86954-18	SGWC-20	Total/NA	Water	EPA 300.0 R2.1	
180-86954-19	SGWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-86954-20	FB-3	Total/NA	Water	EPA 300.0 R2.1	
180-86954-21	EB-3	Total/NA	Water	EPA 300.0 R2.1	
180-86954-22	DUP-3	Total/NA	Water	EPA 300.0 R2.1	
MB 180-271818/46	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-271818/45	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-86954-19 MS	SGWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-86954-19 MSD	SGWC-21	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 271929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-86954-2	SGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-86954-3	SGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-86954-4	SGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-86954-5	SGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-86954-6	SGWC-11	Total/NA	Water	EPA 300.0 R2.1	
180-86954-7	SGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-86954-8	SGWC-13	Total/NA	Water	EPA 300.0 R2.1	
180-86954-9	SGWC-14	Total/NA	Water	EPA 300.0 R2.1	
180-86954-10	FB-2	Total/NA	Water	EPA 300.0 R2.1	
180-86954-11	EB-2	Total/NA	Water	EPA 300.0 R2.1	
180-86954-12	DUP-2	Total/NA	Water	EPA 300.0 R2.1	
180-86954-13	SGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-86954-14	SGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-86954-15	SGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-86954-16	SGWC-18	Total/NA	Water	EPA 300.0 R2.1	
MB 180-271929/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-271929/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-86954-1 MS	SGWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-86954-1 MSD	SGWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-86954-8 MS	SGWC-13	Total/NA	Water	EPA 300.0 R2.1	
180-86954-8 MSD	SGWC-13	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 271353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-21	EB-3	Total Recoverable	Water	3005A	
180-86954-22	DUP-3	Total Recoverable	Water	3005A	
MB 180-271353/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-271353/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 271461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total/NA	Water	7470A	
180-86954-2	SGWC-7	Total/NA	Water	7470A	
180-86954-3	SGWC-8	Total/NA	Water	7470A	

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Metals (Continued)

Prep Batch: 271461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-4	SGWC-9	Total/NA	Water	7470A	
180-86954-5	SGWC-10	Total/NA	Water	7470A	
180-86954-6	SGWC-11	Total/NA	Water	7470A	
180-86954-7	SGWC-12	Total/NA	Water	7470A	
180-86954-8	SGWC-13	Total/NA	Water	7470A	
180-86954-9	SGWC-14	Total/NA	Water	7470A	
180-86954-10	FB-2	Total/NA	Water	7470A	
180-86954-11	EB-2	Total/NA	Water	7470A	
180-86954-12	DUP-2	Total/NA	Water	7470A	
180-86954-13	SGWC-15	Total/NA	Water	7470A	
180-86954-14	SGWC-16	Total/NA	Water	7470A	
180-86954-15	SGWC-17	Total/NA	Water	7470A	
180-86954-16	SGWC-18	Total/NA	Water	7470A	
180-86954-17	SGWC-19	Total/NA	Water	7470A	
180-86954-18	SGWC-20	Total/NA	Water	7470A	
180-86954-19	SGWC-21	Total/NA	Water	7470A	
180-86954-20	FB-3	Total/NA	Water	7470A	
MB 180-271461/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-271461/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-86954-1 MS	SGWC-6	Total/NA	Water	7470A	
180-86954-1 MSD	SGWC-6	Total/NA	Water	7470A	

Prep Batch: 271464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-21	EB-3	Total/NA	Water	7470A	
180-86954-22	DUP-3	Total/NA	Water	7470A	
MB 180-271464/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-271464/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 271510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total Recoverable	Water	3005A	
180-86954-2	SGWC-7	Total Recoverable	Water	3005A	
180-86954-3	SGWC-8	Total Recoverable	Water	3005A	
180-86954-4	SGWC-9	Total Recoverable	Water	3005A	
180-86954-5	SGWC-10	Total Recoverable	Water	3005A	
180-86954-6	SGWC-11	Total Recoverable	Water	3005A	
180-86954-7	SGWC-12	Total Recoverable	Water	3005A	
180-86954-8	SGWC-13	Total Recoverable	Water	3005A	
180-86954-9	SGWC-14	Total Recoverable	Water	3005A	
180-86954-10	FB-2	Total Recoverable	Water	3005A	
180-86954-11	EB-2	Total Recoverable	Water	3005A	
180-86954-12	DUP-2	Total Recoverable	Water	3005A	
180-86954-13	SGWC-15	Total Recoverable	Water	3005A	
180-86954-14	SGWC-16	Total Recoverable	Water	3005A	
180-86954-15	SGWC-17	Total Recoverable	Water	3005A	
180-86954-16	SGWC-18	Total Recoverable	Water	3005A	
180-86954-17	SGWC-19	Total Recoverable	Water	3005A	
180-86954-18	SGWC-20	Total Recoverable	Water	3005A	
180-86954-19	SGWC-21	Total Recoverable	Water	3005A	
180-86954-20	FB-3	Total Recoverable	Water	3005A	

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
SDG: Ash

Metals (Continued)

Prep Batch: 271510 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-271510/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-271510/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-86954-18 MS	SGWC-20	Total Recoverable	Water	3005A	
180-86954-18 MSD	SGWC-20	Total Recoverable	Water	3005A	

Analysis Batch: 271557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total/NA	Water	EPA 7470A	271461
180-86954-2	SGWC-7	Total/NA	Water	EPA 7470A	271461
180-86954-3	SGWC-8	Total/NA	Water	EPA 7470A	271461
180-86954-4	SGWC-9	Total/NA	Water	EPA 7470A	271461
180-86954-5	SGWC-10	Total/NA	Water	EPA 7470A	271461
180-86954-6	SGWC-11	Total/NA	Water	EPA 7470A	271461
180-86954-7	SGWC-12	Total/NA	Water	EPA 7470A	271461
180-86954-8	SGWC-13	Total/NA	Water	EPA 7470A	271461
180-86954-9	SGWC-14	Total/NA	Water	EPA 7470A	271461
180-86954-10	FB-2	Total/NA	Water	EPA 7470A	271461
180-86954-11	EB-2	Total/NA	Water	EPA 7470A	271461
180-86954-12	DUP-2	Total/NA	Water	EPA 7470A	271461
180-86954-13	SGWC-15	Total/NA	Water	EPA 7470A	271461
180-86954-14	SGWC-16	Total/NA	Water	EPA 7470A	271461
180-86954-15	SGWC-17	Total/NA	Water	EPA 7470A	271461
180-86954-16	SGWC-18	Total/NA	Water	EPA 7470A	271461
180-86954-17	SGWC-19	Total/NA	Water	EPA 7470A	271461
180-86954-18	SGWC-20	Total/NA	Water	EPA 7470A	271461
180-86954-19	SGWC-21	Total/NA	Water	EPA 7470A	271461
180-86954-20	FB-3	Total/NA	Water	EPA 7470A	271461
180-86954-21	EB-3	Total/NA	Water	EPA 7470A	271464
180-86954-22	DUP-3	Total/NA	Water	EPA 7470A	271464
MB 180-271461/1-A	Method Blank	Total/NA	Water	EPA 7470A	271461
MB 180-271464/1-A	Method Blank	Total/NA	Water	EPA 7470A	271464
LCS 180-271461/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	271461
LCS 180-271464/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	271464
180-86954-1 MS	SGWC-6	Total/NA	Water	EPA 7470A	271461
180-86954-1 MSD	SGWC-6	Total/NA	Water	EPA 7470A	271461

Analysis Batch: 271799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-21	EB-3	Total Recoverable	Water	EPA 6020	271353
180-86954-22	DUP-3	Total Recoverable	Water	EPA 6020	271353
MB 180-271353/1-A	Method Blank	Total Recoverable	Water	EPA 6020	271353
LCS 180-271353/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	271353

Analysis Batch: 271815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total Recoverable	Water	EPA 6020	271510
180-86954-2	SGWC-7	Total Recoverable	Water	EPA 6020	271510
180-86954-3	SGWC-8	Total Recoverable	Water	EPA 6020	271510
180-86954-4	SGWC-9	Total Recoverable	Water	EPA 6020	271510
180-86954-5	SGWC-10	Total Recoverable	Water	EPA 6020	271510
180-86954-6	SGWC-11	Total Recoverable	Water	EPA 6020	271510

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-1
 SDG: Ash

Metals (Continued)

Analysis Batch: 271815 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-7	SGWC-12	Total Recoverable	Water	EPA 6020	271510
180-86954-8	SGWC-13	Total Recoverable	Water	EPA 6020	271510
180-86954-9	SGWC-14	Total Recoverable	Water	EPA 6020	271510
180-86954-10	FB-2	Total Recoverable	Water	EPA 6020	271510
180-86954-11	EB-2	Total Recoverable	Water	EPA 6020	271510
180-86954-12	DUP-2	Total Recoverable	Water	EPA 6020	271510
180-86954-13	SGWC-15	Total Recoverable	Water	EPA 6020	271510
180-86954-14	SGWC-16	Total Recoverable	Water	EPA 6020	271510
180-86954-15	SGWC-17	Total Recoverable	Water	EPA 6020	271510
180-86954-16	SGWC-18	Total Recoverable	Water	EPA 6020	271510
180-86954-17	SGWC-19	Total Recoverable	Water	EPA 6020	271510
180-86954-18	SGWC-20	Total Recoverable	Water	EPA 6020	271510
180-86954-19	SGWC-21	Total Recoverable	Water	EPA 6020	271510
180-86954-20	FB-3	Total Recoverable	Water	EPA 6020	271510
MB 180-271510/1-A	Method Blank	Total Recoverable	Water	EPA 6020	271510
LCS 180-271510/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	271510
180-86954-18 MS	SGWC-20	Total Recoverable	Water	EPA 6020	271510
180-86954-18 MSD	SGWC-20	Total Recoverable	Water	EPA 6020	271510

TestAmerica Pittsburgh

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Chain of Custody Record



180-86954 Chain of Custody



Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Dawn Prell		Site Contact: Travis Martinez		Date:		COC No:			
Southern Company		Tel/Fax: 248-538-5445		Lab Contact: Veronica Bortot		Carrier:		1 of 2 COCs			
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) 6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se, I,7470A - Hg 300_ORGFM_28D-Fluoride 9315_Ra226,9320_Ra228, Ra228Ra228_GFPC		TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sampler: For Lab Use Only: Walk-in Client: Lab Sampling:			
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						Job / SDG No.:			
(404) 506-7239 Phone											
FAX											
Project Name: GPC Plant Scherer											
Site: Ash Pond											
P O # 186235018											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se, I,7470A - Hg	300_ORGFM_28D-Fluoride	9315_Ra226,9320_Ra228, Ra228Ra228_GFPC	Sample Specific Notes:
SGWC-6	02/20/19	9:45	G	GW	4	N		1	1	2	
SGWC-7	02/20/19	11:00	G	GW	4	N		1	1	2	
SGWC-8	02/20/19	12:08	G	GW	4	N		1	1	2	
SGWC-9	02/21/19	09:13	G	GW	4	N		1	1	2	Extra Radium - (2 x 1/2 Gal)
SGWC-10	02/20/19	15:25	G	GW	4	N		1	1	2	
SGWC-11	02/20/19	11:09	G	GW	4	N		1	1	2	
SGWC-12	02/20/19	09:36	G	GW	4	N		1	1	2	
SGWC-13	02/20/19	10:05	G	GW	4	N		1	1	2	
SGWC-14	02/21/19	09:25	G	GW	4	N		1	1	2	Extra Radium - (2 x 1/2 Gal)
FB-2	02/20/19	13:25	G	W	4	N		1	1	2	
EB-2	02/20/19	12:00	G	W	4	N		1	1	2	
DUP-2	02/20/19	-	G	GW	4	N		1	1	2	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								4	1	4	
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments: Attorney Client Privileged. Report J-Flags.											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:			
Relinquished by: <i>Jean Zelle</i>		Company: <i>TRC</i>		Date/Time: <i>2/11/19 12:55</i>		Received by: <i>[Signature]</i>		Company: <i>TRC</i>		Date/Time: <i>2/21/19 12:55</i>	
Relinquished by: <i>[Signature]</i>		Company: <i>TRC</i>		Date/Time: <i>2/21/19</i>		Received by: <i>[Signature]</i>		Company: <i>TRC</i>		Date/Time: _____	
Relinquished by: <i>[Signature]</i>		Company: _____		Date/Time: _____		Received in Laboratory by: _____		Company: _____		Date/Time: _____	

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018



TestAmerica Pittsburgh

301 Alpha Drive
 RIDC Park
 Pittsburgh, PA 15238-2907
 phone 412.963.7058 fax 412.963.2468

Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: Dawn Prell		Site Contact: Travis Martinez		Date:		COC No:										
Southern Company		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		2 of 2 COCs										
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time																
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day																
(404) 506-7239 Phone		Perform MS/MSD (Y/N) 6020 - Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se, TI, 7470A - Hg 300_ORGFM_28D-Fluoride 9315_Ra226, 9320_Ra228, Ra226Ra228_GFFC																
FAX																		
Project Name: GPC Plant Scherer																		
Site: Ash Pond		Sampler: For Lab Use Only: Walk-in Client: Lab Sampling:																
P O # 166235018																		
Job / SDG No.:		Sample Specific Notes:																
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered	Perform MS/MSD (Y/N)	6020 - Sb,As,Ba,Bi,Cd,Cr,Cu,Pb,LI,Mo,Se, TI, 7470A - Hg	300_ORGFM_28D-Fluoride	9315_Ra226, 9320_Ra228, Ra226Ra228_GFFC	Sample Specific Notes:							
SGWC-15	02/20/19	11:36	G	GW	4	N		1	1	2								
SGWC-16	02/20/19	13:07	G	GW	4	N		1	1	2								
SGWC-17	02/20/19	13:15	G	GW	4	N		1	1	2								
SGWC-18	02/20/19	14:16	G	GW	4	N		1	1	2								
SGWC-19	02/20/19	15:56	G	GW	4	N		1	1	2								
SGWC-20	02/20/19	14:25	G	GW	4	N		1	1	2								
SGWC-21	02/21/19	09:54	G	GW	6	N		1	1	4	Extra Radium							
FB-3	02/20/19	16:30	G	W	4	N		1	1	2								
EB-3	02/20/19	16:15	G	W	4	N		1	1	2								
DUP-3	02/20/19	--	G	GW	4	N		1	1	2								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								4	1	4								
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.								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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months										
Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.																		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:										
Relinquished by: <i>Jan 2/19</i>		Company: Golder Associates		Date/Time: 2-21-19 12:45		Received by: <i>[Signature]</i>		Company: <i>JA</i>		Date/Time: 2/21/19 12:55								
Relinquished by: <i>[Signature]</i>		Company: <i>JA</i>		Date/Time: 16:10		Received by: <i>[Signature]</i>		Company: <i>JA</i>		Date/Time:								
Relinquished by: <i>[Signature]</i>		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:								

Page 37 of 46

3/18/2019



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Part # 159469-434 RITZ EXP 10/19

RITZ EXP 10/19

ORIGIN ID:MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 21 FEB 2019
ACTWGT: 56.90 LBS
CAD: 859116/CAFE3211

BILL RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7868
REF: SOUTHERN CO.

(US)



ICC THE COMPLIANCE CENTER INC.

transport only: ... HIGHWAY OR RAIL

Printed in C

4 of 6

MPS# 4651 0080 6549
0263

Mstr# 4651 0080 6516

0201

FRI - 22 FEB 3:00P
STANDARD OVERNIGHT

NA AGCA

15238

PA-US PIT 994

31046



Uncorrected temp 21 °C
Thermometer ID 10

CF 0 Initials JS

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

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Part # 159469-434 RITZ EXP 10/19

722359

Test America

ORIGIN ID:MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCCONOUGH DRIVE

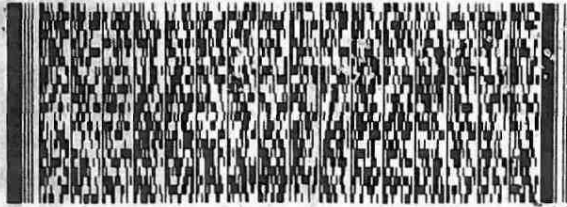
SHIP DATE: 21FEB19
ACTWGT: 56.80 LB
CAD: 859116/CAFE3211

NORCROSS, GA 30093
UNITED STATES US

BILL RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 863-7068
REF: SOUTHERN CO.



FedEx
Express



6 of 6

FRI - 22 FEB 3:00P
STANDARD OVERNIGHT

MPS# 0263 4651 0080 6560

Mstr# 4651 0080 6516

0201

NA AGCA

15238
PA-U.S PIT

Uncorrected temp
Thermometer ID

CF 0 Initials TS

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

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ADFR IN ENVIRONMENTAL TESTING

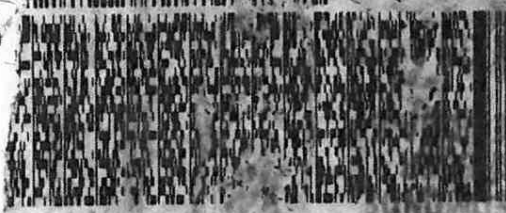
Part # 159469-434 (1) 12 EXP 10/19

MULA (678) 966-9991
LOR
CA ATLANTA
OUGH DRIVE
GA 30093
TATES US

SHIP DATE: 21 FEB 19
ACTWGT: 58.90 LB
CAD: 859176/CAFE32L1

BILL RECIPIENT

PLE RECEIVING
PITTSBURGH
ALPHA DRIVE
PARK
PITTSBURGH PA 15238
7058
SOUTHERN CO



FedEx
Express



1 of 6
4651 0060 6516
ASTER #

Feb - 22 FEB 3:00P
STANDARD OVERNIGHT

A AGCA
Uncorrected Temp
Thermometer ID

15238
PA-US PIT

CF 0 Initials 19 10 °C
PT-VLSR-COT



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THE LEADER IN ENVIRONMENTAL TESTING

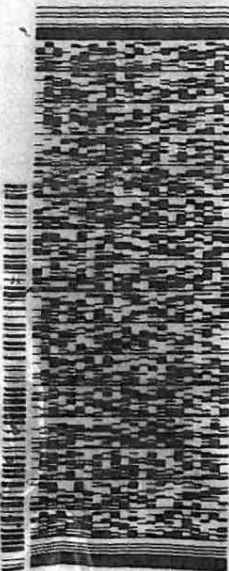
ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 HCDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 21FEB19
ACTWT: 56.80 LB
CAD: 859116/CAFE3211

10 **SAMPLE RECEIVING**

TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: SOUTHERN CO.



2 of 6
MPS# 4651 0080 6527
Mstr# 4651 0080 6516

NA AGCA

15238
PA-US
PIT

Uncorrected temp _____ °C
Thermometer ID _____

CF 0 Initials TD

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



Part # 159469-434 RIT2 EXP 10/19

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 HCDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 21FEB19
ACTWT: 56.80 LB
CAD: 859116/CAFE3211

10 **SAMPLE RECEIVING**

TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: SOUTHERN CO.



5 of 6
MPS# 4651 0080 6550
Mstr# 4651 0080 6516

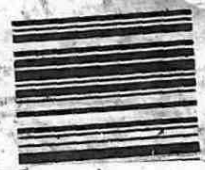
NA AGCA

15238
PA-US
PIT

Uncorrected temp _____ °C
Thermometer ID _____

CF 0 Initials TD

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



This package conforms to
49 CFR 173.4
for domestic highway or
transport only.

IC: THE COMPLIANCE CENTER INC.

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TestAmerica Pittsburgh

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

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Bortot, Veronica		Carrier Tracking No(s):		COC No: 180-355699.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: veronica.bortot@testamericainc.com		State of Origin: Florida		Page: Page 1 of 3	
Company: TestAmerica Laboratories, Inc.		Address: 13715 Rider Trail North, Earth City MO, 63045		Due Date Requested: 3/6/2019		TAT Requested (days):		Job #: 180-86954-1	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Email:		Project Name: CCR - Plant Scherer		Project #: 18019884		Preservation Codes:	
Site: CCR Plant Scherer		SSOW#:		Analysis Requested		Field Filtered Sample (Yes or No)		Other:	
						Perform MS/MSD (Yes or No)		Total Number of containers	
						9315_Ra226/PrecSep_21 Standard Target List			
						9320_Ra228/PrecSep_0 Standard Target List			
						Ra226Ra228_GFPC			
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
						Preservation Code:		Special Instructions/Note:	
SGWC-6 (180-86954-1)		2/20/19		09:45 Eastern		Water		2	
SGWC-7 (180-86954-2)		2/20/19		11:00 Eastern		Water		2	
SGWC-8 (180-86954-3)		2/20/19		12:08 Eastern		Water		2	
SGWC-9 (180-86954-4)		2/20/19		09:13 Eastern		Water		2	
SGWC-10 (180-86954-5)		2/20/19		15:25 Eastern		Water		2	
SGWC-11 (180-86954-6)		2/20/19		11:09 Eastern		Water		2	
SGWC-12 (180-86954-7)		2/20/19		09:36 Eastern		Water		2	
SGWC-13 (180-86954-8)		2/20/19		10:05 Eastern		Water		2	
SGWC-14 (180-86954-9)		2/20/19		09:25 Eastern		Water		2	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					<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)			Primary Deliverable Rank: 2		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 2/25/19 1200		Company: <i>[Signature]</i>		Received by: Michael Heum		Date/Time: 2-26-19 09:00	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:				

Page 43 of 46

3/18/2019



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:		Bortot, Veronica		180-355699.2		Page:	
Shipping/Receiving				E-Mail:		veronica.bortot@testamericainc.com		State of Origin:		Page 2 of 3	
Company:				Accreditations Required (See note):		Job #:		180-86954-1		Preservation Codes:	
TestAmerica Laboratories, Inc.				Due Date Requested:		3/6/2019		Analysis Requested		A - HCL M - Hexane	
Address:				TAT Requested (days):						B - NaOH N - None	
13715 Rider Trail North,										C - Zn Acetate O - AsNaO2	
City:										D - Nitric Acid P - Na2O4S	
Earth City										E - NaHSO4 Q - Na2SO3	
State, Zip:										F - MeOH R - Na2S2O3	
MO, 63045										G - Amchlor S - H2SO4	
Phone:				PO #:						H - Ascorbic Acid T - TSP Dodecahydrate	
314-298-8566(Tel) 314-298-8757(Fax)				WO #:						I - Ice U - Acetone	
Email:										J - DI Water V - MCAA	
Project Name:				Project #:		18019884				K - EDTA W - pH 4-5	
CCR - Plant Scherer				SSOW#:						L - EDA Z - other (specify)	
Site:				CCR Plant Scherer						Other:	
										Special Instructions/Note:	
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
										Preservation Code:	
FB-2 (180-86954-10)				2/20/19		13:25 Eastern		Water		X X X	
EB-2 (180-86954-11)				2/20/19		12:00 Eastern		Water		X X X	
DUP-2 (180-86954-12)				2/20/19		Eastern		Water		X X X	
SGWC-15 (180-86954-13)				2/20/19		11:36 Eastern		Water		X X X	
SGWC-16 (180-86954-14)				2/20/19		13:07 Eastern		Water		X X X	
SGWC-17 (180-86954-15)				2/20/19		13:15 Eastern		Water		X X X	
SGWC-18 (180-86954-16)				2/20/19		14:16 Eastern		Water		X X X	
SGWC-19 (180-86954-17)				2/20/19		15:56 Eastern		Water		X X X	
SGWC-20 (180-86954-18)				2/20/19		14:25 Eastern		Water		X X X	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.</p>											
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed						<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)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>				Date/Time: 2/25/19 1700		Company: <i>[Signature]</i>		Received by: Michael Flum		Date/Time: 2-26-19 0900	
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:							
Δ Yes Δ No											




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: Bortot, Veronica	Carrier Tracking No(s):	COC No: 180-355699.3										
Client Contact: Shipping/Receiving		Phone:	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Florida	Page: Page 3 of 3										
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):			Job #: 180-86954-1										
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Due Date Requested: 3/6/2019	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 - 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:									
Project Name: CCR - Plant Scherer		TAT Requested (days):													
Site: CCR Plant Scherer		Project #: 18019884	 180-86954-02 Chain of Custody												
SSOW#:		Field Filtered Sample (Yes or No)				Perform MS/MSD (Yes or No)	9315_Ra228/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Ra228Ra228_GFPC	Total Number of containers	Special Instructions/Note:				
Sample Identification - Client ID (Lab ID)		Sample Date				Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:						
SGWC-21 (180-86954-19)		2/20/19				09:54 Eastern		Water		X	X	X		4	
FB-3 (180-86954-20)		2/20/19				16:30 Eastern		Water		X	X	X		2	
EB-3 (180-86954-21)		2/20/19				16:15 Eastern		Water		X	X	X		2	
DUP-3 (180-86954-22)		2/20/19				Eastern		Water		X	X	X		2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. |

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		<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)		Primary Deliverable Rank: 2	
Special Instructions/QC Requirements:			
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date/Time: 2/25/19 1200	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i>
Relinquished by:	Date/Time:	Company:	Received by: <i>[Signature]</i>
Relinquished by:	Date/Time:	Company:	Received by:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	

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3/18/2019



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86954-1

SDG Number: Ash

Login Number: 86954

List Number: 1

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-86954-2

TestAmerica Sample Delivery Group: Ash

Client Project/Site: CCR - Plant Scherer

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/31/2019 3:23:42 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Job ID: 180-86954-2

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative 180-86954-2

Comments

No additional comments.

Receipt

The samples were received on 2/22/2019 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.5° C, 1.9° C, 1.9° C, 2.1° C, 2.3° C and 3.1° C.

RAD

Method(s) 903.0, 9315: Radium-226 Prep Batch 160-417027

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.

SGWC-9 (180-86954-4), SGWC-14 (180-86954-9), SGWC-17 (180-86954-15), SGWC-18 (180-86954-16), SGWC-19 (180-86954-17), SGWC-20 (180-86954-18), SGWC-21 (180-86954-19), FB-3 (180-86954-20), EB-3 (180-86954-21), DUP-3 (180-86954-22), (LCS 160-417027/1-A), (LCSD 160-417027/2-A) and (MB 160-417027/22-A)

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-417390

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.

SGWC-6 (180-86954-1), SGWC-7 (180-86954-2), SGWC-8 (180-86954-3), SGWC-10 (180-86954-5), SGWC-11 (180-86954-6), SGWC-12 (180-86954-7), SGWC-13 (180-86954-8), FB-2 (180-86954-10), EB-2 (180-86954-11), DUP-2 (180-86954-12), SGWC-15 (180-86954-13), SGWC-16 (180-86954-14), (LCS 160-417390/1-A), (MB 160-417390/23-A), (490-169056-D-1-A) and (490-169056-F-1-A DU)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-417057

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.

SGWC-9 (180-86954-4), SGWC-14 (180-86954-9), SGWC-17 (180-86954-15), SGWC-18 (180-86954-16), SGWC-19 (180-86954-17), SGWC-20 (180-86954-18), SGWC-21 (180-86954-19), FB-3 (180-86954-20), EB-3 (180-86954-21), DUP-3 (180-86954-22), (LCS 160-417057/1-A), (LCSD 160-417057/2-A) and (MB 160-417057/22-A)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-417407

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.

SGWC-6 (180-86954-1), SGWC-7 (180-86954-2), SGWC-8 (180-86954-3), SGWC-10 (180-86954-5), SGWC-11 (180-86954-6), SGWC-12 (180-86954-7), SGWC-13 (180-86954-8), FB-2 (180-86954-10), EB-2 (180-86954-11), DUP-2 (180-86954-12), SGWC-15 (180-86954-13), SGWC-16 (180-86954-14), (LCS 160-417407/1-A), (MB 160-417407/23-A), (490-169056-D-1-B) and (490-169056-F-1-B DU)

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Job ID: 180-86954-2 (Continued)

Laboratory: TestAmerica Pittsburgh (Continued)

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

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19 *
Florida	NELAP	4	E87689	06-30-19
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19 *
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-19 *

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

TestAmerica Pittsburgh

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-86954-1	SGWC-6	Water	02/20/19 09:45	02/22/19 08:50
180-86954-2	SGWC-7	Water	02/20/19 11:00	02/22/19 08:50
180-86954-3	SGWC-8	Water	02/20/19 12:08	02/22/19 08:50
180-86954-4	SGWC-9	Water	02/20/19 09:13	02/22/19 08:50
180-86954-5	SGWC-10	Water	02/20/19 15:25	02/22/19 08:50
180-86954-6	SGWC-11	Water	02/20/19 11:09	02/22/19 08:50
180-86954-7	SGWC-12	Water	02/20/19 09:36	02/22/19 08:50
180-86954-8	SGWC-13	Water	02/20/19 10:05	02/22/19 08:50
180-86954-9	SGWC-14	Water	02/20/19 09:25	02/22/19 08:50
180-86954-10	FB-2	Water	02/20/19 13:25	02/22/19 08:50
180-86954-11	EB-2	Water	02/20/19 12:00	02/22/19 08:50
180-86954-12	DUP-2	Water	02/20/19 00:00	02/22/19 08:50
180-86954-13	SGWC-15	Water	02/20/19 11:36	02/22/19 08:50
180-86954-14	SGWC-16	Water	02/20/19 13:07	02/22/19 08:50
180-86954-15	SGWC-17	Water	02/20/19 13:15	02/22/19 08:50
180-86954-16	SGWC-18	Water	02/20/19 14:16	02/22/19 08:50
180-86954-17	SGWC-19	Water	02/20/19 15:56	02/22/19 08:50
180-86954-18	SGWC-20	Water	02/20/19 14:25	02/22/19 08:50
180-86954-19	SGWC-21	Water	02/20/19 09:54	02/22/19 08:50
180-86954-20	FB-3	Water	02/20/19 16:30	02/22/19 08:50
180-86954-21	EB-3	Water	02/20/19 16:15	02/22/19 08:50
180-86954-22	DUP-3	Water	02/20/19 00:00	02/22/19 08:50

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-6

Date Collected: 02/20/19 09:45

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-1

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			1000.97 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.97 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:40	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-7

Date Collected: 02/20/19 11:00

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-2

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			999.17 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.17 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:40	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-8

Date Collected: 02/20/19 12:08

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-3

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			1000.76 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.76 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:40	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-9

Date Collected: 02/20/19 09:13

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-4

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			1000.03 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-9

Lab Sample ID: 180-86954-4

Date Collected: 02/20/19 09:13

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420408	03/21/19 05:55	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.03 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-10

Lab Sample ID: 180-86954-5

Date Collected: 02/20/19 15:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.94 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.94 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:40	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-11

Lab Sample ID: 180-86954-6

Date Collected: 02/20/19 11:09

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.60 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.60 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:40	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.83 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.83 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:40	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-13

Lab Sample ID: 180-86954-8

Date Collected: 02/20/19 10:05

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.35 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.35 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:41	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-14

Lab Sample ID: 180-86954-9

Date Collected: 02/20/19 09:25

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.67 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL
Total/NA	Analysis	9315		1			420408	03/21/19 05:55	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.67 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-2

Lab Sample ID: 180-86954-10

Date Collected: 02/20/19 13:25

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.49 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: FB-2

Lab Sample ID: 180-86954-10

Date Collected: 02/20/19 13:25

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			421036	03/25/19 07:54	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.49 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:41	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-2

Lab Sample ID: 180-86954-11

Date Collected: 02/20/19 12:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.44 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421039	03/25/19 07:56	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			999.44 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:41	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-2

Lab Sample ID: 180-86954-12

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.70 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421039	03/25/19 07:56	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			999.70 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:41	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-15

Lab Sample ID: 180-86954-13

Date Collected: 02/20/19 11:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.45 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-15

Lab Sample ID: 180-86954-13

Date Collected: 02/20/19 11:36

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			421039	03/25/19 07:56	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			999.45 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:41	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-16

Lab Sample ID: 180-86954-14

Date Collected: 02/20/19 13:07

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.35 mL	1.0 g	417390	03/01/19 09:46	LTC	TAL SL
Total/NA	Analysis	9315		1			421039	03/25/19 07:56	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.35 mL	1.0 g	417407	03/01/19 11:52	LTC	TAL SL
Total/NA	Analysis	9320		1			419763	03/18/19 09:41	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-17

Lab Sample ID: 180-86954-15

Date Collected: 02/20/19 13:15

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.56 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL
Total/NA	Analysis	9315		1			420407	03/21/19 05:56	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.56 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-18

Lab Sample ID: 180-86954-16

Date Collected: 02/20/19 14:16

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.36 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-18

Lab Sample ID: 180-86954-16

Date Collected: 02/20/19 14:16

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420407	03/21/19 05:56	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.36 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-19

Lab Sample ID: 180-86954-17

Date Collected: 02/20/19 15:56

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.80 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL
Total/NA	Analysis	9315		1			420407	03/21/19 05:57	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.80 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-20

Lab Sample ID: 180-86954-18

Date Collected: 02/20/19 14:25

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.18 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL
Total/NA	Analysis	9315		1			420407	03/21/19 05:57	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.18 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.59 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420407	03/21/19 05:57	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.59 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-3

Lab Sample ID: 180-86954-20

Date Collected: 02/20/19 16:30

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.47 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL
Total/NA	Analysis	9315		1			420407	03/21/19 05:57	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.47 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:11	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-3

Lab Sample ID: 180-86954-21

Date Collected: 02/20/19 16:15

Matrix: Water

Date Received: 02/22/19 08:50

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			1000.35 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL
Total/NA	Analysis	9315		1			420407	03/21/19 05:57	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.35 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:12	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: DUP-3

Lab Sample ID: 180-86954-22

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.77 mL	1.0 g	417027	02/27/19 09:24	LTC	TAL SL

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: DUP-3

Lab Sample ID: 180-86954-22

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9315		1			420407	03/21/19 05:57	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.77 mL	1.0 g	417057	02/27/19 13:04	LTC	TAL SL
Total/NA	Analysis	9320		1			419467	03/15/19 09:12	KLS	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			421660	03/28/19 15:47	CDR	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

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

Analyst References:

Lab: TAL SL

Batch Type: Prep

LTC = Logan Curtright

Batch Type: Analysis

CDR = Conrad Reuscher

KLS = Kody Saulters

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-6
Date Collected: 02/20/19 09:45
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0465	U	0.0407	0.0409	1.00	0.111	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.250	U	0.211	0.213	1.00	0.336	pCi/L	03/01/19 11:52	03/18/19 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					03/01/19 11:52	03/18/19 09:40	1
Y Carrier	84.5		40 - 110					03/01/19 11:52	03/18/19 09:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.250	U	0.215	0.217	5.00	0.336	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-7
Date Collected: 02/20/19 11:00
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0665	U	0.0597	0.0600	1.00	0.0882	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.367		0.226	0.228	1.00	0.342	pCi/L	03/01/19 11:52	03/18/19 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/01/19 11:52	03/18/19 09:40	1
Y Carrier	84.5		40 - 110					03/01/19 11:52	03/18/19 09:40	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-7
Date Collected: 02/20/19 11:00
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-2
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.433		0.234	0.236	5.00	0.342	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-8
Date Collected: 02/20/19 12:08
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.387		0.127	0.131	1.00	0.126	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.11		0.371	0.419	1.00	0.388	pCi/L	03/01/19 11:52	03/18/19 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					03/01/19 11:52	03/18/19 09:40	1
Y Carrier	86.0		40 - 110					03/01/19 11:52	03/18/19 09:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.50		0.392	0.439	5.00	0.388	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-9
Date Collected: 02/20/19 09:13
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0400	U	0.0594	0.0595	1.00	0.102	pCi/L	02/27/19 09:24	03/21/19 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/27/19 09:24	03/21/19 05:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-9

Lab Sample ID: 180-86954-4

Date Collected: 02/20/19 09:13

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.385		0.243	0.246	1.00	0.372	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	84.1		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.425		0.250	0.253	5.00	0.372	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-10

Lab Sample ID: 180-86954-5

Date Collected: 02/20/19 15:25

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0159	U	0.0468	0.0468	1.00	0.0913	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.277	U	0.185	0.186	1.00	0.394	pCi/L	03/01/19 11:52	03/18/19 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					03/01/19 11:52	03/18/19 09:40	1
Y Carrier	81.9		40 - 110					03/01/19 11:52	03/18/19 09:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0159	U	0.191	0.192	5.00	0.394	pCi/L		03/28/19 15:47	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-11

Lab Sample ID: 180-86954-6

Date Collected: 02/20/19 11:09

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0761	U	0.0697	0.0701	1.00	0.107	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.632		0.250	0.256	1.00	0.342	pCi/L	03/01/19 11:52	03/18/19 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/01/19 11:52	03/18/19 09:40	1
Y Carrier	82.2		40 - 110					03/01/19 11:52	03/18/19 09:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.708		0.260	0.265	5.00	0.342	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0520	U	0.0569	0.0571	1.00	0.0901	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.109	U	0.207	0.207	1.00	0.353	pCi/L	03/01/19 11:52	03/18/19 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/01/19 11:52	03/18/19 09:40	1
Y Carrier	84.1		40 - 110					03/01/19 11:52	03/18/19 09:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-12

Lab Sample ID: 180-86954-7

Date Collected: 02/20/19 09:36

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.161	U	0.215	0.215	5.00	0.353	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-13

Lab Sample ID: 180-86954-8

Date Collected: 02/20/19 10:05

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.0120	U	0.0358	0.0358	1.00	0.0892	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.222	U	0.223	0.224	1.00	0.362	pCi/L	03/01/19 11:52	03/18/19 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					03/01/19 11:52	03/18/19 09:41	1
Y Carrier	84.1		40 - 110					03/01/19 11:52	03/18/19 09:41	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.222	U	0.226	0.227	5.00	0.362	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-14

Lab Sample ID: 180-86954-9

Date Collected: 02/20/19 09:25

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0754	U	0.0640	0.0643	1.00	0.0938	pCi/L	02/27/19 09:24	03/21/19 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/27/19 09:24	03/21/19 05:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-14

Lab Sample ID: 180-86954-9

Date Collected: 02/20/19 09:25

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0719	U	0.189	0.189	1.00	0.328	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	85.6		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.147	U	0.200	0.200	5.00	0.328	pCi/L		03/28/19 15:47	1

Client Sample ID: FB-2

Lab Sample ID: 180-86954-10

Date Collected: 02/20/19 13:25

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0337	U	0.0566	0.0567	1.00	0.0994	pCi/L	03/01/19 09:46	03/25/19 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/01/19 09:46	03/25/19 07:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0123	U	0.194	0.194	1.00	0.349	pCi/L	03/01/19 11:52	03/18/19 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/01/19 11:52	03/18/19 09:41	1
Y Carrier	84.5		40 - 110					03/01/19 11:52	03/18/19 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0460	U	0.202	0.202	5.00	0.349	pCi/L		03/28/19 15:47	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: EB-2

Lab Sample ID: 180-86954-11

Date Collected: 02/20/19 12:00

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0458	0.0458	1.00	0.0960	pCi/L	03/01/19 09:46	03/25/19 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/01/19 09:46	03/25/19 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0694	U	0.199	0.200	1.00	0.347	pCi/L	03/01/19 11:52	03/18/19 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/01/19 11:52	03/18/19 09:41	1
Y Carrier	84.9		40 - 110					03/01/19 11:52	03/18/19 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0694	U	0.204	0.205	5.00	0.347	pCi/L		03/28/19 15:47	1

Client Sample ID: DUP-2

Lab Sample ID: 180-86954-12

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.461		0.129	0.135	1.00	0.0940	pCi/L	03/01/19 09:46	03/25/19 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					03/01/19 09:46	03/25/19 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.61		0.422	0.485	1.00	0.387	pCi/L	03/01/19 11:52	03/18/19 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					03/01/19 11:52	03/18/19 09:41	1
Y Carrier	79.3		40 - 110					03/01/19 11:52	03/18/19 09:41	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: DUP-2

Date Collected: 02/20/19 00:00

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-12

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.07		0.441	0.503	5.00	0.387	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-15

Date Collected: 02/20/19 11:36

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0201	U	0.0527	0.0528	1.00	0.100	pCi/L	03/01/19 09:46	03/25/19 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					03/01/19 09:46	03/25/19 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.552		0.262	0.267	1.00	0.376	pCi/L	03/01/19 11:52	03/18/19 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					03/01/19 11:52	03/18/19 09:41	1
Y Carrier	86.4		40 - 110					03/01/19 11:52	03/18/19 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.573		0.267	0.272	5.00	0.376	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-16

Date Collected: 02/20/19 13:07

Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0130	U	0.0366	0.0366	1.00	0.0727	pCi/L	03/01/19 09:46	03/25/19 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/01/19 09:46	03/25/19 07:56	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-16

Lab Sample ID: 180-86954-14

Date Collected: 02/20/19 13:07

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0554	U	0.168	0.168	1.00	0.295	pCi/L	03/01/19 11:52	03/18/19 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/01/19 11:52	03/18/19 09:41	1
Y Carrier	89.0		40 - 110					03/01/19 11:52	03/18/19 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0684	U	0.172	0.172	5.00	0.295	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-17

Lab Sample ID: 180-86954-15

Date Collected: 02/20/19 13:15

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0255	U	0.0622	0.0623	1.00	0.114	pCi/L	02/27/19 09:24	03/21/19 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/27/19 09:24	03/21/19 05:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.252	U	0.229	0.230	1.00	0.369	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	81.9		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.278	U	0.237	0.238	5.00	0.369	pCi/L		03/28/19 15:47	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-18

Lab Sample ID: 180-86954-16

Date Collected: 02/20/19 14:16

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0745	U	0.0647	0.0651	1.00	0.0941	pCi/L	02/27/19 09:24	03/21/19 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					02/27/19 09:24	03/21/19 05:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0647	U	0.206	0.206	1.00	0.360	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	83.0		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.139	U	0.216	0.216	5.00	0.360	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-19

Lab Sample ID: 180-86954-17

Date Collected: 02/20/19 15:56

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0282	U	0.0562	0.0563	1.00	0.102	pCi/L	02/27/19 09:24	03/21/19 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/27/19 09:24	03/21/19 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0854	U	0.214	0.214	1.00	0.369	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	86.7		40 - 110					02/27/19 13:04	03/15/19 09:11	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-19

Lab Sample ID: 180-86954-17

Date Collected: 02/20/19 15:56

Matrix: Water

Date Received: 02/22/19 08:50

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.114	U	0.221	0.221	5.00	0.369	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-20

Lab Sample ID: 180-86954-18

Date Collected: 02/20/19 14:25

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0116	U	0.0484	0.0484	1.00	0.0965	pCi/L	02/27/19 09:24	03/21/19 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					02/27/19 09:24	03/21/19 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.341		0.219	0.221	1.00	0.335	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	88.2		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.353		0.224	0.226	5.00	0.335	pCi/L		03/28/19 15:47	1

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0499	U	0.0543	0.0545	1.00	0.0851	pCi/L	02/27/19 09:24	03/21/19 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/27/19 09:24	03/21/19 05:57	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: SGWC-21

Lab Sample ID: 180-86954-19

Date Collected: 02/20/19 09:54

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.189	U	0.197	0.198	1.00	0.321	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	84.5		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.239	U	0.204	0.205	5.00	0.321	pCi/L		03/28/19 15:47	1

Client Sample ID: FB-3

Lab Sample ID: 180-86954-20

Date Collected: 02/20/19 16:30

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0501	0.0501	1.00	0.106	pCi/L	02/27/19 09:24	03/21/19 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/27/19 09:24	03/21/19 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.631		0.257	0.264	1.00	0.355	pCi/L	02/27/19 13:04	03/15/19 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/27/19 13:04	03/15/19 09:11	1
Y Carrier	81.5		40 - 110					02/27/19 13:04	03/15/19 09:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.631		0.262	0.269	5.00	0.355	pCi/L		03/28/19 15:47	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Client Sample ID: EB-3

Lab Sample ID: 180-86954-21

Date Collected: 02/20/19 16:15

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0190	U	0.0462	0.0463	1.00	0.0882	pCi/L	02/27/19 09:24	03/21/19 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/27/19 09:24	03/21/19 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.113	U	0.197	0.197	1.00	0.335	pCi/L	02/27/19 13:04	03/15/19 09:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/27/19 13:04	03/15/19 09:12	1
Y Carrier	84.5		40 - 110					02/27/19 13:04	03/15/19 09:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.132	U	0.202	0.202	5.00	0.335	pCi/L		03/28/19 15:47	1

Client Sample ID: DUP-3

Lab Sample ID: 180-86954-22

Date Collected: 02/20/19 00:00

Matrix: Water

Date Received: 02/22/19 08:50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00540	U	0.0426	0.0426	1.00	0.0900	pCi/L	02/27/19 09:24	03/21/19 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/27/19 09:24	03/21/19 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00206	U	0.176	0.176	1.00	0.321	pCi/L	02/27/19 13:04	03/15/19 09:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/27/19 13:04	03/15/19 09:12	1
Y Carrier	85.6		40 - 110					02/27/19 13:04	03/15/19 09:12	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
 SDG: Ash

Client Sample ID: DUP-3
Date Collected: 02/20/19 00:00
Date Received: 02/22/19 08:50

Lab Sample ID: 180-86954-22
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.00540	U	0.181	0.181	5.00	0.321	pCi/L		03/28/19 15:47	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-417027/22-A
Matrix: Water
Analysis Batch: 420396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417027

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02977	U	0.0576	0.0577	1.00	0.104	pCi/L	02/27/19 09:24	03/21/19 06:02	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/27/19 09:24	03/21/19 06:02	1

Lab Sample ID: LCS 160-417027/1-A
Matrix: Water
Analysis Batch: 420408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417027

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	8.935		0.957	1.00	0.0854	pCi/L	79	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	101		40 - 110						

Lab Sample ID: LCSD 160-417027/2-A
Matrix: Water
Analysis Batch: 420408

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 417027

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	10.07		1.05	1.00	0.110	pCi/L	89	68 - 137	0.57	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	99.1		40 - 110								

Lab Sample ID: MB 160-417390/23-A
Matrix: Water
Analysis Batch: 421039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417390

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.006973	U	0.0390	0.0390	1.00	0.0890	pCi/L	03/01/19 09:46	03/25/19 07:57	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/01/19 09:46	03/25/19 07:57	1

Lab Sample ID: LCS 160-417390/1-A
Matrix: Water
Analysis Batch: 421036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417390

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.017		0.967	1.00	0.0734	pCi/L	79	68 - 137

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

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

Lab Sample ID: LCS 160-417390/1-A
Matrix: Water
Analysis Batch: 421036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417390

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	104		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-417057/22-A
Matrix: Water
Analysis Batch: 419466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417057

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08180	U	0.190	0.191	1.00	0.328	pCi/L	02/27/19 13:04	03/15/19 09:08	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110	02/27/19 13:04	03/15/19 09:08	1
Y Carrier	85.2		40 - 110	02/27/19 13:04	03/15/19 09:08	1

Lab Sample ID: LCS 160-417057/1-A
Matrix: Water
Analysis Batch: 419467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417057

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.39	9.258		1.06	1.00	0.352	pCi/L	99	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: LCSD 160-417057/2-A
Matrix: Water
Analysis Batch: 419467

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 417057

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	9.39	9.523		1.09	1.00	0.352	pCi/L	101	56 - 140	0.12	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.1		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: MB 160-417407/23-A
Matrix: Water
Analysis Batch: 419763

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417407

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.09456	U	0.216	0.216	1.00	0.371	pCi/L	03/01/19 11:52	03/18/19 09:42	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
 SDG: Ash

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	104		40 - 110
Y Carrier	88.6		40 - 110

Prepared	Analyzed	Dil Fac
03/01/19 11:52	03/18/19 09:42	1
03/01/19 11:52	03/18/19 09:42	1

Lab Sample ID: LCS 160-417407/1-A
 Matrix: Water
 Analysis Batch: 419763

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 417407

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.
									Limits
Radium-228	9.39	8.980		1.03	1.00	0.319	pCi/L	96	56 - 140

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	104		40 - 110
Y Carrier	85.6		40 - 110

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Rad

Prep Batch: 417027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-4	SGWC-9	Total/NA	Water	PrecSep-21	
180-86954-9	SGWC-14	Total/NA	Water	PrecSep-21	
180-86954-15	SGWC-17	Total/NA	Water	PrecSep-21	
180-86954-16	SGWC-18	Total/NA	Water	PrecSep-21	
180-86954-17	SGWC-19	Total/NA	Water	PrecSep-21	
180-86954-18	SGWC-20	Total/NA	Water	PrecSep-21	
180-86954-19	SGWC-21	Total/NA	Water	PrecSep-21	
180-86954-20	FB-3	Total/NA	Water	PrecSep-21	
180-86954-21	EB-3	Total/NA	Water	PrecSep-21	
180-86954-22	DUP-3	Total/NA	Water	PrecSep-21	
MB 160-417027/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-417027/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-417027/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 417057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-4	SGWC-9	Total/NA	Water	PrecSep_0	
180-86954-9	SGWC-14	Total/NA	Water	PrecSep_0	
180-86954-15	SGWC-17	Total/NA	Water	PrecSep_0	
180-86954-16	SGWC-18	Total/NA	Water	PrecSep_0	
180-86954-17	SGWC-19	Total/NA	Water	PrecSep_0	
180-86954-18	SGWC-20	Total/NA	Water	PrecSep_0	
180-86954-19	SGWC-21	Total/NA	Water	PrecSep_0	
180-86954-20	FB-3	Total/NA	Water	PrecSep_0	
180-86954-21	EB-3	Total/NA	Water	PrecSep_0	
180-86954-22	DUP-3	Total/NA	Water	PrecSep_0	
MB 160-417057/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-417057/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-417057/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 417390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total/NA	Water	PrecSep-21	
180-86954-2	SGWC-7	Total/NA	Water	PrecSep-21	
180-86954-3	SGWC-8	Total/NA	Water	PrecSep-21	
180-86954-5	SGWC-10	Total/NA	Water	PrecSep-21	
180-86954-6	SGWC-11	Total/NA	Water	PrecSep-21	
180-86954-7	SGWC-12	Total/NA	Water	PrecSep-21	
180-86954-8	SGWC-13	Total/NA	Water	PrecSep-21	
180-86954-10	FB-2	Total/NA	Water	PrecSep-21	
180-86954-11	EB-2	Total/NA	Water	PrecSep-21	
180-86954-12	DUP-2	Total/NA	Water	PrecSep-21	
180-86954-13	SGWC-15	Total/NA	Water	PrecSep-21	
180-86954-14	SGWC-16	Total/NA	Water	PrecSep-21	
MB 160-417390/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-417390/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 417407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-1	SGWC-6	Total/NA	Water	PrecSep_0	
180-86954-2	SGWC-7	Total/NA	Water	PrecSep_0	

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

TestAmerica Job ID: 180-86954-2
SDG: Ash

Rad (Continued)

Prep Batch: 417407 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86954-3	SGWC-8	Total/NA	Water	PrecSep_0	
180-86954-5	SGWC-10	Total/NA	Water	PrecSep_0	
180-86954-6	SGWC-11	Total/NA	Water	PrecSep_0	
180-86954-7	SGWC-12	Total/NA	Water	PrecSep_0	
180-86954-8	SGWC-13	Total/NA	Water	PrecSep_0	
180-86954-10	FB-2	Total/NA	Water	PrecSep_0	
180-86954-11	EB-2	Total/NA	Water	PrecSep_0	
180-86954-12	DUP-2	Total/NA	Water	PrecSep_0	
180-86954-13	SGWC-15	Total/NA	Water	PrecSep_0	
180-86954-14	SGWC-16	Total/NA	Water	PrecSep_0	
MB 160-417407/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-417407/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

TestAmerica Pittsburgh

301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238-2907
phone 412.983.7058 fax 412.983.2468

Chain of Custody Record



180-86954 Chain of Custody



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA, 30308 (404) 506-7239 Phone FAX		Project Manager: Dawn Prell Tel/Fax: 248-538-5445		Site Contact: Travis Martinez Lab Contact: Veronica Bortot		Date:	COC No: 1 of 2 COCs	
Project Name: GPC Plant Scherer Site: Ash Pond P O # 186235018		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y/N)		Carrier:	Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	Sample Specific Notes:	
SGWC-6	02/20/19	9:45	G	GW	4	N		
SGWC-7	02/20/19	11:00	G	GW	4	N		
SGWC-8	02/20/19	12:08	G	GW	4	N		
SGWC-9	02/21/19	09:13	G	GW	4	N	Extra Radium - (2 x 1/2 Gal)	
SGWC-10	02/20/19	15:25	G	GW	4	N		
SGWC-11	02/20/19	11:09	G	GW	4	N		
SGWC-12	02/20/19	09:36	G	GW	4	N		
SGWC-13	02/20/19	10:05	G	GW	4	N		
SGWC-14	02/21/19	09:25	G	GW	4	N	Extra Radium - (2 x 1/2 Gal)	
FB-2	02/20/19	13:25	G	W	4	N		
EB-2	02/20/19	12:00	G	W	4	N		
DUP-2	02/20/19	-	G	GW	4	N		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						4	1	4
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		
Special Instructions/QC Requirements & Comments: Attorney Client Privileged. Report J-Flags.								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Therm ID No.:		
Relinquished by: <i>Jean Z...</i>	Company: <i>...</i>	Date/Time: <i>2/11/19 12:55</i>	Received by: <i>Jy</i>	Company: <i>TA</i>	Date/Time: <i>2/21/19 12:55</i>			
Relinquished by: <i>Jy</i>	Company: <i>TA</i>	Date/Time: <i>16:10</i>	Received by: <i>Jy</i>	Company: <i>TA</i>	Date/Time: <i>2/21/19</i>			
Relinquished by: <i>Jy</i>	Company: <i>TA</i>	Date/Time: <i>2/21/19</i>	Received in Laboratory by:	Company: <i>TA</i>	Date/Time: <i>2/21/19</i>			

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018



TestAmerica Pittsburgh

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Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: Dawn Prell		Site Contact: Travis Martinez		Date:		COC No:		
Southern Company		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		2 of 2 COCs		
241 Ralph McGill Blvd SE B10185		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N) 6020 - Sb,As,Ba,Be,Cd,Cr,Cu,Pb,LI,Mo,Se, TI, 7470A - Hg 300_ORGFM_28D-Fluoride 9315_Ra226, 9320_Ra228, Ra226Ra228_GFFC		TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sampler:		
Atlanta, GA, 30308		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:		
(404) 506-7239 Phone								Walk-in Client:		
FAX								Lab Sampling:		
Project Name: GPC Plant Scherer								Job / SDG No.:		
Site: Ash Pond										
P O # 166235018										
								Sample Specific Notes:		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.					
SGWC-15	02/20/19	11:36	G	GW	4	N				
SGWC-16	02/20/19	13:07	G	GW	4	N				
SGWC-17	02/20/19	13:15	G	GW	4	N				
SGWC-18	02/20/19	14:16	G	GW	4	N				
SGWC-19	02/20/19	15:56	G	GW	4	N				
SGWC-20	02/20/19	14:25	G	GW	4	N				
SGWC-21	02/21/19	09:54	G	GW	6	N			Extra Radium	
FB-3	02/20/19	16:30	G	W	4	N				
EB-3	02/20/19	16:15	G	W	4	N				
DUP-3	02/20/19	--	G	GW	4	N				
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4	1	4	
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months			
Special Instructions/QC Requirements & Comments: Attorney Client Privilege. Report J-Flags.										
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:		
Relinquished by: <i>Jan 2/19</i>		Company: Golder Associates		Date/Time: 2-21-19 12:45		Received by: <i>JA</i>		Company: <i>2/21/19</i>		
Relinquished by: <i>2/24/19</i>		Company: <i>16:10</i>		Date/Time:		Received by:		Company:		
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		



TestAmerica

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Part # 159469-434 RITZ EXP 10/19

RITZ EXP 10/19

ORIGIN ID:MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 21 FEB 2019
ACTWGT: 56.90 LBS
CAD: 859116/CAFE3211

BILL RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7868
REF: SOUTHERN CO.

(US)



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4 of 6

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0263

Mstr# 4651 0080 6516

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FRI - 22 FEB 3:00P
STANDARD OVERNIGHT

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Uncorrected temp 21 °C
Thermometer ID 10
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PT-WI-SR-001 effective 11/8/18

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Part # 159469-434 RITZ EXP 10/19

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Test America

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GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE

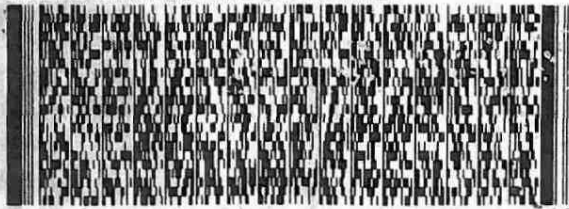
SHIP DATE: 21FEB19
ACTWGT: 56.80 LB
CAD: 859116/CAFE3211

NORCROSS, GA 30093
UNITED STATES US

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FRI - 22 FEB 3:00P
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Mstr# 4651 0080 6516

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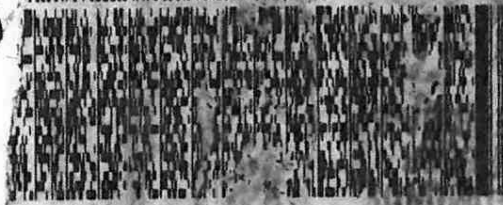
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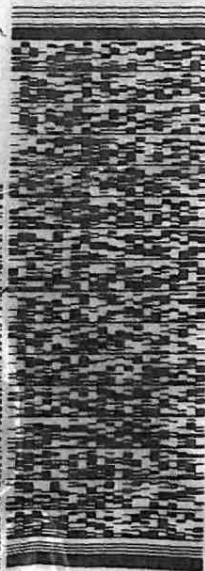
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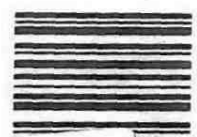
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Part # 159469-434 RIT2 EXP 10/19

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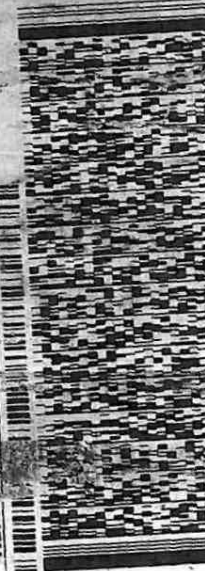
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SHIP DATE: 21FEB19
ACTWT: 56.80 LB
CAD: 859116/CAFE3211

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5 of 6
MPS# 4651 0080 6550
Mstr# 4651 0080 6516

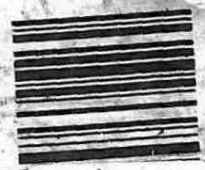
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Uncorrected temp 11.9 °C
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CF 0 Initials TS

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86954-2

SDG Number: Ash

Login Number: 86954

List Number: 1

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86954-2

SDG Number: Ash

Login Number: 86954

List Number: 2

Creator: Hellm, Michael

List Source: TestAmerica St. Louis

List Creation: 02/26/19 03:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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	19.0
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86954-2

SDG Number: Ash

Login Number: 86954

List Number: 3

Creator: Hellm, Michael

List Source: TestAmerica St. Louis

List Creation: 02/26/19 04:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	
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	19.0
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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX A

ANALYTICAL RESULTS

March/April 2019

ANALYTICAL REPORT

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

Laboratory Job ID: 180-88347-1

Laboratory Sample Delivery Group: Ash Pond
Client Project/Site: CCR - Plant Scherer

For:

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

Attn: Joju Abraham



Authorized for release by:
5/10/2019 2:22:50 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.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: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Job ID: 180-88347-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-88347-1

Comments

No additional comments.

Receipt

The samples were received on 3/30/2019 10:00 AM, 4/3/2019 9:40 AM and 4/4/2019 8:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 1.2° C, 1.3° C, 1.3° C, 1.5° C, 2.1° C, 3.1° C, 3.1° C, 3.5° C and 4.8° C.

GC Semi VOA

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

RAD

Method(s) PrecSep-21: Radium 226 Prep Batch 160-423239:

Insufficient sample volume was available to perform a sample duplicate for the following samples: SGWC22 (180-88533-8), SGWC23 (180-88533-9), FB-3 (AP) (180-88533-10), EB-3 (AP) (180-88533-11) and FD-3 (AP) (180-88533-12). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-423240:

Insufficient sample volume was available to perform a sample duplicate for the following samples: SGWC22 (180-88533-8), SGWC23 (180-88533-9), FB-3 (AP) (180-88533-10), EB-3 (AP) (180-88533-11) and FD-3 (AP) (180-88533-12). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-423241:

Insufficient sample volume was available to perform a sample duplicate for the following samples: SGWC-7 (180-88428-1), SGWC-8 (180-88428-2), SGWC-9 (180-88428-3), SGWC-10 (180-88428-4), SGWC-11 (180-88428-5), SGWC-12 (180-88428-6), SGWC-13 (180-88428-7), SGWC-14 (180-88428-8), SGWC-15 (180-88428-9), EB-2 (AP) (180-88428-10), FB-2 (AP) (180-88428-11), FD-2 (AP) (180-88428-12), SGWC-6 (180-88533-1), SGWC-16 (180-88533-2), SGWC-17 (180-88533-3), SGWC-18 (180-88533-4), SGWC-19 (180-88533-5), SGWC-20 (180-88533-6) and SGWC-21 (180-88533-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-423242:

Insufficient sample volume was available to perform a sample duplicate for the following samples: SGWC-7 (180-88428-1), SGWC-8 (180-88428-2), SGWC-9 (180-88428-3), SGWC-10 (180-88428-4), SGWC-11 (180-88428-5), SGWC-12 (180-88428-6), SGWC-13 (180-88428-7), SGWC-14 (180-88428-8), SGWC-15 (180-88428-9), EB-2 (AP) (180-88428-10), FB-2 (AP) (180-88428-11), FD-2 (AP) (180-88428-12), SGWC-6 (180-88533-1), SGWC-16 (180-88533-2), SGWC-17 (180-88533-3), SGWC-18 (180-88533-4), SGWC-19 (180-88533-5), SGWC-20 (180-88533-6) and SGWC-21 (180-88533-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-423612:

Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-423612. An LCS/LCSD was created to demonstrate precision.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-423844:

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Job ID: 180-88347-1 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Insufficient sample volume was available to perform a sample duplicate (DUP) associated with preparation batch 160-423844.

Method(s) 904.0, 9320: Radium-228 Prep Batch 160-423242

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.

SGWC-7 (180-88428-1), SGWC-8 (180-88428-2), SGWC-9 (180-88428-3), SGWC-10 (180-88428-4), SGWC-11 (180-88428-5), SGWC-12 (180-88428-6), SGWC-13 (180-88428-7), SGWC-14 (180-88428-8), SGWC-15 (180-88428-9), EB-2 (AP) (180-88428-10), FB-2 (AP) (180-88428-11), FD-2 (AP) (180-88428-12), SGWC-6 (180-88533-1), SGWC-16 (180-88533-2), SGWC-17 (180-88533-3), SGWC-18 (180-88533-4), SGWC-19 (180-88533-5), SGWC-20 (180-88533-6), SGWC-21 (180-88533-7), (LCS 160-423242/1-A), (LCSD 160-423242/2-A) and (MB 160-423242/23-A)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-423240

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.

SGWC22 (180-88533-8), SGWC23 (180-88533-9), FB-3 (AP) (180-88533-10), EB-3 (AP) (180-88533-11), FD-3 (AP) (180-88533-12), (LCS 160-423240/1-A) and (LCSD 160-423240/2-A)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-423240

Ra-228 batch 423240 started counting on GFPC on 4/19/2019. The MB count associated with the batch failed to start. However, all the samples reported in this batch exhibited activity below the MDC. All other QC parameters are within limits. The laboratory does not believe this excursion adversely affects the sample data.

SGWC22 (180-88533-8), SGWC23 (180-88533-9), FB-3 (AP) (180-88533-10), EB-3 (AP) (180-88533-11), FD-3 (AP) (180-88533-12), (LCS 160-423240/1-A) and (LCSD 160-423240/2-A)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-423844

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.

SGWA-4 (180-88347-1), SGWA-5 (180-88347-2), SGWA-25 (180-88347-3), SGWA-3 (180-88347-4), FD-1 (AP) (180-88347-5), FB-1 (AP) (180-88347-6), EB-1 (AP) (180-88347-7), SGWA-1 (180-88347-8), SGWA-2 (180-88347-9), SGWA-24 (180-88347-10), (LCS 160-423844/1-A), (LCSD 160-423844/2-A) and (MB 160-423844/23-A)

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-423241

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.

SGWC-7 (180-88428-1), SGWC-8 (180-88428-2), SGWC-9 (180-88428-3), SGWC-10 (180-88428-4), SGWC-11 (180-88428-5), SGWC-12 (180-88428-6), SGWC-13 (180-88428-7), SGWC-14 (180-88428-8), SGWC-15 (180-88428-9), EB-2 (AP) (180-88428-10), FB-2 (AP) (180-88428-11), SGWC-16 (180-88533-2), SGWC-17 (180-88533-3), SGWC-18 (180-88533-4), SGWC-19 (180-88533-5), SGWC-20 (180-88533-6), SGWC-21 (180-88533-7), (LCS 160-423241/1-A), (LCSD 160-423241/2-A) and (MB 160-423241/23-A)

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Job ID: 180-88347-1 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-423239

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.

SGWC22 (180-88533-8), SGWC23 (180-88533-9), FB-3 (AP) (180-88533-10), EB-3 (AP) (180-88533-11), FD-3 (AP) (180-88533-12), (LCS 160-423239/1-A), (LCSD 160-423239/2-A) and (MB 160-423239/23-A)

Method(s) 9315: Ra-226 Prep Batch 160-423241

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.

FD-2 (AP) (180-88428-12) and SGWC-6 (180-88533-1)

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-423612

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.

SGWA-4 (180-88347-1), SGWA-5 (180-88347-2), SGWA-25 (180-88347-3), SGWA-3 (180-88347-4), FD-1 (AP) (180-88347-5), FB-1 (AP) (180-88347-6), EB-1 (AP) (180-88347-7), SGWA-1 (180-88347-8), SGWA-2 (180-88347-9), SGWA-24 (180-88347-10), (LCS 160-423612/1-A), (LCSD 160-423612/2-A) and (MB 160-423612/23-A)

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

Metals

Method(s) 6020: The post digestion spike % recovery for Boron and Lead associated with batch 400-436341 was outside of control limits. The following sample is impacted: (180-88290-B-1-B PDS ^5).

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-435839 and analytical batch 400-436341 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 200.8, 6020: The post digestion spike % recovery associated with batch 400-436932 was outside of control limits.

Method(s) 200.8, 6020, SM 2340B: The following sample was diluted to bring the concentration of target analytes within the calibration range: SGWC-9 (180-88428-3). Elevated reporting limits (RLs) are provided.

Method(s) 200.8, 6020, SM 2340B: The following samples were diluted to bring the concentration of target analytes within the calibration range: SGWC-18 (180-88533-4), SGWC19 (180-88533-5), SGWC-20 (180-88533-6) and FD-3 (AP) (180-88533-12). Elevated reporting limits (RLs) are provided.

Method(s) 200.8, 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-437187 and analytical batch 400-437398 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Job ID: 180-88347-1 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

General Chemistry

Method(s) SM 2540C: Reanalysis of the following samples were performed outside of the analytical holding time due to error in initial analysis.

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

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-20
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Eurofins TestAmerica, Pittsburgh

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
 SDG: Ash Pond

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
 SDG: Ash Pond

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	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-88347-1	SGWA-4	Water	03/28/19 12:56	03/30/19 10:00
180-88347-2	SGWA-5	Water	03/28/19 13:45	03/30/19 10:00
180-88347-3	SGWA-25	Water	03/28/19 14:38	03/30/19 10:00
180-88347-4	SGWA-3	Water	03/28/19 14:40	03/30/19 10:00
180-88347-5	FD-1 (AP)	Water	03/28/19 00:00	03/30/19 10:00
180-88347-6	FB-1 (AP)	Water	03/28/19 13:40	03/30/19 10:00
180-88347-7	EB-1 (AP)	Water	03/28/19 15:00	03/30/19 10:00
180-88347-8	SGWA-1	Water	03/29/19 09:16	03/30/19 10:00
180-88347-9	SGWA-2	Water	03/29/19 10:07	03/30/19 10:00
180-88347-10	SGWA-24	Water	03/29/19 09:25	03/30/19 10:00
180-88428-1	SGWC-7	Water	04/01/19 11:56	04/03/19 09:40
180-88428-2	SGWC-8	Water	04/01/19 10:47	04/03/19 09:40
180-88428-3	SGWC-9	Water	04/01/19 11:20	04/03/19 09:40
180-88428-4	SGWC-10	Water	04/01/19 17:50	04/03/19 09:40
180-88428-5	SGWC-11	Water	04/01/19 11:25	04/03/19 09:40
180-88428-6	SGWC-12	Water	04/01/19 12:40	04/03/19 09:40
180-88428-7	SGWC-13	Water	04/01/19 13:40	04/03/19 09:40
180-88428-8	SGWC-14	Water	04/01/19 14:55	04/03/19 09:40
180-88428-9	SGWC-15	Water	04/01/19 16:25	04/03/19 09:40
180-88428-10	EB-2 (AP)	Water	04/01/19 17:30	04/03/19 09:40
180-88428-11	FB-2 (AP)	Water	04/01/19 10:50	04/03/19 09:40
180-88428-12	FD-2 (AP)	Water	04/01/19 00:00	04/03/19 09:40
180-88533-1	SGWC-6	Water	04/02/19 09:12	04/04/19 08:35
180-88533-2	SGWC-16	Water	04/02/19 10:34	04/04/19 08:35
180-88533-3	SGWC-17	Water	04/02/19 11:34	04/04/19 08:35
180-88533-4	SGWC-18	Water	04/02/19 09:00	04/04/19 08:35
180-88533-5	SGWC19	Water	04/02/19 10:20	04/04/19 08:35
180-88533-6	SGWC-20	Water	04/02/19 11:10	04/04/19 08:35
180-88533-7	SGWC-21	Water	04/02/19 09:05	04/04/19 08:35
180-88533-8	SGWC22	Water	04/02/19 09:50	04/04/19 08:35
180-88533-9	SGWC23	Water	04/02/19 11:05	04/04/19 08:35
180-88533-10	FB-3 (AP)	Water	04/02/19 09:00	04/04/19 08:35
180-88533-11	EB-3 (AP)	Water	04/02/19 12:00	04/04/19 08:35
180-88533-12	FD-3 (AP)	Water	04/02/19 00:00	04/04/19 08:35

Method Summary

Client: Southern Company
 Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
 SDG: Ash Pond

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

- TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
- TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
- TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-4

Lab Sample ID: 180-88347-1

Date Collected: 03/28/19 12:56

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			274458	04/01/19 18:34	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 22:33	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.11 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			427794	05/09/19 12:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.11 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Client Sample ID: SGWA-5

Lab Sample ID: 180-88347-2

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 11:26	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 22:38	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.24 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			427794	05/09/19 12:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.24 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-25

Lab Sample ID: 180-88347-3

Date Collected: 03/28/19 14:38

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 11:42	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 22:42	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.16 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			427794	05/09/19 12:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.16 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Client Sample ID: SGWA-3

Lab Sample ID: 180-88347-4

Date Collected: 03/28/19 14:40

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 10:22	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 22:45	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.14 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			427794	05/09/19 12:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.14 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FD-1 (AP)

Lab Sample ID: 180-88347-5

Date Collected: 03/28/19 00:00

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 10:38	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 22:50	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.11 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			427794	05/09/19 12:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.11 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Client Sample ID: FB-1 (AP)

Lab Sample ID: 180-88347-6

Date Collected: 03/28/19 13:40

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 12:29	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 22:53	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.09 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCPURPLE		1			427796	05/09/19 12:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.09 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: EB-1 (AP)

Lab Sample ID: 180-88347-7

Date Collected: 03/28/19 15:00

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 12:45	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 23:17	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.22 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCPURPLE		1			427796	05/09/19 12:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.22 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Client Sample ID: SGWA-1

Lab Sample ID: 180-88347-8

Date Collected: 03/29/19 09:16

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 08:00	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 23:21	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274838	04/04/19 12:11	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.31 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCPURPLE		1			427796	05/09/19 12:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.31 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-2

Lab Sample ID: 180-88347-9

Date Collected: 03/29/19 10:07

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 08:16	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 23:26	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274838	04/04/19 12:11	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.04 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			427793	05/09/19 12:44	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.04 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Client Sample ID: SGWA-24

Lab Sample ID: 180-88347-10

Date Collected: 03/29/19 09:25

Matrix: Water

Date Received: 03/30/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			274532	04/02/19 08:31	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	435839	04/04/19 10:15	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436341	04/04/19 23:29	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	435663	04/03/19 09:19	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436068	04/05/19 13:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274865	04/04/19 13:40	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			999.88 mL	1.0 g	423612	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCPURPLE		1			427796	05/09/19 12:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			999.88 mL	1.0 g	423844	04/14/19 16:53	MMO	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			426333	05/01/19 15:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			427856	05/10/19 09:12	SMP	TAL SL

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-7

Lab Sample ID: 180-88428-1

Date Collected: 04/01/19 11:56

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275670	04/13/19 09:33	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436932	04/12/19 09:35	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 09:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	274958	04/05/19 12:09	AVS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.74 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			426506	05/02/19 16:55	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.74 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			424352	04/18/19 15:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			426793	05/06/19 13:01	SMP	TAL SL

Client Sample ID: SGWC-8

Lab Sample ID: 180-88428-2

Date Collected: 04/01/19 10:47

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275670	04/13/19 09:48	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436932	04/12/19 09:39	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 09:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.38 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			426506	05/02/19 16:55	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.38 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			424352	04/18/19 15:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			426793	05/06/19 13:01	SMP	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-9

Lab Sample ID: 180-88428-3

Date Collected: 04/01/19 11:20

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275670	04/13/19 10:04	CMR	TAL PIT
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		5			275670	04/13/19 15:37	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436932	04/12/19 10:18	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700	DL	25			436932	04/12/19 12:01	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 10:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Total/NA	Prep	PrecSep-21			999.54 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCBLUE		1			426506	05/02/19 16:55	CDR	TAL SL
Total/NA	Prep	PrecSep_0			999.54 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			424352	04/18/19 15:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			426793	05/06/19 13:01	SMP	TAL SL

Client Sample ID: SGWC-10

Lab Sample ID: 180-88428-4

Date Collected: 04/01/19 17:50

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275670	04/13/19 10:20	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436932	04/12/19 10:22	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 10:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.08 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			426518	05/02/19 18:31	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.08 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			424352	04/18/19 15:31	CDR	TAL SL

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-10

Lab Sample ID: 180-88428-4

Date Collected: 04/01/19 17:50

Matrix: Water

Date Received: 04/03/19 09:40

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			426793	05/06/19 13:01	SMP	TAL SL

Client Sample ID: SGWC-11

Lab Sample ID: 180-88428-5

Date Collected: 04/01/19 11:25

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275670	04/13/19 10:36	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436932	04/12/19 10:26	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 10:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Total/NA	Prep	PrecSep-21			999.31 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			426518	05/02/19 18:32	CDR	TAL SL
Total/NA	Prep	PrecSep_0			999.31 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCORANGE		1			424352	04/18/19 15:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			426793	05/06/19 13:01	SMP	TAL SL

Client Sample ID: SGWC-12

Lab Sample ID: 180-88428-6

Date Collected: 04/01/19 12:40

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275670	04/13/19 10:52	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			436932	04/12/19 10:30	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 10:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.75 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			426518	05/02/19 18:32	CDR	TAL SL

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-12

Lab Sample ID: 180-88428-6

Date Collected: 04/01/19 12:40

Matrix: Water

Date Received: 04/03/19 09:40

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			1000.75 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424352	04/18/19 15:31	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-13

Lab Sample ID: 180-88428-7

Date Collected: 04/01/19 13:40

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275670	04/13/19 11:08	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436932	04/12/19 10:34	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 10:50	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1000.04 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426518	05/02/19 18:32	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.04 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424352	04/18/19 15:31	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-14

Lab Sample ID: 180-88428-8

Date Collected: 04/01/19 14:55

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275670	04/13/19 11:23	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436932	04/12/19 10:38	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 10:52	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-14

Lab Sample ID: 180-88428-8

Date Collected: 04/01/19 14:55

Matrix: Water

Date Received: 04/03/19 09:40

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			1000.76 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 13:21	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.76 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424352	04/18/19 15:31	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-15

Lab Sample ID: 180-88428-9

Date Collected: 04/01/19 16:25

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275670	04/13/19 12:11	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436932	04/12/19 10:42	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 10:55	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1000.34 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 11:22	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.34 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424352	04/18/19 15:31	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-2 (AP)

Lab Sample ID: 180-88428-10

Date Collected: 04/01/19 17:30

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275670	04/13/19 12:27	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436932	04/12/19 11:06	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 10:57	JAP	TAL PEN
Instrument ID: HYDRA AA2										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: EB-2 (AP)

Lab Sample ID: 180-88428-10

Date Collected: 04/01/19 17:30

Matrix: Water

Date Received: 04/03/19 09:40

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	275110	04/08/19 11:54	JAS	TAL PIT
Total/NA	Prep	PrecSep-21			1000.72 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 11:22	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.72 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424352	04/18/19 15:32	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-2 (AP)

Lab Sample ID: 180-88428-11

Date Collected: 04/01/19 10:50

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275670	04/13/19 12:42	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436932	04/12/19 11:09	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 10:59	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1000.10 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 11:22	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.10 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424352	04/18/19 15:32	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FD-2 (AP)

Lab Sample ID: 180-88428-12

Date Collected: 04/01/19 00:00

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275670	04/13/19 12:58	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436825	04/11/19 17:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436932	04/12/19 11:14	DRE	TAL PEN
Instrument ID: ICPMS7700										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FD-2 (AP)

Lab Sample ID: 180-88428-12

Date Collected: 04/01/19 00:00

Matrix: Water

Date Received: 04/03/19 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			40 mL	40 mL	436430	04/09/19 14:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 11:01	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	275110	04/08/19 11:54	JAS	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1000.20 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426507	05/02/19 18:34	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.20 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424353	04/18/19 15:33	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-6

Lab Sample ID: 180-88533-1

Date Collected: 04/02/19 09:12

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 17:55	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 05:02	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total Recoverable	Prep	3005A	RA		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5			437398	04/17/19 08:53	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 12:44	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1000.00 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426507	05/02/19 18:34	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Prep	PrecSep_0			1000.00 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424353	04/18/19 15:33	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-16

Lab Sample ID: 180-88533-2

Date Collected: 04/02/19 10:34

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275697	04/14/19 18:43	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			437398	04/17/19 05:22	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700	RA	5			437398	04/17/19 08:57	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 12:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.42 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			426594	05/03/19 11:22	CDR	TAL SL
Total/NA	Prep	PrecSep_0			1000.42 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320 Instrument ID: GFPCPURPLE		1			424353	04/18/19 15:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			426793	05/06/19 13:01	SMP	TAL SL

Client Sample ID: SGWC-17

Lab Sample ID: 180-88533-3

Date Collected: 04/02/19 11:34

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHICS2100B		1			275697	04/14/19 19:30	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			437398	04/17/19 05:26	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700	RA	5			437398	04/17/19 09:01	DRE	TAL PEN
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A Instrument ID: HYDRA AA2		1			436767	04/11/19 12:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			999.88 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315 Instrument ID: GFPCORANGE		1			426594	05/03/19 11:22	CDR	TAL SL

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-17

Lab Sample ID: 180-88533-3

Date Collected: 04/02/19 11:34

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.88 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424353	04/18/19 15:33	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-18

Lab Sample ID: 180-88533-4

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 21:37	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	EPA 300.0 R2.1		10			275697	04/14/19 21:52	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 05:30	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total Recoverable	Prep	3005A	RA		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5			437398	04/17/19 09:05	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total Recoverable	Prep	3005A	DL		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50			437398	04/17/19 09:08	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 12:50	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			999.34 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426595	05/03/19 11:20	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			999.34 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424353	04/18/19 15:33	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC19

Lab Sample ID: 180-88533-5

Date Collected: 04/02/19 10:20

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 19:46	CMR	TAL PIT
Instrument ID: CHICS2100B										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC19

Lab Sample ID: 180-88533-5

Date Collected: 04/02/19 10:20

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5			275743	04/15/19 10:04	CMR	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 05:54	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total Recoverable	Prep	3005A	DL		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25			437398	04/17/19 09:12	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 12:52	JAP	TAL PEN
		Instrument ID: HYDRA AA2								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			1000.33 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426595	05/03/19 11:20	CDR	TAL SL
		Instrument ID: GFPCBLUE								
Total/NA	Prep	PrecSep_0			1000.33 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424353	04/18/19 15:33	CDR	TAL SL
		Instrument ID: GFPCPURPLE								
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
		Instrument ID: NOEQUIP								

Client Sample ID: SGWC-20

Lab Sample ID: 180-88533-6

Date Collected: 04/02/19 11:10

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 20:02	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Analysis	EPA 300.0 R2.1		5			275743	04/15/19 10:20	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 05:58	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total Recoverable	Prep	3005A	DL		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25			437398	04/17/19 09:16	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 12:54	JAP	TAL PEN
		Instrument ID: HYDRA AA2								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
		Instrument ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			1000.03 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1			426595	05/03/19 11:20	CDR	TAL SL
		Instrument ID: GFPCBLUE								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-20

Lab Sample ID: 180-88533-6

Date Collected: 04/02/19 11:10

Matrix: Water

Date Received: 04/04/19 08:35

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			1000.03 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424353	04/18/19 15:33	CDR	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC-21

Lab Sample ID: 180-88533-7

Date Collected: 04/02/19 09:05

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 20:18	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 06:02	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 13:00	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1000.33 mL	1.0 g	423241	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	426595	05/03/19 11:20	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.33 mL	1.0 g	423242	04/10/19 14:13	CLP	TAL SL
Total/NA	Analysis	9320		1			424351	04/18/19 15:34	KLS	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC22

Lab Sample ID: 180-88533-8

Date Collected: 04/02/19 09:50

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 20:33	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 06:06	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 13:01	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC22

Lab Sample ID: 180-88533-8

Date Collected: 04/02/19 09:50

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.20 mL	1.0 g	423239	04/10/19 14:08	CLP	TAL SL
Total/NA	Analysis	9315		1			426506	05/02/19 19:08	CDR	TAL SL
Instrument ID: GFPCBLUE										
Total/NA	Prep	PrecSep_0			1000.20 mL	1.0 g	423240	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9320		1			424434	04/19/19 15:17	BLH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: SGWC23

Lab Sample ID: 180-88533-9

Date Collected: 04/02/19 11:05

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 20:49	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 06:10	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 13:04	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			999.16 mL	1.0 g	423239	04/10/19 14:08	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 13:25	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.16 mL	1.0 g	423240	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9320		1			424434	04/19/19 15:17	BLH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FB-3 (AP)

Lab Sample ID: 180-88533-10

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 21:05	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 06:14	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 13:06	JAP	TAL PEN
Instrument ID: HYDRA AA2										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FB-3 (AP)

Lab Sample ID: 180-88533-10

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

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	276061	04/17/19 15:52	TAM	TAL PIT
Total/NA	Prep	PrecSep-21			1000.86 mL	1.0 g	423239	04/10/19 14:08	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 13:25	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			1000.86 mL	1.0 g	423240	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9320		1			424434	04/19/19 15:17	BLH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: EB-3 (AP)

Lab Sample ID: 180-88533-11

Date Collected: 04/02/19 12:00

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275697	04/14/19 21:21	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 06:18	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 13:08	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			999.82 mL	1.0 g	423239	04/10/19 14:08	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 13:25	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.82 mL	1.0 g	423240	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9320		1			424434	04/19/19 15:17	BLH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Client Sample ID: FD-3 (AP)

Lab Sample ID: 180-88533-12

Date Collected: 04/02/19 00:00

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275706	04/15/19 07:08	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total/NA	Analysis	EPA 300.0 R2.1		10			275706	04/15/19 07:24	MJH	TAL PIT
Instrument ID: CHIC2100A										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FD-3 (AP)

Lab Sample ID: 180-88533-12

Date Collected: 04/02/19 00:00

Matrix: Water

Date Received: 04/04/19 08:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			437398	04/17/19 07:05	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total Recoverable	Prep	3005A	DL		50 mL	50 mL	437187	04/15/19 16:45	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50			437398	04/17/19 09:20	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Prep	7470A			40 mL	40 mL	436582	04/10/19 14:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1			436767	04/11/19 13:10	JAP	TAL PEN
Instrument ID: HYDRA AA2										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276061	04/17/19 15:52	TAM	TAL PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	423239	04/10/19 14:08	CLP	TAL SL
Total/NA	Analysis	9315		1			426594	05/03/19 13:25	CDR	TAL SL
Instrument ID: GFPCORANGE										
Total/NA	Prep	PrecSep_0			999.95 mL	1.0 g	423240	04/10/19 14:10	CLP	TAL SL
Total/NA	Analysis	9320		1			424434	04/19/19 15:18	BLH	TAL SL
Instrument ID: GFPCPURPLE										
Total/NA	Analysis	Ra226_Ra228		1			426793	05/06/19 13:01	SMP	TAL SL
Instrument ID: NOEQUIP										

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Analyst References:

Lab: TAL PEN

Batch Type: Prep

DRE = Daniel Etscheid

JAP = Jane Parker

Batch Type: Analysis

DRE = Daniel Etscheid

JAP = Jane Parker

Lab: TAL PIT

Batch Type: Analysis

AVS = Abbey Smith

CMR = Carl Reagle

JAS = Joshua Schmidt

MJH = Matthew Hartman

TAM = Tessa Mastalski

Lab: TAL SL

Batch Type: Prep

CLP = Cassandra Park

MMO = Molly Olson

Batch Type: Analysis

BLH = Brandi Hayes

CDR = Conrad Reuscher

KLS = Kody Saulters

SMP = Siobhan Perry

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-4

Lab Sample ID: 180-88347-1

Date Collected: 03/28/19 12:56

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.71	mg/L			04/01/19 18:34	1
Fluoride	0.052	J	0.20	0.026	mg/L			04/01/19 18:34	1
Sulfate	1.2		1.0	0.38	mg/L			04/01/19 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 22:33	5
Barium	0.061		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 22:33	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 22:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:33	5
Calcium	17		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 22:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:33	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 22:33	5
Chromium	0.0046		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 22:33	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 22:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 22:33	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 22:33	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 22:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 22:33	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 22:33	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		10	10	mg/L			04/02/19 12:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0118	U	0.0458	0.0458	1.00	0.0901	pCi/L	04/14/19 16:53	05/09/19 12:41	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	104		40 - 110					04/14/19 16:53	05/09/19 12:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0856	U	0.263	0.263	1.00	0.453	pCi/L	04/14/19 16:53	05/01/19 15:53	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	104		40 - 110					04/14/19 16:53	05/01/19 15:53	1
<i>Y Carrier</i>	80.7		40 - 110					04/14/19 16:53	05/01/19 15:53	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-4

Lab Sample ID: 180-88347-1

Date Collected: 03/28/19 12:56

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.0974	U	0.267	0.267	5.00	0.453	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWA-5

Lab Sample ID: 180-88347-2

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.71	mg/L			04/02/19 11:26	1
Fluoride	<0.026		0.20	0.026	mg/L			04/02/19 11:26	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 11:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 22:38	5
Barium	0.0097		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 22:38	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 22:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:38	5
Calcium	1.4		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 22:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 22:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 22:38	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 22:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 22:38	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 22:38	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 22:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 22:38	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 22:38	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		10	10	mg/L			04/02/19 12:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	-0.0105	U	0.0469	0.0469	1.00	0.103	pCi/L	04/14/19 16:53	05/09/19 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/14/19 16:53	05/09/19 12:41	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-5

Lab Sample ID: 180-88347-2

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 10:00

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.126	U	0.233	0.233	1.00	0.396	pCi/L	04/14/19 16:53	05/01/19 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/14/19 16:53	05/01/19 15:53	1
Y Carrier	82.6		40 - 110					04/14/19 16:53	05/01/19 15:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.115	U	0.238	0.238	5.00	0.396	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWA-25

Lab Sample ID: 180-88347-3

Date Collected: 03/28/19 14:38

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.71	mg/L			04/02/19 11:42	1
Fluoride	0.037	J	0.20	0.026	mg/L			04/02/19 11:42	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 11:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00048	J	0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 22:42	5
Barium	0.022		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 22:42	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 22:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:42	5
Calcium	8.7		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 22:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:42	5
Cobalt	0.0042		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 22:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 22:42	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 22:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 22:42	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 22:42	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 22:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 22:42	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 22:42	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	79		10	10	mg/L			04/02/19 12:58	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-25

Lab Sample ID: 180-88347-3

Date Collected: 03/28/19 14:38

Matrix: Water

Date Received: 03/30/19 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0254	U	0.0622	0.0622	1.00	0.114	pCi/L	04/14/19 16:53	05/09/19 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/14/19 16:53	05/09/19 12:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.000	U	0.204	0.204	1.00	0.369	pCi/L	04/14/19 16:53	05/01/19 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/14/19 16:53	05/01/19 15:53	1
Y Carrier	83.0		40 - 110					04/14/19 16:53	05/01/19 15:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0254	U	0.213	0.213	5.00	0.369	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWA-3

Lab Sample ID: 180-88347-4

Date Collected: 03/28/19 14:40

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.71	mg/L			04/02/19 10:22	1
Fluoride	0.026	J	0.20	0.026	mg/L			04/02/19 10:22	1
Sulfate	1.9		1.0	0.38	mg/L			04/02/19 10:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 22:45	5
Barium	0.036		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 22:45	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 22:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:45	5
Calcium	4.8		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 22:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 22:45	5
Chromium	0.013		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 22:45	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 22:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 22:45	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 22:45	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 22:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 22:45	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 22:45	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-3

Lab Sample ID: 180-88347-4

Date Collected: 03/28/19 14:40

Matrix: Water

Date Received: 03/30/19 10:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	43		10	10	mg/L			04/02/19 12:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0549	U	0.0601	0.0603	1.00	0.0955	pCi/L	04/14/19 16:53	05/09/19 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/14/19 16:53	05/09/19 12:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.255	U	0.259	0.260	1.00	0.421	pCi/L	04/14/19 16:53	05/01/19 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/14/19 16:53	05/01/19 15:53	1
Y Carrier	84.9		40 - 110					04/14/19 16:53	05/01/19 15:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.310	U	0.266	0.267	5.00	0.421	pCi/L		05/10/19 09:12	1

Client Sample ID: FD-1 (AP)

Lab Sample ID: 180-88347-5

Date Collected: 03/28/19 00:00

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0		1.0	0.71	mg/L			04/02/19 10:38	1
Fluoride	0.056	J	0.20	0.026	mg/L			04/02/19 10:38	1
Sulfate	1.3		1.0	0.38	mg/L			04/02/19 10:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 22:50	5
Barium	0.060		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 22:50	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 22:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:50	5
Calcium	17		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 22:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 22:50	5
Chromium	0.0045		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 22:50	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FD-1 (AP)

Lab Sample ID: 180-88347-5

Date Collected: 03/28/19 00:00

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 22:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 22:50	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 22:50	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 22:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 22:50	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 22:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		10	10	mg/L			04/02/19 12:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0413	U	0.0497	0.0499	1.00	0.0807	pCi/L	04/14/19 16:53	05/09/19 12:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/14/19 16:53	05/09/19 12:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0962	U	0.233	0.234	1.00	0.403	pCi/L	04/14/19 16:53	05/01/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/14/19 16:53	05/01/19 15:54	1
Y Carrier	77.8		40 - 110					04/14/19 16:53	05/01/19 15:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.137	U	0.238	0.239	5.00	0.403	pCi/L		05/10/19 09:12	1

Client Sample ID: FB-1 (AP)

Lab Sample ID: 180-88347-6

Date Collected: 03/28/19 13:40

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/02/19 12:29	1
Fluoride	<0.026		0.20	0.026	mg/L			04/02/19 12:29	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 12:29	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FB-1 (AP)

Lab Sample ID: 180-88347-6

Date Collected: 03/28/19 13:40

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 22:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 22:53	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 22:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:53	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 22:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 22:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 22:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 22:53	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 22:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 22:53	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 22:53	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 22:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 22:53	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 22:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/03/19 11:13	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0177	U	0.0446	0.0447	1.00	0.0844	pCi/L	04/14/19 16:53	05/09/19 12:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/14/19 16:53	05/09/19 12:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0830	U	0.211	0.212	1.00	0.365	pCi/L	04/14/19 16:53	05/01/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/14/19 16:53	05/01/19 15:54	1
Y Carrier	86.4		40 - 110					04/14/19 16:53	05/01/19 15:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.101	U	0.216	0.217	5.00	0.365	pCi/L		05/10/19 09:12	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: EB-1 (AP)

Lab Sample ID: 180-88347-7

Date Collected: 03/28/19 15:00

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/02/19 12:45	1
Fluoride	<0.026		0.20	0.026	mg/L			04/02/19 12:45	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 12:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 23:17	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 23:17	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 23:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:17	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 23:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 23:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 23:17	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 23:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 23:17	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 23:17	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 23:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 23:17	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 23:17	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/03/19 11:13	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0562	U	0.0495	0.0498	1.00	0.0696	pCi/L	04/14/19 16:53	05/09/19 12:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/14/19 16:53	05/09/19 12:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U	0.267	0.267	1.00	0.457	pCi/L	04/14/19 16:53	05/01/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/14/19 16:53	05/01/19 15:54	1
Y Carrier	83.7		40 - 110					04/14/19 16:53	05/01/19 15:54	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: EB-1 (AP)

Lab Sample ID: 180-88347-7

Date Collected: 03/28/19 15:00

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.164	U	0.272	0.272	5.00	0.457	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWA-1

Lab Sample ID: 180-88347-8

Date Collected: 03/29/19 09:16

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.71	mg/L			04/02/19 08:00	1
Fluoride	<0.026		0.20	0.026	mg/L			04/02/19 08:00	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 08:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 23:21	5
Barium	0.044		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 23:21	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 23:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:21	5
Calcium	2.0		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 23:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:21	5
Cobalt	0.00072	J	0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 23:21	5
Chromium	0.0017	J	0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 23:21	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 23:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 23:21	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 23:21	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 23:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 23:21	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 23:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	J	0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/04/19 12:11	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0571	U	0.0525	0.0528	1.00	0.0773	pCi/L	04/14/19 16:53	05/09/19 12:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/14/19 16:53	05/09/19 12:43	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-1
Date Collected: 03/29/19 09:16
Date Received: 03/30/19 10:00

Lab Sample ID: 180-88347-8
Matrix: Water

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.254	U	0.246	0.247	1.00	0.398	pCi/L	04/14/19 16:53	05/01/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/14/19 16:53	05/01/19 15:54	1
Y Carrier	84.5		40 - 110					04/14/19 16:53	05/01/19 15:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.311	U	0.252	0.253	5.00	0.398	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWA-2
Date Collected: 03/29/19 10:07
Date Received: 03/30/19 10:00

Lab Sample ID: 180-88347-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.71	mg/L			04/02/19 08:16	1
Fluoride	0.053	J	0.20	0.026	mg/L			04/02/19 08:16	1
Sulfate	0.65	J	1.0	0.38	mg/L			04/02/19 08:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 23:26	5
Barium	0.039		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 23:26	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 23:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:26	5
Calcium	11		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 23:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:26	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 23:26	5
Chromium	0.014		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 23:26	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 23:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 23:26	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 23:26	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 23:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 23:26	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 23:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		10	10	mg/L			04/04/19 12:11	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-2

Lab Sample ID: 180-88347-9

Date Collected: 03/29/19 10:07

Matrix: Water

Date Received: 03/30/19 10:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0269	U	0.0475	0.0476	1.00	0.0853	pCi/L	04/14/19 16:53	05/09/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/14/19 16:53	05/09/19 12:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0501	U	0.238	0.238	1.00	0.432	pCi/L	04/14/19 16:53	05/01/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/14/19 16:53	05/01/19 15:54	1
Y Carrier	80.4		40 - 110					04/14/19 16:53	05/01/19 15:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0232	U	0.243	0.243	5.00	0.432	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWA-24

Lab Sample ID: 180-88347-10

Date Collected: 03/29/19 09:25

Matrix: Water

Date Received: 03/30/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.71	mg/L			04/02/19 08:31	1
Fluoride	0.056	J	0.20	0.026	mg/L			04/02/19 08:31	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 08:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 23:29	5
Barium	0.021		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 23:29	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 23:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:29	5
Calcium	12		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 23:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 23:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 23:29	5
Chromium	0.0043		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 23:29	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 23:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 23:29	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 23:29	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 23:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 23:29	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 23:29	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWA-24

Lab Sample ID: 180-88347-10

Date Collected: 03/29/19 09:25

Matrix: Water

Date Received: 03/30/19 10:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:19	04/05/19 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		10	10	mg/L			04/04/19 13:40	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0537	U	0.0532	0.0534	1.00	0.0814	pCi/L	04/14/19 16:53	05/09/19 12:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/14/19 16:53	05/09/19 12:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0455	U	0.223	0.223	1.00	0.394	pCi/L	04/14/19 16:53	05/01/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/14/19 16:53	05/01/19 15:54	1
Y Carrier	80.7		40 - 110					04/14/19 16:53	05/01/19 15:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0992	U	0.229	0.229	5.00	0.394	pCi/L		05/10/19 09:12	1

Client Sample ID: SGWC-7

Lab Sample ID: 180-88428-1

Date Collected: 04/01/19 11:56

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.71	mg/L			04/13/19 09:33	1
Fluoride	0.12	J	0.20	0.026	mg/L			04/13/19 09:33	1
Sulfate	16		1.0	0.38	mg/L			04/13/19 09:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 09:35	5
Barium	0.24		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 09:35	5
Boron	0.025	J	0.050	0.021	mg/L		04/11/19 17:30	04/12/19 09:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 09:35	5
Calcium	18		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 09:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 09:35	5
Cobalt	0.0046		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 09:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 09:35	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-7
Date Collected: 04/01/19 11:56
Date Received: 04/03/19 09:40

Lab Sample ID: 180-88428-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 09:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 09:35	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 09:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 09:35	5
Lithium	0.0058		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 09:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		10	10	mg/L			04/05/19 12:09	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00475	U	0.0375	0.0375	1.00	0.0791	pCi/L	04/10/19 14:10	05/02/19 16:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/10/19 14:10	05/02/19 16:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.670		0.297	0.303	1.00	0.434	pCi/L	04/10/19 14:13	04/18/19 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/10/19 14:13	04/18/19 15:31	1
Y Carrier	88.2		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.675		0.299	0.305	5.00	0.434	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-8
Date Collected: 04/01/19 10:47
Date Received: 04/03/19 09:40

Lab Sample ID: 180-88428-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.71	mg/L			04/13/19 09:48	1
Fluoride	0.21		0.20	0.026	mg/L			04/13/19 09:48	1
Sulfate	67		1.0	0.38	mg/L			04/13/19 09:48	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-8

Lab Sample ID: 180-88428-2

Date Collected: 04/01/19 10:47

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0010	J	0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 09:39	5
Barium	0.19		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 09:39	5
Boron	0.076		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 09:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 09:39	5
Calcium	45		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 09:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 09:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 09:39	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 09:39	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 09:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 09:39	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 09:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 09:39	5
Lithium	0.0021	J	0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 09:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.526		0.121	0.130	1.00	0.0748	pCi/L	04/10/19 14:10	05/02/19 16:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/10/19 14:10	05/02/19 16:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.38		0.301	0.327	1.00	0.347	pCi/L	04/10/19 14:13	04/18/19 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/10/19 14:13	04/18/19 15:31	1
Y Carrier	90.5		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.91		0.324	0.352	5.00	0.347	pCi/L		05/06/19 13:01	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-9

Lab Sample ID: 180-88428-3

Date Collected: 04/01/19 11:20

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.71	mg/L			04/13/19 10:04	1
Fluoride	0.041	J	0.20	0.026	mg/L			04/13/19 10:04	1
Sulfate	310		5.0	1.9	mg/L			04/13/19 15:37	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:18	5
Barium	0.071		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:18	5
Calcium	50		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:18	5
Cobalt	0.010		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:18	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:18	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:18	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:18	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:18	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.7		0.25	0.11	mg/L		04/11/19 17:30	04/12/19 12:01	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	580		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00803	U	0.0523	0.0523	1.00	0.103	pCi/L	04/10/19 14:10	05/02/19 16:55	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	95.9		40 - 110					04/10/19 14:10	05/02/19 16:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0193	U	0.178	0.178	1.00	0.325	pCi/L	04/10/19 14:13	04/18/19 15:31	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	95.9		40 - 110					04/10/19 14:13	04/18/19 15:31	1
<i>Y Carrier</i>	93.1		40 - 110					04/10/19 14:13	04/18/19 15:31	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-9

Lab Sample ID: 180-88428-3

Date Collected: 04/01/19 11:20

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0113	U	0.186	0.186	5.00	0.325	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-10

Lab Sample ID: 180-88428-4

Date Collected: 04/01/19 17:50

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.71	mg/L			04/13/19 10:20	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 10:20	1
Sulfate	21		1.0	0.38	mg/L			04/13/19 10:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00059	J	0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:22	5
Barium	0.039		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:22	5
Boron	0.16		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 10:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:22	5
Calcium	4.2		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:22	5
Cobalt	0.025		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:22	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:22	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:22	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:22	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00379	U	0.0374	0.0374	1.00	0.0783	pCi/L	04/10/19 14:10	05/02/19 18:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/10/19 14:10	05/02/19 18:31	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-10

Lab Sample ID: 180-88428-4

Date Collected: 04/01/19 17:50

Matrix: Water

Date Received: 04/03/19 09:40

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.448		0.225	0.229	1.00	0.333	pCi/L	04/10/19 14:13	04/18/19 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/10/19 14:13	04/18/19 15:31	1
Y Carrier	93.8		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.452		0.228	0.232	5.00	0.333	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-11

Lab Sample ID: 180-88428-5

Date Collected: 04/01/19 11:25

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		1.0	0.71	mg/L			04/13/19 10:36	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 10:36	1
Sulfate	0.81	J	1.0	0.38	mg/L			04/13/19 10:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011	J	0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:26	5
Barium	0.041		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:26	5
Boron	0.46		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 10:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:26	5
Calcium	1.7		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:26	5
Cobalt	0.021		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:26	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:26	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:26	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:26	5
Lithium	0.0017	J	0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	33		10	10	mg/L			04/08/19 11:54	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-11

Lab Sample ID: 180-88428-5

Date Collected: 04/01/19 11:25

Matrix: Water

Date Received: 04/03/19 09:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0561	U	0.0492	0.0495	1.00	0.0719	pCi/L	04/10/19 14:10	05/02/19 18:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/10/19 14:10	05/02/19 18:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.183	0.183	1.00	0.308	pCi/L	04/10/19 14:13	04/18/19 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/10/19 14:13	04/18/19 15:31	1
Y Carrier	92.3		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.173	U	0.189	0.190	5.00	0.308	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-12

Lab Sample ID: 180-88428-6

Date Collected: 04/01/19 12:40

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.0		1.0	0.71	mg/L			04/13/19 10:52	1
Fluoride	0.048	J	0.20	0.026	mg/L			04/13/19 10:52	1
Sulfate	48		1.0	0.38	mg/L			04/13/19 10:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0012	J	0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:30	5
Barium	0.051		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:30	5
Boron	<0.021		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 10:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:30	5
Calcium	20		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:30	5
Cobalt	0.0029		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:30	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:30	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:30	5
Lithium	0.0011	J	0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:30	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-12

Lab Sample ID: 180-88428-6

Date Collected: 04/01/19 12:40

Matrix: Water

Date Received: 04/03/19 09:40

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0627	U	0.0490	0.0494	1.00	0.0673	pCi/L	04/10/19 14:10	05/02/19 18:32	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	104		40 - 110					04/10/19 14:10	05/02/19 18:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.310	U	0.208	0.210	1.00	0.321	pCi/L	04/10/19 14:13	04/18/19 15:31	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	104		40 - 110					04/10/19 14:13	04/18/19 15:31	1
<i>Y Carrier</i>	91.2		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.372		0.214	0.216	5.00	0.321	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-13

Lab Sample ID: 180-88428-7

Date Collected: 04/01/19 13:40

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.7		1.0	0.71	mg/L			04/13/19 11:08	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 11:08	1
Sulfate	82		1.0	0.38	mg/L			04/13/19 11:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0014		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:34	5
Barium	0.038		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:34	5
Boron	0.57		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 10:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:34	5
Calcium	17		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:34	5
Cobalt	0.0030		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:34	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-13

Lab Sample ID: 180-88428-7

Date Collected: 04/01/19 13:40

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:34	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:34	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00367	U	0.0424	0.0424	1.00	0.0864	pCi/L	04/10/19 14:10	05/02/19 18:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/10/19 14:10	05/02/19 18:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.356		0.222	0.224	1.00	0.339	pCi/L	04/10/19 14:13	04/18/19 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/10/19 14:13	04/18/19 15:31	1
Y Carrier	89.3		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.360		0.226	0.228	5.00	0.339	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-14

Lab Sample ID: 180-88428-8

Date Collected: 04/01/19 14:55

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.71	mg/L			04/13/19 11:23	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 11:23	1
Sulfate	180		1.0	0.38	mg/L			04/13/19 11:23	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-14

Lab Sample ID: 180-88428-8

Date Collected: 04/01/19 14:55

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0012	J	0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:38	5
Barium	0.054		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:38	5
Boron	1.7		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 10:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:38	5
Calcium	39		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:38	5
Cobalt	0.014		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:38	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:38	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:38	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:38	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	330		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0247	U	0.0554	0.0554	1.00	0.101	pCi/L	04/10/19 14:10	05/03/19 13:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/10/19 14:10	05/03/19 13:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.162	U	0.203	0.204	1.00	0.388	pCi/L	04/10/19 14:13	04/18/19 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/10/19 14:13	04/18/19 15:31	1
Y Carrier	94.6		40 - 110					04/10/19 14:13	04/18/19 15:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.138	U	0.210	0.211	5.00	0.388	pCi/L		05/06/19 13:01	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-15

Lab Sample ID: 180-88428-9

Date Collected: 04/01/19 16:25

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.2		1.0	0.71	mg/L			04/13/19 12:11	1
Fluoride	0.072	J	0.20	0.026	mg/L			04/13/19 12:11	1
Sulfate	190		1.0	0.38	mg/L			04/13/19 12:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0016		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 10:42	5
Barium	0.034		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 10:42	5
Boron	1.6		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 10:42	5
Beryllium	0.00034	J	0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:42	5
Calcium	16		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 10:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 10:42	5
Cobalt	0.26		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 10:42	5
Chromium	0.032		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 10:42	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 10:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 10:42	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 10:42	5
Thallium	0.000095	J	0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 10:42	5
Lithium	0.0025	J	0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 10:42	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	330		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0114	U	0.0524	0.0524	1.00	0.101	pCi/L	04/10/19 14:10	05/03/19 11:22	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	92.0		40 - 110					04/10/19 14:10	05/03/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0385	U	0.194	0.194	1.00	0.343	pCi/L	04/10/19 14:13	04/18/19 15:31	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	92.0		40 - 110					04/10/19 14:13	04/18/19 15:31	1
<i>Y Carrier</i>	92.3		40 - 110					04/10/19 14:13	04/18/19 15:31	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-15

Lab Sample ID: 180-88428-9

Date Collected: 04/01/19 16:25

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0499	U	0.201	0.201	5.00	0.343	pCi/L		05/06/19 13:01	1

Client Sample ID: EB-2 (AP)

Lab Sample ID: 180-88428-10

Date Collected: 04/01/19 17:30

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/13/19 12:27	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 12:27	1
Sulfate	<0.38		1.0	0.38	mg/L			04/13/19 12:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 11:06	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 11:06	5
Boron	<0.021		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 11:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 11:06	5
Calcium	<0.13		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 11:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 11:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 11:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 11:06	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 11:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 11:06	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 11:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 11:06	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 11:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.123		0.0685	0.0694	1.00	0.0820	pCi/L	04/10/19 14:10	05/03/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/10/19 14:10	05/03/19 11:22	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: EB-2 (AP)

Lab Sample ID: 180-88428-10

Date Collected: 04/01/19 17:30

Matrix: Water

Date Received: 04/03/19 09:40

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.192	U	0.191	0.191	1.00	0.309	pCi/L	04/10/19 14:13	04/18/19 15:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/10/19 14:13	04/18/19 15:32	1
Y Carrier	94.2		40 - 110					04/10/19 14:13	04/18/19 15:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.315		0.203	0.203	5.00	0.309	pCi/L		05/06/19 13:01	1

Client Sample ID: FB-2 (AP)

Lab Sample ID: 180-88428-11

Date Collected: 04/01/19 10:50

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/13/19 12:42	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 12:42	1
Sulfate	<0.38		1.0	0.38	mg/L			04/13/19 12:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 11:09	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 11:09	5
Boron	<0.021		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 11:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 11:09	5
Calcium	<0.13		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 11:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 11:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 11:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 11:09	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 11:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 11:09	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 11:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 11:09	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 11:09	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/08/19 11:54	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FB-2 (AP)

Lab Sample ID: 180-88428-11

Date Collected: 04/01/19 10:50

Matrix: Water

Date Received: 04/03/19 09:40

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0158	U	0.0332	0.0332	1.00	0.0828	pCi/L	04/10/19 14:10	05/03/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/10/19 14:10	05/03/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0419	U	0.197	0.197	1.00	0.363	pCi/L	04/10/19 14:13	04/18/19 15:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/10/19 14:13	04/18/19 15:32	1
Y Carrier	84.9		40 - 110					04/10/19 14:13	04/18/19 15:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0578	U	0.200	0.200	5.00	0.363	pCi/L		05/06/19 13:01	1

Client Sample ID: FD-2 (AP)

Lab Sample ID: 180-88428-12

Date Collected: 04/01/19 00:00

Matrix: Water

Date Received: 04/03/19 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.71	mg/L			04/13/19 12:58	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 12:58	1
Sulfate	0.92	J	1.0	0.38	mg/L			04/13/19 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 11:14	5
Barium	0.039		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 11:14	5
Boron	0.44		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 11:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 11:14	5
Calcium	1.6		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 11:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 11:14	5
Cobalt	0.021		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 11:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 11:14	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 11:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 11:14	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 11:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 11:14	5
Lithium	0.0026	J	0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 11:14	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FD-2 (AP)

Lab Sample ID: 180-88428-12

Date Collected: 04/01/19 00:00

Matrix: Water

Date Received: 04/03/19 09:40

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/08/19 11:54	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0343	U	0.0472	0.0473	1.00	0.0797	pCi/L	04/10/19 14:10	05/02/19 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/10/19 14:10	05/02/19 18:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.330	U	0.231	0.233	1.00	0.361	pCi/L	04/10/19 14:13	04/18/19 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/10/19 14:13	04/18/19 15:33	1
Y Carrier	89.0		40 - 110					04/10/19 14:13	04/18/19 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.364		0.236	0.238	5.00	0.361	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-6

Lab Sample ID: 180-88533-1

Date Collected: 04/02/19 09:12

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.71	mg/L			04/14/19 17:55	1
Fluoride	0.10	J	0.20	0.026	mg/L			04/14/19 17:55	1
Sulfate	1.3		1.0	0.38	mg/L			04/14/19 17:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 05:02	5
Barium	0.069		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 05:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 05:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 05:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 05:02	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 05:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 05:02	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-6

Lab Sample ID: 180-88533-1

Date Collected: 04/02/19 09:12

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 05:02	5
Calcium	6.7		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 05:02	5
Boron	<0.021		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 05:02	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 08:53	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 08:53	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	91	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0331	0.0331	1.00	0.0724	pCi/L	04/10/19 14:10	05/02/19 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/10/19 14:10	05/02/19 18:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.300	U	0.242	0.244	1.00	0.385	pCi/L	04/10/19 14:13	04/18/19 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					04/10/19 14:13	04/18/19 15:33	1
Y Carrier	82.6		40 - 110					04/10/19 14:13	04/18/19 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.300	U	0.244	0.246	5.00	0.385	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-16

Lab Sample ID: 180-88533-2

Date Collected: 04/02/19 10:34

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.2		1.0	0.71	mg/L			04/14/19 18:43	1
Fluoride	<0.026		0.20	0.026	mg/L			04/14/19 18:43	1
Sulfate	31		1.0	0.38	mg/L			04/14/19 18:43	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-16

Lab Sample ID: 180-88533-2

Date Collected: 04/02/19 10:34

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 05:22	5
Barium	0.023		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 05:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:22	5
Cobalt	0.0041		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 05:22	5
Chromium	0.010		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 05:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 05:22	5
Selenium	0.0021		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 05:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 05:22	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 05:22	5
Calcium	0.92		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 05:22	5
Boron	0.53		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 05:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 08:57	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 08:57	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	73	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0416	U	0.0300	0.0302	1.00	0.0898	pCi/L	04/10/19 14:10	05/03/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/10/19 14:10	05/03/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.209	U	0.189	0.190	1.00	0.304	pCi/L	04/10/19 14:13	04/18/19 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/10/19 14:13	04/18/19 15:33	1
Y Carrier	93.5		40 - 110					04/10/19 14:13	04/18/19 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.167	U	0.191	0.192	5.00	0.304	pCi/L		05/06/19 13:01	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-17

Lab Sample ID: 180-88533-3

Date Collected: 04/02/19 11:34

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.2		1.0	0.71	mg/L			04/14/19 19:30	1
Fluoride	0.045	J	0.20	0.026	mg/L			04/14/19 19:30	1
Sulfate	180		1.0	0.38	mg/L			04/14/19 19:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 05:26	5
Barium	0.020		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 05:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:26	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 05:26	5
Chromium	0.0040		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 05:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 05:26	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 05:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 05:26	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 05:26	5
Calcium	46		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 05:26	5
Boron	0.32		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 05:26	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 09:01	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 09:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	400	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0121	U	0.0359	0.0359	1.00	0.0849	pCi/L	04/10/19 14:10	05/03/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/10/19 14:10	05/03/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0355	U	0.181	0.181	1.00	0.334	pCi/L	04/10/19 14:13	04/18/19 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/10/19 14:13	04/18/19 15:33	1
Y Carrier	90.5		40 - 110					04/10/19 14:13	04/18/19 15:33	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-17

Lab Sample ID: 180-88533-3

Date Collected: 04/02/19 11:34

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	-0.0476	U	0.185	0.185	5.00	0.334	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-18

Lab Sample ID: 180-88533-4

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		1.0	0.71	mg/L			04/14/19 21:37	1
Fluoride	0.050	J	0.20	0.026	mg/L			04/14/19 21:37	1
Sulfate	1100		10	3.8	mg/L			04/14/19 21:52	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 05:30	5
Barium	0.028		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 05:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:30	5
Cobalt	0.18		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 05:30	5
Chromium	0.0092		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 05:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 05:30	5
Selenium	0.0075		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 05:30	5
Thallium	0.00016	J	0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 05:30	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 05:30	5
Calcium	89		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 05:30	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.3		0.50	0.21	mg/L		04/15/19 16:45	04/17/19 09:08	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 09:05	5
Lithium	0.0041	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 09:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1700	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0557	U	0.0506	0.0509	1.00	0.0747	pCi/L	04/10/19 14:10	05/03/19 11:20	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-18

Lab Sample ID: 180-88533-4

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110	04/10/19 14:10	05/03/19 11:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.280	U	0.217	0.218	1.00	0.340	pCi/L	04/10/19 14:13	04/18/19 15:33	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110	04/10/19 14:13	04/18/19 15:33	1
Y Carrier	85.6		40 - 110	04/10/19 14:13	04/18/19 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.336	U	0.223	0.224	5.00	0.340	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC19

Lab Sample ID: 180-88533-5

Date Collected: 04/02/19 10:20

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.3		1.0	0.71	mg/L			04/14/19 19:46	1
Fluoride	<0.026		0.20	0.026	mg/L			04/14/19 19:46	1
Sulfate	240		5.0	1.9	mg/L			04/15/19 10:04	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 05:54	5
Barium	0.030		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 05:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 05:54	5
Chromium	0.014		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 05:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 05:54	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 05:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 05:54	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 05:54	5
Calcium	38		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 05:54	5
Lithium	0.0021	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 05:54	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.25	0.11	mg/L		04/15/19 16:45	04/17/19 09:12	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 12:52	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC19

Lab Sample ID: 180-88533-5

Date Collected: 04/02/19 10:20

Matrix: Water

Date Received: 04/04/19 08:35

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	420	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00811	U	0.0296	0.0296	1.00	0.0727	pCi/L	04/10/19 14:10	05/03/19 11:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					04/10/19 14:10	05/03/19 11:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.118	U	0.209	0.209	1.00	0.354	pCi/L	04/10/19 14:13	04/18/19 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					04/10/19 14:13	04/18/19 15:33	1
Y Carrier	86.7		40 - 110					04/10/19 14:13	04/18/19 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.110	U	0.211	0.211	5.00	0.354	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-20

Lab Sample ID: 180-88533-6

Date Collected: 04/02/19 11:10

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.71	mg/L			04/14/19 20:02	1
Fluoride	0.15	J	0.20	0.026	mg/L			04/14/19 20:02	1
Sulfate	220		5.0	1.9	mg/L			04/15/19 10:20	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 05:58	5
Barium	0.023		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 05:58	5
Beryllium	0.00043	J	0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 05:58	5
Cobalt	0.13		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 05:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 05:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 05:58	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 05:58	5
Thallium	0.00017	J	0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 05:58	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 05:58	5
Calcium	14		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 05:58	5
Lithium	0.0046	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 05:58	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-20

Lab Sample ID: 180-88533-6

Date Collected: 04/02/19 11:10

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.25	0.11	mg/L		04/15/19 16:45	04/17/19 09:16	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0607	U	0.0521	0.0524	1.00	0.0763	pCi/L	04/10/19 14:10	05/03/19 11:20	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	101		40 - 110					04/10/19 14:10	05/03/19 11:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.211	U	0.183	0.184	1.00	0.291	pCi/L	04/10/19 14:13	04/18/19 15:33	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	101		40 - 110					04/10/19 14:13	04/18/19 15:33	1
Y Carrier	94.2		40 - 110					04/10/19 14:13	04/18/19 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.271	U	0.190	0.191	5.00	0.291	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC-21

Lab Sample ID: 180-88533-7

Date Collected: 04/02/19 09:05

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		1.0	0.71	mg/L			04/14/19 20:18	1
Fluoride	0.066	J	0.20	0.026	mg/L			04/14/19 20:18	1
Sulfate	92		1.0	0.38	mg/L			04/14/19 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 06:02	5
Barium	0.087		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 06:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:02	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC-21

Lab Sample ID: 180-88533-7

Date Collected: 04/02/19 09:05

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 06:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 06:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 06:02	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 06:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 06:02	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 06:02	5
Calcium	27		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 06:02	5
Boron	1.2		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 06:02	5
Lithium	0.0027	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 06:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0386	U	0.0453	0.0454	1.00	0.0730	pCi/L	04/10/19 14:10	05/03/19 11:20	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	99.4		40 - 110					04/10/19 14:10	05/03/19 11:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.180	U	0.210	0.211	1.00	0.346	pCi/L	04/10/19 14:13	04/18/19 15:34	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	99.4		40 - 110					04/10/19 14:13	04/18/19 15:34	1
<i>Y Carrier</i>	91.6		40 - 110					04/10/19 14:13	04/18/19 15:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.218	U	0.215	0.216	5.00	0.346	pCi/L		05/06/19 13:01	1

Client Sample ID: SGWC22

Lab Sample ID: 180-88533-8

Date Collected: 04/02/19 09:50

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.71	mg/L			04/14/19 20:33	1
Fluoride	<0.026		0.20	0.026	mg/L			04/14/19 20:33	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC22

Lab Sample ID: 180-88533-8

Date Collected: 04/02/19 09:50

Matrix: Water

Date Received: 04/04/19 08:35

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	100		1.0	0.38	mg/L			04/14/19 20:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 06:06	5
Barium	0.076		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 06:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:06	5
Cobalt	0.0018	J	0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 06:06	5
Chromium	0.0012	J	0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 06:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 06:06	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 06:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 06:06	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 06:06	5
Calcium	26		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 06:06	5
Boron	0.44		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 06:06	5
Lithium	0.0026	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 06:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0685	U	0.0538	0.0541	1.00	0.0747	pCi/L	04/10/19 14:08	05/02/19 19:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/10/19 14:08	05/02/19 19:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.244	U	0.263	0.264	1.00	0.430	pCi/L	04/10/19 14:10	04/19/19 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/10/19 14:10	04/19/19 15:17	1
Y Carrier	85.6		40 - 110					04/10/19 14:10	04/19/19 15:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.313	U	0.268	0.269	5.00	0.430	pCi/L		05/06/19 13:01	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC23

Lab Sample ID: 180-88533-9

Date Collected: 04/02/19 11:05

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.9		1.0	0.71	mg/L			04/14/19 20:49	1
Fluoride	0.036	J	0.20	0.026	mg/L			04/14/19 20:49	1
Sulfate	95		1.0	0.38	mg/L			04/14/19 20:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 06:10	5
Barium	0.068		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 06:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 06:10	5
Chromium	0.0011	J	0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 06:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 06:10	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 06:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 06:10	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 06:10	5
Calcium	23		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 06:10	5
Boron	0.52		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 06:10	5
Lithium	0.0041	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 06:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	250	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.217		0.0815	0.0838	1.00	0.0753	pCi/L	04/10/19 14:08	05/03/19 13:25	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	99.7		40 - 110					04/10/19 14:08	05/03/19 13:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.299	U	0.244	0.245	1.00	0.387	pCi/L	04/10/19 14:10	04/19/19 15:17	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Ba Carrier</i>	99.7		40 - 110					04/10/19 14:10	04/19/19 15:17	1
<i>Y Carrier</i>	85.2		40 - 110					04/10/19 14:10	04/19/19 15:17	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: SGWC23

Lab Sample ID: 180-88533-9

Date Collected: 04/02/19 11:05

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.516		0.257	0.259	5.00	0.387	pCi/L		05/06/19 13:01	1

Client Sample ID: FB-3 (AP)

Lab Sample ID: 180-88533-10

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/14/19 21:05	1
Fluoride	<0.026		0.20	0.026	mg/L			04/14/19 21:05	1
Sulfate	0.72	J	1.0	0.38	mg/L			04/14/19 21:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 06:14	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 06:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 06:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 06:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 06:14	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 06:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 06:14	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 06:14	5
Calcium	<0.13		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 06:14	5
Boron	<0.021		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 06:14	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 06:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00247	U	0.0316	0.0316	1.00	0.0689	pCi/L	04/10/19 14:08	05/03/19 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/10/19 14:08	05/03/19 13:25	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FB-3 (AP)

Lab Sample ID: 180-88533-10

Date Collected: 04/02/19 09:00

Matrix: Water

Date Received: 04/04/19 08:35

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U	0.218	0.218	1.00	0.374	pCi/L	04/10/19 14:10	04/19/19 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/10/19 14:10	04/19/19 15:17	1
Y Carrier	80.4		40 - 110					04/10/19 14:10	04/19/19 15:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.111	U	0.220	0.220	5.00	0.374	pCi/L		05/06/19 13:01	1

Client Sample ID: EB-3 (AP)

Lab Sample ID: 180-88533-11

Date Collected: 04/02/19 12:00

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/14/19 21:21	1
Fluoride	<0.026		0.20	0.026	mg/L			04/14/19 21:21	1
Sulfate	0.62	J	1.0	0.38	mg/L			04/14/19 21:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 06:18	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 06:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 06:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 06:18	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 06:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 06:18	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 06:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 06:18	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 06:18	5
Calcium	<0.13		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 06:18	5
Boron	<0.021		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 06:18	5
Lithium	0.0012	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 06:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10	H	10	10	mg/L			04/17/19 15:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: EB-3 (AP)

Lab Sample ID: 180-88533-11

Date Collected: 04/02/19 12:00

Matrix: Water

Date Received: 04/04/19 08:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0201	U	0.0335	0.0335	1.00	0.0834	pCi/L	04/10/19 14:08	05/03/19 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/10/19 14:08	05/03/19 13:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.236	0.237	1.00	0.392	pCi/L	04/10/19 14:10	04/19/19 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/10/19 14:10	04/19/19 15:17	1
Y Carrier	82.2		40 - 110					04/10/19 14:10	04/19/19 15:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.171	U	0.238	0.239	5.00	0.392	pCi/L		05/06/19 13:01	1

Client Sample ID: FD-3 (AP)

Lab Sample ID: 180-88533-12

Date Collected: 04/02/19 00:00

Matrix: Water

Date Received: 04/04/19 08:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		1.0	0.71	mg/L			04/15/19 07:08	1
Fluoride	0.053	J	0.20	0.026	mg/L			04/15/19 07:08	1
Sulfate	1100		10	3.8	mg/L			04/15/19 07:24	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 07:05	5
Barium	0.029		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 07:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 07:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 07:05	5
Cobalt	0.18		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 07:05	5
Chromium	0.0094		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 07:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 07:05	5
Selenium	0.0080		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 07:05	5
Thallium	0.00017	J	0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 07:05	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 07:05	5
Calcium	87		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 07:05	5
Lithium	0.0046	J	0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 07:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.1		0.50	0.21	mg/L		04/15/19 16:45	04/17/19 09:20	50

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Client Sample ID: FD-3 (AP)

Lab Sample ID: 180-88533-12

Date Collected: 04/02/19 00:00

Matrix: Water

Date Received: 04/04/19 08:35

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00015	J	0.00020	0.000070	mg/L		04/10/19 14:23	04/11/19 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1700	H	10	10	mg/L			04/17/19 15:52	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0338	U	0.0473	0.0474	1.00	0.0802	pCi/L	04/10/19 14:08	05/03/19 13:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/10/19 14:08	05/03/19 13:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.229	U	0.228	0.229	1.00	0.370	pCi/L	04/10/19 14:10	04/19/19 15:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/10/19 14:10	04/19/19 15:18	1
Y Carrier	88.6		40 - 110					04/10/19 14:10	04/19/19 15:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.263	U	0.233	0.234	5.00	0.370	pCi/L		05/06/19 13:01	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: MB 180-274458/41
Matrix: Water
Analysis Batch: 274458

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/01/19 14:59	1
Fluoride	<0.026		0.20	0.026	mg/L			04/01/19 14:59	1
Sulfate	<0.38		1.0	0.38	mg/L			04/01/19 14:59	1

Lab Sample ID: LCS 180-274458/38
Matrix: Water
Analysis Batch: 274458

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.3		mg/L		101	90 - 110
Fluoride	1.25	1.25		mg/L		100	90 - 110
Sulfate	25.0	25.3		mg/L		101	90 - 110

Lab Sample ID: MB 180-274532/6
Matrix: Water
Analysis Batch: 274532

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/02/19 05:41	1
Fluoride	<0.026		0.20	0.026	mg/L			04/02/19 05:41	1
Sulfate	<0.38		1.0	0.38	mg/L			04/02/19 05:41	1

Lab Sample ID: LCS 180-274532/5
Matrix: Water
Analysis Batch: 274532

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.6		mg/L		102	90 - 110
Fluoride	1.25	1.24		mg/L		99	90 - 110
Sulfate	25.0	25.2		mg/L		101	90 - 110

Lab Sample ID: 180-88347-5 MS
Matrix: Water
Analysis Batch: 274532

Client Sample ID: FD-1 (AP)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.0		25.0	25.9		mg/L		99	80 - 120
Fluoride	0.056	J	1.25	1.28		mg/L		98	80 - 120
Sulfate	1.3		25.0	25.5		mg/L		97	80 - 120

Lab Sample ID: 180-88347-5 MSD
Matrix: Water
Analysis Batch: 274532

Client Sample ID: FD-1 (AP)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.0		25.0	27.2		mg/L		105	80 - 120	5	20
Fluoride	0.056	J	1.25	1.34		mg/L		102	80 - 120	5	20
Sulfate	1.3		25.0	26.9		mg/L		102	80 - 120	5	20

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-275670/5
Matrix: Water
Analysis Batch: 275670

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/13/19 07:25	1
Fluoride	<0.026		0.20	0.026	mg/L			04/13/19 07:25	1
Sulfate	<0.38		1.0	0.38	mg/L			04/13/19 07:25	1

Lab Sample ID: LCS 180-275670/6
Matrix: Water
Analysis Batch: 275670

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.4		mg/L		102	90 - 110
Fluoride	1.25	1.14		mg/L		92	90 - 110
Sulfate	25.0	24.9		mg/L		100	90 - 110

Lab Sample ID: 180-88428-1 MS
Matrix: Water
Analysis Batch: 275670

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.6		25.0	28.8		mg/L		97	80 - 120
Fluoride	0.12	J	1.25	1.31		mg/L		95	80 - 120
Sulfate	16		25.0	39.3		mg/L		95	80 - 120

Lab Sample ID: 180-88428-1 MSD
Matrix: Water
Analysis Batch: 275670

Client Sample ID: SGWC-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	4.6		25.0	28.9		mg/L		97	80 - 120	0	20
Fluoride	0.12	J	1.25	1.37		mg/L		100	80 - 120	5	20
Sulfate	16		25.0	40.4		mg/L		99	80 - 120	3	20

Lab Sample ID: MB 180-275697/17
Matrix: Water
Analysis Batch: 275697

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/14/19 13:11	1
Fluoride	<0.026		0.20	0.026	mg/L			04/14/19 13:11	1
Sulfate	<0.38		1.0	0.38	mg/L			04/14/19 13:11	1

Lab Sample ID: LCS 180-275697/16
Matrix: Water
Analysis Batch: 275697

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.5		mg/L		102	90 - 110
Fluoride	1.25	1.27		mg/L		102	90 - 110
Sulfate	25.0	25.6		mg/L		102	90 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-88533-1 MS
Matrix: Water
Analysis Batch: 275697

Client Sample ID: SGWC-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.0		25.0	27.8		mg/L		103	80 - 120
Fluoride	0.10	J	1.25	1.44		mg/L		107	80 - 120
Sulfate	1.3		25.0	26.8		mg/L		102	80 - 120

Lab Sample ID: 180-88533-1 MSD
Matrix: Water
Analysis Batch: 275697

Client Sample ID: SGWC-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.0		25.0	27.8		mg/L		103	80 - 120	0	20
Fluoride	0.10	J	1.25	1.44		mg/L		107	80 - 120	0	20
Sulfate	1.3		25.0	26.8		mg/L		102	80 - 120	0	20

Lab Sample ID: MB 180-275706/6
Matrix: Water
Analysis Batch: 275706

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/15/19 05:00	1
Fluoride	<0.026		0.20	0.026	mg/L			04/15/19 05:00	1
Sulfate	<0.38		1.0	0.38	mg/L			04/15/19 05:00	1

Lab Sample ID: LCS 180-275706/5
Matrix: Water
Analysis Batch: 275706

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	24.6		mg/L		98	90 - 110
Fluoride	1.25	1.21		mg/L		97	90 - 110
Sulfate	25.0	24.5		mg/L		98	90 - 110

Lab Sample ID: MB 180-275743/5
Matrix: Water
Analysis Batch: 275743

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.38		1.0	0.38	mg/L			04/15/19 05:59	1

Lab Sample ID: LCS 180-275743/6
Matrix: Water
Analysis Batch: 275743

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	25.0	23.5		mg/L		94	90 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-435839/1-A ^5
Matrix: Water
Analysis Batch: 436341

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 435839

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/19 10:15	04/04/19 21:14	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/19 10:15	04/04/19 21:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 21:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/19 10:15	04/04/19 21:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/19 10:15	04/04/19 21:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/19 10:15	04/04/19 21:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/19 10:15	04/04/19 21:14	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/19 10:15	04/04/19 21:14	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/04/19 10:15	04/04/19 21:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/19 10:15	04/04/19 21:14	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/04/19 10:15	04/04/19 21:14	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/19 10:15	04/04/19 21:14	5
Boron	<0.021		0.050	0.021	mg/L		04/04/19 10:15	04/04/19 21:14	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/04/19 10:15	04/04/19 21:14	5

Lab Sample ID: LCS 400-435839/2-A
Matrix: Water
Analysis Batch: 436341

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 435839

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0508		mg/L		102	80 - 120
Barium	0.0500	0.0484		mg/L		97	80 - 120
Beryllium	0.0500	0.0494		mg/L		99	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Cobalt	0.0500	0.0492		mg/L		98	80 - 120
Chromium	0.0500	0.0488		mg/L		98	80 - 120
Lead	0.0500	0.0521		mg/L		104	80 - 120
Antimony	0.0500	0.0490		mg/L		98	80 - 120
Selenium	0.0500	0.0470		mg/L		94	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120
Molybdenum	0.0500	0.0552		mg/L		110	80 - 120
Calcium	5.00	4.79		mg/L		96	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Lithium	0.0500	0.0515		mg/L		103	80 - 120

Lab Sample ID: MB 400-436825/1-A ^5
Matrix: Water
Analysis Batch: 436932

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/11/19 17:30	04/12/19 09:23	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/11/19 17:30	04/12/19 09:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 09:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/11/19 17:30	04/12/19 09:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/11/19 17:30	04/12/19 09:23	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/11/19 17:30	04/12/19 09:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/11/19 17:30	04/12/19 09:23	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/11/19 17:30	04/12/19 09:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/11/19 17:30	04/12/19 09:23	5

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: MB 400-436825/1-A ^5
Matrix: Water
Analysis Batch: 436932

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/11/19 17:30	04/12/19 09:23	5
Calcium	<0.13		0.25	0.13	mg/L		04/11/19 17:30	04/12/19 09:23	5
Boron	<0.021		0.050	0.021	mg/L		04/11/19 17:30	04/12/19 09:23	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/11/19 17:30	04/12/19 09:23	5

Lab Sample ID: LCS 400-436825/2-A
Matrix: Water
Analysis Batch: 436932

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 436825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0501		mg/L		100	80 - 120
Barium	0.0500	0.0506		mg/L		101	80 - 120
Beryllium	0.0500	0.0476		mg/L		95	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Cobalt	0.0500	0.0488		mg/L		98	80 - 120
Chromium	0.0500	0.0472		mg/L		94	80 - 120
Lead	0.0500	0.0507		mg/L		101	80 - 120
Selenium	0.0500	0.0479		mg/L		96	80 - 120
Thallium	0.0100	0.00993		mg/L		99	80 - 120
Molybdenum	0.0500	0.0522		mg/L		104	80 - 120
Calcium	5.00	4.74		mg/L		95	80 - 120
Boron	0.100	0.108		mg/L		108	80 - 120
Lithium	0.0500	0.0505		mg/L		101	80 - 120

Lab Sample ID: 180-88428-2 MS
Matrix: Water
Analysis Batch: 436932

Client Sample ID: SGWC-8
Prep Type: Total Recoverable
Prep Batch: 436825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0010	J	0.0500	0.0526		mg/L		103	75 - 125
Barium	0.19		0.0500	0.239		mg/L		105	75 - 125
Beryllium	<0.00034		0.0500	0.0488		mg/L		98	75 - 125
Cadmium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125
Cobalt	<0.00040		0.0500	0.0493		mg/L		99	75 - 125
Chromium	0.0013	J	0.0500	0.0487		mg/L		95	75 - 125
Lead	<0.00035		0.0500	0.0516		mg/L		103	75 - 125
Selenium	<0.00071		0.0500	0.0497		mg/L		99	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125
Molybdenum	<0.0020		0.0500	0.0540		mg/L		108	75 - 125
Calcium	45		5.00	51.1	4	mg/L		113	75 - 125
Boron	0.076		0.100	0.195		mg/L		119	75 - 125
Lithium	0.0021	J	0.0500	0.0511		mg/L		98	75 - 125

Lab Sample ID: 180-88428-2 MSD
Matrix: Water
Analysis Batch: 436932

Client Sample ID: SGWC-8
Prep Type: Total Recoverable
Prep Batch: 436825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0010	J	0.0500	0.0513		mg/L		101	75 - 125	2	20

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: 180-88428-2 MSD
Matrix: Water
Analysis Batch: 436932

Client Sample ID: SGWC-8
Prep Type: Total Recoverable
Prep Batch: 436825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.19		0.0500	0.238		mg/L		103	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0479		mg/L		96	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0511		mg/L		102	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0490		mg/L		98	75 - 125	1	20
Chromium	0.0013	J	0.0500	0.0485		mg/L		94	75 - 125	0	20
Lead	<0.00035		0.0500	0.0501		mg/L		100	75 - 125	3	20
Selenium	<0.00071		0.0500	0.0478		mg/L		96	75 - 125	4	20
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125	0	20
Molybdenum	<0.0020		0.0500	0.0533		mg/L		107	75 - 125	1	20
Calcium	45		5.00	51.0	4	mg/L		112	75 - 125	0	20
Boron	0.076		0.100	0.192		mg/L		116	75 - 125	1	20
Lithium	0.0021	J	0.0500	0.0516		mg/L		99	75 - 125	1	20

Lab Sample ID: MB 400-437187/1-A ^5
Matrix: Water
Analysis Batch: 437398

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 437187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/15/19 16:45	04/17/19 08:41	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/15/19 16:45	04/17/19 08:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 08:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/15/19 16:45	04/17/19 08:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/15/19 16:45	04/17/19 08:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/15/19 16:45	04/17/19 08:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/15/19 16:45	04/17/19 08:41	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/15/19 16:45	04/17/19 08:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/15/19 16:45	04/17/19 08:41	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		04/15/19 16:45	04/17/19 08:41	5
Calcium	<0.13		0.25	0.13	mg/L		04/15/19 16:45	04/17/19 08:41	5
Boron	<0.021		0.050	0.021	mg/L		04/15/19 16:45	04/17/19 08:41	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/15/19 16:45	04/17/19 08:41	5

Lab Sample ID: LCS 400-437187/2-A
Matrix: Water
Analysis Batch: 437398

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 437187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0498		mg/L		100	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Beryllium	0.0500	0.0475		mg/L		95	80 - 120
Cadmium	0.0500	0.0495		mg/L		99	80 - 120
Cobalt	0.0500	0.0505		mg/L		101	80 - 120
Chromium	0.0500	0.0476		mg/L		95	80 - 120
Lead	0.0500	0.0485		mg/L		97	80 - 120
Selenium	0.0500	0.0510		mg/L		102	80 - 120
Thallium	0.0100	0.00948		mg/L		95	80 - 120
Molybdenum	0.0500	0.0526		mg/L		105	80 - 120
Calcium	5.00	4.62		mg/L		92	80 - 120
Boron	0.100	0.0975		mg/L		98	80 - 120

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: LCS 400-437187/2-A
Matrix: Water
Analysis Batch: 437398

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 437187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Lithium	0.0500	0.0473		mg/L		95	80 - 120

Lab Sample ID: 180-88533-1 MS
Matrix: Water
Analysis Batch: 437398

Client Sample ID: SGWC-6
Prep Type: Total Recoverable
Prep Batch: 437187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.00046		0.0500	0.0526		mg/L		105	75 - 125
Barium	0.069		0.0500	0.121		mg/L		103	75 - 125
Beryllium	<0.00034		0.0500	0.0491	^	mg/L		98	75 - 125
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125
Cobalt	<0.00040		0.0500	0.0527		mg/L		105	75 - 125
Chromium	<0.0011		0.0500	0.0493		mg/L		99	75 - 125
Lead	<0.00035		0.0500	0.0514		mg/L		103	75 - 125
Selenium	<0.00071		0.0500	0.0585		mg/L		117	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125
Molybdenum	<0.0020		0.0500	0.0543		mg/L		109	75 - 125
Calcium	6.5		5.00	11.5		mg/L		101	75 - 125
Boron	<0.021	F1 F2	0.100	0.0835		mg/L		83	75 - 125
Lithium	<0.0011		0.0500	0.0497	^	mg/L		99	75 - 125

Lab Sample ID: 180-88533-1 MSD
Matrix: Water
Analysis Batch: 437398

Client Sample ID: SGWC-6
Prep Type: Total Recoverable
Prep Batch: 437187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	<0.00046		0.0500	0.0515		mg/L		103	75 - 125	2	20
Barium	0.069		0.0500	0.120		mg/L		101	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0470	^	mg/L		94	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0495		mg/L		99	75 - 125	3	20
Cobalt	<0.00040		0.0500	0.0530		mg/L		106	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0498		mg/L		100	75 - 125	1	20
Lead	<0.00035		0.0500	0.0490		mg/L		98	75 - 125	5	20
Selenium	<0.00071		0.0500	0.0529		mg/L		106	75 - 125	10	20
Thallium	<0.000085		0.0100	0.00984		mg/L		98	75 - 125	3	20
Molybdenum	<0.0020		0.0500	0.0520		mg/L		104	75 - 125	4	20
Calcium	6.5		5.00	11.6		mg/L		101	75 - 125	0	20
Boron	<0.021	F1 F2	0.100	0.0679	F1 F2	mg/L		68	75 - 125	21	20
Lithium	<0.0011		0.0500	0.0462	^	mg/L		92	75 - 125	7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-435663/14-A
Matrix: Water
Analysis Batch: 436068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435663

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/19 09:18	04/05/19 12:58	1

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: LCS 400-435663/15-A
Matrix: Water
Analysis Batch: 436068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435663
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00102		mg/L		101	80 - 120

Lab Sample ID: MB 400-436430/14-A
Matrix: Water
Analysis Batch: 436767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/09/19 14:09	04/11/19 09:46	1

Lab Sample ID: LCS 400-436430/15-A
Matrix: Water
Analysis Batch: 436767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436430
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000960		mg/L		95	80 - 120

Lab Sample ID: 180-88428-1 MS
Matrix: Water
Analysis Batch: 436767

Client Sample ID: SGWC-7
Prep Type: Total/NA
Prep Batch: 436430
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00221		mg/L		110	80 - 120

Lab Sample ID: 180-88428-1 MSD
Matrix: Water
Analysis Batch: 436767

Client Sample ID: SGWC-7
Prep Type: Total/NA
Prep Batch: 436430
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00204		mg/L		101	80 - 120	8	20

Lab Sample ID: MB 400-436582/14-A
Matrix: Water
Analysis Batch: 436767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/10/19 14:16	04/11/19 12:23	1

Lab Sample ID: LCS 400-436582/15-A
Matrix: Water
Analysis Batch: 436767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436582
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00103		mg/L		103	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: MB 180-274611/2
Matrix: Water
Analysis Batch: 274611

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 12:58	1

Lab Sample ID: LCS 180-274611/1
Matrix: Water
Analysis Batch: 274611

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	304	308		mg/L		101	80 - 120

Lab Sample ID: MB 180-274717/2
Matrix: Water
Analysis Batch: 274717

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/03/19 11:13	1

Lab Sample ID: LCS 180-274717/1
Matrix: Water
Analysis Batch: 274717

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	304	246		mg/L		81	80 - 120

Lab Sample ID: MB 180-274838/2
Matrix: Water
Analysis Batch: 274838

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/04/19 12:11	1

Lab Sample ID: LCS 180-274838/1
Matrix: Water
Analysis Batch: 274838

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	304	258		mg/L		85	80 - 120

Lab Sample ID: MB 180-274865/2
Matrix: Water
Analysis Batch: 274865

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/04/19 13:40	1

Lab Sample ID: LCS 180-274865/1
Matrix: Water
Analysis Batch: 274865

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	304	286		mg/L		94	80 - 120

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: MB 180-274958/2
Matrix: Water
Analysis Batch: 274958

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/05/19 12:09	1

Lab Sample ID: LCS 180-274958/1
Matrix: Water
Analysis Batch: 274958

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	304	324		mg/L		107	80 - 120

Lab Sample ID: MB 180-275110/2
Matrix: Water
Analysis Batch: 275110

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/08/19 11:54	1

Lab Sample ID: LCS 180-275110/1
Matrix: Water
Analysis Batch: 275110

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	304	286		mg/L		94	80 - 120

Lab Sample ID: 180-88428-5 DU
Matrix: Water
Analysis Batch: 275110

Client Sample ID: SGWC-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	33		34.0		mg/L		3	10

Lab Sample ID: MB 180-276061/2
Matrix: Water
Analysis Batch: 276061

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/17/19 15:52	1

Lab Sample ID: LCS 180-276061/1
Matrix: Water
Analysis Batch: 276061

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	201	220		mg/L		109	80 - 120

Lab Sample ID: 180-88533-5 DU
Matrix: Water
Analysis Batch: 276061

Client Sample ID: SGWC19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	420	H	407		mg/L		2	10

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-423239/23-A
Matrix: Water
Analysis Batch: 426506

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423239

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.001833	U	0.0315	0.0315	1.00	0.0713	pCi/L	04/10/19 14:08	05/02/19 21:51	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					04/10/19 14:08	05/02/19 21:51	1
	107									

Lab Sample ID: LCS 160-423239/1-A
Matrix: Water
Analysis Batch: 426594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423239

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits		
				Uncert. (2σ+/-)							
Radium-226	11.4	9.150		0.951	1.00	0.0762	pCi/L	81	75 - 125		
Carrier	LCS	LCS									
Ba Carrier	%Yield	Qualifier	Limits								
	108		40 - 110								

Lab Sample ID: LCSD 160-423239/2-A
Matrix: Water
Analysis Batch: 426506

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423239

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit	
				Uncert. (2σ+/-)								
Radium-226	11.4	8.705		0.904	1.00	0.0678	pCi/L	77	75 - 125	0.24	1	
Carrier	LCSD	LCSD										
Ba Carrier	%Yield	Qualifier	Limits									
	107		40 - 110									

Lab Sample ID: MB 160-423241/23-A
Matrix: Water
Analysis Batch: 426595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423241

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01221	U	0.0250	0.0250	1.00	0.0670	pCi/L	04/10/19 14:10	05/03/19 11:21	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	40 - 110					04/10/19 14:10	05/03/19 11:21	1
	104									

Lab Sample ID: LCS 160-423241/1-A
Matrix: Water
Analysis Batch: 426506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423241

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.945		1.02	1.00	0.0643	pCi/L	88	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: LCS 160-423241/1-A
Matrix: Water
Analysis Batch: 426506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423241

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		40 - 110

Lab Sample ID: LCSD 160-423241/2-A
Matrix: Water
Analysis Batch: 426506

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423241

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	10.61		1.11	1.00	0.0774	pCi/L	93	75 - 125	0.31	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	96.8		40 - 110

Lab Sample ID: MB 160-423612/23-A
Matrix: Water
Analysis Batch: 427793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423612

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02477	U	0.0512	0.0512	1.00	0.0945	pCi/L	04/14/19 16:53	05/09/19 12:44	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110	04/14/19 16:53	05/09/19 12:44	1

Lab Sample ID: LCS 160-423612/1-A
Matrix: Water
Analysis Batch: 427794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423612

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.200		0.987	1.00	0.0782	pCi/L	81	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.6		40 - 110

Lab Sample ID: LCSD 160-423612/2-A
Matrix: Water
Analysis Batch: 427796

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423612

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	9.064		0.954	1.00	0.0892	pCi/L	80	75 - 125	0.07	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	98.5		40 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: LCS 160-423240/1-A
Matrix: Water
Analysis Batch: 424434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423240

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.29	7.592		0.974	1.00	0.471	pCi/L	82	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	108		40 - 110
Y Carrier	67.7		40 - 110

Lab Sample ID: LCSD 160-423240/2-A
Matrix: Water
Analysis Batch: 424434

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423240

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	9.29	8.047		0.972	1.00	0.390	pCi/L	87	75 - 125	0.23	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	107		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: MB 160-423242/23-A
Matrix: Water
Analysis Batch: 424351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423242

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3112	U	0.213	0.215	1.00	0.330	pCi/L	04/10/19 14:13	04/18/19 15:34	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110	04/10/19 14:13	04/18/19 15:34	1
Y Carrier	89.3		40 - 110	04/10/19 14:13	04/18/19 15:34	1

Lab Sample ID: LCS 160-423242/1-A
Matrix: Water
Analysis Batch: 424352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423242

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.29	7.688		0.921	1.00	0.357	pCi/L	83	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	81.5		40 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

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

Lab Sample ID: LCSD 160-423242/2-A
Matrix: Water
Analysis Batch: 424352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423242

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	0.20	1	
Radium-228	9.29	7.329		0.883	1.00	0.330	pCi/L	79	75 - 125	0.20		1
Carrier		LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier		96.8		40 - 110								
Y Carrier		89.7		40 - 110								

Lab Sample ID: MB 160-423844/23-A
Matrix: Water
Analysis Batch: 426331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423844

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1111	U	0.248	0.249	1.00	0.425	pCi/L	04/14/19 16:53	05/01/19 15:56	1
Carrier		MB %Yield	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Ba Carrier		99.7		40 - 110				04/14/19 16:53	05/01/19 15:56	1
Y Carrier		84.5		40 - 110				04/14/19 16:53	05/01/19 15:56	1

Lab Sample ID: LCS 160-423844/1-A
Matrix: Water
Analysis Batch: 426333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423844

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75 - 125	
Radium-228	9.25	8.496		1.02	1.00	0.370	pCi/L	92	75 - 125	
Carrier		LCS %Yield	LCS Qualifier	Limits						
Ba Carrier		95.6		40 - 110						
Y Carrier		86.4		40 - 110						

Lab Sample ID: LCSD 160-423844/2-A
Matrix: Water
Analysis Batch: 426333

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423844

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	0.06	1	
Radium-228	9.25	8.617		1.03	1.00	0.370	pCi/L	93	75 - 125	0.06		1
Carrier		LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier		98.5		40 - 110								
Y Carrier		83.0		40 - 110								

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

HPLC/IC

Analysis Batch: 274458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total/NA	Water	EPA 300.0 R2.1	
MB 180-274458/41	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-274458/38	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 274532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-2	SGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-88347-3	SGWA-25	Total/NA	Water	EPA 300.0 R2.1	
180-88347-4	SGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-88347-5	FD-1 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88347-6	FB-1 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88347-7	EB-1 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88347-8	SGWA-1	Total/NA	Water	EPA 300.0 R2.1	
180-88347-9	SGWA-2	Total/NA	Water	EPA 300.0 R2.1	
180-88347-10	SGWA-24	Total/NA	Water	EPA 300.0 R2.1	
MB 180-274532/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-274532/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-88347-5 MS	FD-1 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88347-5 MSD	FD-1 (AP)	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 275670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-88428-2	SGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-88428-3	SGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-88428-3	SGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-88428-4	SGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-88428-5	SGWC-11	Total/NA	Water	EPA 300.0 R2.1	
180-88428-6	SGWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-88428-7	SGWC-13	Total/NA	Water	EPA 300.0 R2.1	
180-88428-8	SGWC-14	Total/NA	Water	EPA 300.0 R2.1	
180-88428-9	SGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-88428-10	EB-2 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88428-11	FB-2 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88428-12	FD-2 (AP)	Total/NA	Water	EPA 300.0 R2.1	
MB 180-275670/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-275670/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-88428-1 MS	SGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-88428-1 MSD	SGWC-7	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 275697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-1	SGWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-88533-2	SGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-88533-3	SGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-88533-4	SGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-88533-4	SGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-88533-5	SGWC19	Total/NA	Water	EPA 300.0 R2.1	
180-88533-6	SGWC-20	Total/NA	Water	EPA 300.0 R2.1	
180-88533-7	SGWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-88533-8	SGWC22	Total/NA	Water	EPA 300.0 R2.1	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

HPLC/IC (Continued)

Analysis Batch: 275697 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-9	SGWC23	Total/NA	Water	EPA 300.0 R2.1	
180-88533-10	FB-3 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88533-11	EB-3 (AP)	Total/NA	Water	EPA 300.0 R2.1	
MB 180-275697/17	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-275697/16	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-88533-1 MS	SGWC-6	Total/NA	Water	EPA 300.0 R2.1	
180-88533-1 MSD	SGWC-6	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 275706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-12	FD-3 (AP)	Total/NA	Water	EPA 300.0 R2.1	
180-88533-12	FD-3 (AP)	Total/NA	Water	EPA 300.0 R2.1	
MB 180-275706/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-275706/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 275743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-5	SGWC19	Total/NA	Water	EPA 300.0 R2.1	
180-88533-6	SGWC-20	Total/NA	Water	EPA 300.0 R2.1	
MB 180-275743/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-275743/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 435663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total/NA	Water	7470A	
180-88347-2	SGWA-5	Total/NA	Water	7470A	
180-88347-3	SGWA-25	Total/NA	Water	7470A	
180-88347-4	SGWA-3	Total/NA	Water	7470A	
180-88347-5	FD-1 (AP)	Total/NA	Water	7470A	
180-88347-6	FB-1 (AP)	Total/NA	Water	7470A	
180-88347-7	EB-1 (AP)	Total/NA	Water	7470A	
180-88347-8	SGWA-1	Total/NA	Water	7470A	
180-88347-9	SGWA-2	Total/NA	Water	7470A	
180-88347-10	SGWA-24	Total/NA	Water	7470A	
MB 400-435663/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-435663/15-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 435839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total Recoverable	Water	3005A	
180-88347-2	SGWA-5	Total Recoverable	Water	3005A	
180-88347-3	SGWA-25	Total Recoverable	Water	3005A	
180-88347-4	SGWA-3	Total Recoverable	Water	3005A	
180-88347-5	FD-1 (AP)	Total Recoverable	Water	3005A	
180-88347-6	FB-1 (AP)	Total Recoverable	Water	3005A	
180-88347-7	EB-1 (AP)	Total Recoverable	Water	3005A	
180-88347-8	SGWA-1	Total Recoverable	Water	3005A	
180-88347-9	SGWA-2	Total Recoverable	Water	3005A	
180-88347-10	SGWA-24	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Metals (Continued)

Prep Batch: 435839 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-435839/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-435839/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 436068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total/NA	Water	7470A	435663
180-88347-2	SGWA-5	Total/NA	Water	7470A	435663
180-88347-3	SGWA-25	Total/NA	Water	7470A	435663
180-88347-4	SGWA-3	Total/NA	Water	7470A	435663
180-88347-5	FD-1 (AP)	Total/NA	Water	7470A	435663
180-88347-6	FB-1 (AP)	Total/NA	Water	7470A	435663
180-88347-7	EB-1 (AP)	Total/NA	Water	7470A	435663
180-88347-8	SGWA-1	Total/NA	Water	7470A	435663
180-88347-9	SGWA-2	Total/NA	Water	7470A	435663
180-88347-10	SGWA-24	Total/NA	Water	7470A	435663
MB 400-435663/14-A	Method Blank	Total/NA	Water	7470A	435663
LCS 400-435663/15-A	Lab Control Sample	Total/NA	Water	7470A	435663

Analysis Batch: 436341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total Recoverable	Water	6020	435839
180-88347-2	SGWA-5	Total Recoverable	Water	6020	435839
180-88347-3	SGWA-25	Total Recoverable	Water	6020	435839
180-88347-4	SGWA-3	Total Recoverable	Water	6020	435839
180-88347-5	FD-1 (AP)	Total Recoverable	Water	6020	435839
180-88347-6	FB-1 (AP)	Total Recoverable	Water	6020	435839
180-88347-7	EB-1 (AP)	Total Recoverable	Water	6020	435839
180-88347-8	SGWA-1	Total Recoverable	Water	6020	435839
180-88347-9	SGWA-2	Total Recoverable	Water	6020	435839
180-88347-10	SGWA-24	Total Recoverable	Water	6020	435839
MB 400-435839/1-A ^5	Method Blank	Total Recoverable	Water	6020	435839
LCS 400-435839/2-A	Lab Control Sample	Total Recoverable	Water	6020	435839

Prep Batch: 436430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total/NA	Water	7470A	
180-88428-2	SGWC-8	Total/NA	Water	7470A	
180-88428-3	SGWC-9	Total/NA	Water	7470A	
180-88428-4	SGWC-10	Total/NA	Water	7470A	
180-88428-5	SGWC-11	Total/NA	Water	7470A	
180-88428-6	SGWC-12	Total/NA	Water	7470A	
180-88428-7	SGWC-13	Total/NA	Water	7470A	
180-88428-8	SGWC-14	Total/NA	Water	7470A	
180-88428-9	SGWC-15	Total/NA	Water	7470A	
180-88428-10	EB-2 (AP)	Total/NA	Water	7470A	
180-88428-11	FB-2 (AP)	Total/NA	Water	7470A	
180-88428-12	FD-2 (AP)	Total/NA	Water	7470A	
MB 400-436430/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-436430/15-A	Lab Control Sample	Total/NA	Water	7470A	
180-88428-1 MS	SGWC-7	Total/NA	Water	7470A	
180-88428-1 MSD	SGWC-7	Total/NA	Water	7470A	

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QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Metals

Prep Batch: 436582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-1	SGWC-6	Total/NA	Water	7470A	
180-88533-2	SGWC-16	Total/NA	Water	7470A	
180-88533-3	SGWC-17	Total/NA	Water	7470A	
180-88533-4	SGWC-18	Total/NA	Water	7470A	
180-88533-5	SGWC19	Total/NA	Water	7470A	
180-88533-6	SGWC-20	Total/NA	Water	7470A	
180-88533-7	SGWC-21	Total/NA	Water	7470A	
180-88533-8	SGWC22	Total/NA	Water	7470A	
180-88533-9	SGWC23	Total/NA	Water	7470A	
180-88533-10	FB-3 (AP)	Total/NA	Water	7470A	
180-88533-11	EB-3 (AP)	Total/NA	Water	7470A	
180-88533-12	FD-3 (AP)	Total/NA	Water	7470A	
MB 400-436582/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-436582/15-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 436767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total/NA	Water	7470A	436430
180-88428-2	SGWC-8	Total/NA	Water	7470A	436430
180-88428-3	SGWC-9	Total/NA	Water	7470A	436430
180-88428-4	SGWC-10	Total/NA	Water	7470A	436430
180-88428-5	SGWC-11	Total/NA	Water	7470A	436430
180-88428-6	SGWC-12	Total/NA	Water	7470A	436430
180-88428-7	SGWC-13	Total/NA	Water	7470A	436430
180-88428-8	SGWC-14	Total/NA	Water	7470A	436430
180-88428-9	SGWC-15	Total/NA	Water	7470A	436430
180-88428-10	EB-2 (AP)	Total/NA	Water	7470A	436430
180-88428-11	FB-2 (AP)	Total/NA	Water	7470A	436430
180-88428-12	FD-2 (AP)	Total/NA	Water	7470A	436430
180-88533-1	SGWC-6	Total/NA	Water	7470A	436582
180-88533-2	SGWC-16	Total/NA	Water	7470A	436582
180-88533-3	SGWC-17	Total/NA	Water	7470A	436582
180-88533-4	SGWC-18	Total/NA	Water	7470A	436582
180-88533-5	SGWC19	Total/NA	Water	7470A	436582
180-88533-6	SGWC-20	Total/NA	Water	7470A	436582
180-88533-7	SGWC-21	Total/NA	Water	7470A	436582
180-88533-8	SGWC22	Total/NA	Water	7470A	436582
180-88533-9	SGWC23	Total/NA	Water	7470A	436582
180-88533-10	FB-3 (AP)	Total/NA	Water	7470A	436582
180-88533-11	EB-3 (AP)	Total/NA	Water	7470A	436582
180-88533-12	FD-3 (AP)	Total/NA	Water	7470A	436582
MB 400-436430/14-A	Method Blank	Total/NA	Water	7470A	436430
MB 400-436582/14-A	Method Blank	Total/NA	Water	7470A	436582
LCS 400-436430/15-A	Lab Control Sample	Total/NA	Water	7470A	436430
LCS 400-436582/15-A	Lab Control Sample	Total/NA	Water	7470A	436582
180-88428-1 MS	SGWC-7	Total/NA	Water	7470A	436430
180-88428-1 MSD	SGWC-7	Total/NA	Water	7470A	436430

Prep Batch: 436825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total Recoverable	Water	3005A	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Metals (Continued)

Prep Batch: 436825 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-2	SGWC-8	Total Recoverable	Water	3005A	
180-88428-3 - DL	SGWC-9	Total Recoverable	Water	3005A	
180-88428-3	SGWC-9	Total Recoverable	Water	3005A	
180-88428-4	SGWC-10	Total Recoverable	Water	3005A	
180-88428-5	SGWC-11	Total Recoverable	Water	3005A	
180-88428-6	SGWC-12	Total Recoverable	Water	3005A	
180-88428-7	SGWC-13	Total Recoverable	Water	3005A	
180-88428-8	SGWC-14	Total Recoverable	Water	3005A	
180-88428-9	SGWC-15	Total Recoverable	Water	3005A	
180-88428-10	EB-2 (AP)	Total Recoverable	Water	3005A	
180-88428-11	FB-2 (AP)	Total Recoverable	Water	3005A	
180-88428-12	FD-2 (AP)	Total Recoverable	Water	3005A	
MB 400-436825/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-436825/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-88428-2 MS	SGWC-8	Total Recoverable	Water	3005A	
180-88428-2 MSD	SGWC-8	Total Recoverable	Water	3005A	

Analysis Batch: 436932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total Recoverable	Water	6020	436825
180-88428-2	SGWC-8	Total Recoverable	Water	6020	436825
180-88428-3	SGWC-9	Total Recoverable	Water	6020	436825
180-88428-3 - DL	SGWC-9	Total Recoverable	Water	6020	436825
180-88428-4	SGWC-10	Total Recoverable	Water	6020	436825
180-88428-5	SGWC-11	Total Recoverable	Water	6020	436825
180-88428-6	SGWC-12	Total Recoverable	Water	6020	436825
180-88428-7	SGWC-13	Total Recoverable	Water	6020	436825
180-88428-8	SGWC-14	Total Recoverable	Water	6020	436825
180-88428-9	SGWC-15	Total Recoverable	Water	6020	436825
180-88428-10	EB-2 (AP)	Total Recoverable	Water	6020	436825
180-88428-11	FB-2 (AP)	Total Recoverable	Water	6020	436825
180-88428-12	FD-2 (AP)	Total Recoverable	Water	6020	436825
MB 400-436825/1-A ^5	Method Blank	Total Recoverable	Water	6020	436825
LCS 400-436825/2-A	Lab Control Sample	Total Recoverable	Water	6020	436825
180-88428-2 MS	SGWC-8	Total Recoverable	Water	6020	436825
180-88428-2 MSD	SGWC-8	Total Recoverable	Water	6020	436825

Prep Batch: 437187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-1 - RA	SGWC-6	Total Recoverable	Water	3005A	
180-88533-1	SGWC-6	Total Recoverable	Water	3005A	
180-88533-2 - RA	SGWC-16	Total Recoverable	Water	3005A	
180-88533-2	SGWC-16	Total Recoverable	Water	3005A	
180-88533-3	SGWC-17	Total Recoverable	Water	3005A	
180-88533-3 - RA	SGWC-17	Total Recoverable	Water	3005A	
180-88533-4 - DL	SGWC-18	Total Recoverable	Water	3005A	
180-88533-4 - RA	SGWC-18	Total Recoverable	Water	3005A	
180-88533-4	SGWC-18	Total Recoverable	Water	3005A	
180-88533-5	SGWC-19	Total Recoverable	Water	3005A	
180-88533-5 - DL	SGWC-19	Total Recoverable	Water	3005A	
180-88533-6 - DL	SGWC-20	Total Recoverable	Water	3005A	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Metals (Continued)

Prep Batch: 437187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-6	SGWC-20	Total Recoverable	Water	3005A	
180-88533-7	SGWC-21	Total Recoverable	Water	3005A	
180-88533-8	SGWC22	Total Recoverable	Water	3005A	
180-88533-9	SGWC23	Total Recoverable	Water	3005A	
180-88533-10	FB-3 (AP)	Total Recoverable	Water	3005A	
180-88533-11	EB-3 (AP)	Total Recoverable	Water	3005A	
180-88533-12 - DL	FD-3 (AP)	Total Recoverable	Water	3005A	
180-88533-12	FD-3 (AP)	Total Recoverable	Water	3005A	
MB 400-437187/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-437187/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-88533-1 MS	SGWC-6	Total Recoverable	Water	3005A	
180-88533-1 MSD	SGWC-6	Total Recoverable	Water	3005A	

Analysis Batch: 437398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-1	SGWC-6	Total Recoverable	Water	6020	437187
180-88533-1 - RA	SGWC-6	Total Recoverable	Water	6020	437187
180-88533-2	SGWC-16	Total Recoverable	Water	6020	437187
180-88533-2 - RA	SGWC-16	Total Recoverable	Water	6020	437187
180-88533-3	SGWC-17	Total Recoverable	Water	6020	437187
180-88533-3 - RA	SGWC-17	Total Recoverable	Water	6020	437187
180-88533-4	SGWC-18	Total Recoverable	Water	6020	437187
180-88533-4 - RA	SGWC-18	Total Recoverable	Water	6020	437187
180-88533-4 - DL	SGWC-18	Total Recoverable	Water	6020	437187
180-88533-5	SGWC19	Total Recoverable	Water	6020	437187
180-88533-5 - DL	SGWC19	Total Recoverable	Water	6020	437187
180-88533-6	SGWC-20	Total Recoverable	Water	6020	437187
180-88533-6 - DL	SGWC-20	Total Recoverable	Water	6020	437187
180-88533-7	SGWC-21	Total Recoverable	Water	6020	437187
180-88533-8	SGWC22	Total Recoverable	Water	6020	437187
180-88533-9	SGWC23	Total Recoverable	Water	6020	437187
180-88533-10	FB-3 (AP)	Total Recoverable	Water	6020	437187
180-88533-11	EB-3 (AP)	Total Recoverable	Water	6020	437187
180-88533-12	FD-3 (AP)	Total Recoverable	Water	6020	437187
180-88533-12 - DL	FD-3 (AP)	Total Recoverable	Water	6020	437187
MB 400-437187/1-A ^5	Method Blank	Total Recoverable	Water	6020	437187
LCS 400-437187/2-A	Lab Control Sample	Total Recoverable	Water	6020	437187
180-88533-1 MS	SGWC-6	Total Recoverable	Water	6020	437187
180-88533-1 MSD	SGWC-6	Total Recoverable	Water	6020	437187

General Chemistry

Analysis Batch: 274611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total/NA	Water	SM 2540C	
180-88347-2	SGWA-5	Total/NA	Water	SM 2540C	
180-88347-3	SGWA-25	Total/NA	Water	SM 2540C	
180-88347-4	SGWA-3	Total/NA	Water	SM 2540C	
180-88347-5	FD-1 (AP)	Total/NA	Water	SM 2540C	
MB 180-274611/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274611/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

General Chemistry

Analysis Batch: 274717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-6	FB-1 (AP)	Total/NA	Water	SM 2540C	
180-88347-7	EB-1 (AP)	Total/NA	Water	SM 2540C	
MB 180-274717/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274717/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 274838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-8	SGWA-1	Total/NA	Water	SM 2540C	
180-88347-9	SGWA-2	Total/NA	Water	SM 2540C	
MB 180-274838/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274838/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 274865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-10	SGWA-24	Total/NA	Water	SM 2540C	
MB 180-274865/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274865/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 274958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total/NA	Water	SM 2540C	
MB 180-274958/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274958/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 275110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-2	SGWC-8	Total/NA	Water	SM 2540C	
180-88428-3	SGWC-9	Total/NA	Water	SM 2540C	
180-88428-4	SGWC-10	Total/NA	Water	SM 2540C	
180-88428-5	SGWC-11	Total/NA	Water	SM 2540C	
180-88428-6	SGWC-12	Total/NA	Water	SM 2540C	
180-88428-7	SGWC-13	Total/NA	Water	SM 2540C	
180-88428-8	SGWC-14	Total/NA	Water	SM 2540C	
180-88428-9	SGWC-15	Total/NA	Water	SM 2540C	
180-88428-10	EB-2 (AP)	Total/NA	Water	SM 2540C	
180-88428-11	FB-2 (AP)	Total/NA	Water	SM 2540C	
180-88428-12	FD-2 (AP)	Total/NA	Water	SM 2540C	
MB 180-275110/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-275110/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-88428-5 DU	SGWC-11	Total/NA	Water	SM 2540C	

Analysis Batch: 276061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-1	SGWC-6	Total/NA	Water	SM 2540C	
180-88533-2	SGWC-16	Total/NA	Water	SM 2540C	
180-88533-3	SGWC-17	Total/NA	Water	SM 2540C	
180-88533-4	SGWC-18	Total/NA	Water	SM 2540C	
180-88533-5	SGWC-19	Total/NA	Water	SM 2540C	
180-88533-6	SGWC-20	Total/NA	Water	SM 2540C	
180-88533-7	SGWC-21	Total/NA	Water	SM 2540C	
180-88533-8	SGWC-22	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

General Chemistry (Continued)

Analysis Batch: 276061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-9	SGWC23	Total/NA	Water	SM 2540C	
180-88533-10	FB-3 (AP)	Total/NA	Water	SM 2540C	
180-88533-11	EB-3 (AP)	Total/NA	Water	SM 2540C	
180-88533-12	FD-3 (AP)	Total/NA	Water	SM 2540C	
MB 180-276061/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-276061/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-88533-5 DU	SGWC19	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 423239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-8	SGWC22	Total/NA	Water	PrecSep-21	
180-88533-9	SGWC23	Total/NA	Water	PrecSep-21	
180-88533-10	FB-3 (AP)	Total/NA	Water	PrecSep-21	
180-88533-11	EB-3 (AP)	Total/NA	Water	PrecSep-21	
180-88533-12	FD-3 (AP)	Total/NA	Water	PrecSep-21	
MB 160-423239/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-423239/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-423239/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 423240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-8	SGWC22	Total/NA	Water	PrecSep_0	
180-88533-9	SGWC23	Total/NA	Water	PrecSep_0	
180-88533-10	FB-3 (AP)	Total/NA	Water	PrecSep_0	
180-88533-11	EB-3 (AP)	Total/NA	Water	PrecSep_0	
180-88533-12	FD-3 (AP)	Total/NA	Water	PrecSep_0	
LCS 160-423240/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-423240/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 423241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total/NA	Water	PrecSep-21	
180-88428-2	SGWC-8	Total/NA	Water	PrecSep-21	
180-88428-3	SGWC-9	Total/NA	Water	PrecSep-21	
180-88428-4	SGWC-10	Total/NA	Water	PrecSep-21	
180-88428-5	SGWC-11	Total/NA	Water	PrecSep-21	
180-88428-6	SGWC-12	Total/NA	Water	PrecSep-21	
180-88428-7	SGWC-13	Total/NA	Water	PrecSep-21	
180-88428-8	SGWC-14	Total/NA	Water	PrecSep-21	
180-88428-9	SGWC-15	Total/NA	Water	PrecSep-21	
180-88428-10	EB-2 (AP)	Total/NA	Water	PrecSep-21	
180-88428-11	FB-2 (AP)	Total/NA	Water	PrecSep-21	
180-88428-12	FD-2 (AP)	Total/NA	Water	PrecSep-21	
180-88533-1	SGWC-6	Total/NA	Water	PrecSep-21	
180-88533-2	SGWC-16	Total/NA	Water	PrecSep-21	
180-88533-3	SGWC-17	Total/NA	Water	PrecSep-21	
180-88533-4	SGWC-18	Total/NA	Water	PrecSep-21	
180-88533-5	SGWC-19	Total/NA	Water	PrecSep-21	
180-88533-6	SGWC-20	Total/NA	Water	PrecSep-21	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Rad (Continued)

Prep Batch: 423241 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88533-7	SGWC-21	Total/NA	Water	PrecSep-21	
MB 160-423241/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-423241/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-423241/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 423242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88428-1	SGWC-7	Total/NA	Water	PrecSep_0	
180-88428-2	SGWC-8	Total/NA	Water	PrecSep_0	
180-88428-3	SGWC-9	Total/NA	Water	PrecSep_0	
180-88428-4	SGWC-10	Total/NA	Water	PrecSep_0	
180-88428-5	SGWC-11	Total/NA	Water	PrecSep_0	
180-88428-6	SGWC-12	Total/NA	Water	PrecSep_0	
180-88428-7	SGWC-13	Total/NA	Water	PrecSep_0	
180-88428-8	SGWC-14	Total/NA	Water	PrecSep_0	
180-88428-9	SGWC-15	Total/NA	Water	PrecSep_0	
180-88428-10	EB-2 (AP)	Total/NA	Water	PrecSep_0	
180-88428-11	FB-2 (AP)	Total/NA	Water	PrecSep_0	
180-88428-12	FD-2 (AP)	Total/NA	Water	PrecSep_0	
180-88533-1	SGWC-6	Total/NA	Water	PrecSep_0	
180-88533-2	SGWC-16	Total/NA	Water	PrecSep_0	
180-88533-3	SGWC-17	Total/NA	Water	PrecSep_0	
180-88533-4	SGWC-18	Total/NA	Water	PrecSep_0	
180-88533-5	SGWC-19	Total/NA	Water	PrecSep_0	
180-88533-6	SGWC-20	Total/NA	Water	PrecSep_0	
180-88533-7	SGWC-21	Total/NA	Water	PrecSep_0	
MB 160-423242/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-423242/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-423242/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 423612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total/NA	Water	PrecSep-21	
180-88347-2	SGWA-5	Total/NA	Water	PrecSep-21	
180-88347-3	SGWA-25	Total/NA	Water	PrecSep-21	
180-88347-4	SGWA-3	Total/NA	Water	PrecSep-21	
180-88347-5	FD-1 (AP)	Total/NA	Water	PrecSep-21	
180-88347-6	FB-1 (AP)	Total/NA	Water	PrecSep-21	
180-88347-7	EB-1 (AP)	Total/NA	Water	PrecSep-21	
180-88347-8	SGWA-1	Total/NA	Water	PrecSep-21	
180-88347-9	SGWA-2	Total/NA	Water	PrecSep-21	
180-88347-10	SGWA-24	Total/NA	Water	PrecSep-21	
MB 160-423612/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-423612/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-423612/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 423844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-1	SGWA-4	Total/NA	Water	PrecSep_0	
180-88347-2	SGWA-5	Total/NA	Water	PrecSep_0	
180-88347-3	SGWA-25	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Scherer

Job ID: 180-88347-1
SDG: Ash Pond

Rad (Continued)

Prep Batch: 423844 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88347-4	SGWA-3	Total/NA	Water	PrecSep_0	
180-88347-5	FD-1 (AP)	Total/NA	Water	PrecSep_0	
180-88347-6	FB-1 (AP)	Total/NA	Water	PrecSep_0	
180-88347-7	EB-1 (AP)	Total/NA	Water	PrecSep_0	
180-88347-8	SGWA-1	Total/NA	Water	PrecSep_0	
180-88347-9	SGWA-2	Total/NA	Water	PrecSep_0	
180-88347-10	SGWA-24	Total/NA	Water	PrecSep_0	
MB 160-423844/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-423844/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-423844/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

TestAmerica Pittsburgh

301 Alpha Drive
 RIDC Park
 Pittsburgh, PA 15238-2907
 phone 412.963.7058 fax 412.963.2468

Chain of Custody Record

681-Atlanta



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: Dawn Prell		Site Contact: Karim Minkara		Date: 3/29/19		COC No:			
Joju Abraham		Tel/Fax: 248-536-5445		Lab Contact: Veronica Bortot		Carrier:		1 of 1 COCs			
Southern Company		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) 6020, 7470A: As, B, Ba, Be, Ca, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Ti Cl, F, SO4, TDS Radium 226 + 228				Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:			
241 Ralph McGill Blvd SE B10185		<input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below ___ 3-5 days ___									
Atlanta, GA 30308		<input type="checkbox"/> 2 weeks									
JAbraham@southernco.com		<input type="checkbox"/> 1 week									
Project Name: CCR - Plant Scherer Ash Pond		<input type="checkbox"/> 2 days									
Site: Georgia		<input type="checkbox"/> 1 day									
P O # 18019884											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	6020, 7470A: As, B, Ba, Be, Ca, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Ti	Cl, F, SO4, TDS	Radium 226 + 228	Sample Specific Notes:
SGWA-1	3/29/2019	9:16	G	Water	3			X	X	X	
SGWA-2	3/29/2019	10:07	G	Water	3			X	X	X	
SGWA-24	3/29/2019	09:25	G	Water	3			X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						4	1	4			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:			
Relinquished by: <i>Chris Travell</i>		Company: <i>TA</i>		Date/Time: <i>3-29-19 14:10</i>		Received by: <i>[Signature]</i>		Company: <i>TA</i>		Date/Time: <i>14:10</i>	
Relinquished by: <i>[Signature]</i>		Company: <i>TA</i>		Date/Time: <i>3/29/19</i>		Received by: <i>[Signature]</i>		Company: <i>TA</i>		Date/Time: <i>3/30/19 1000</i>	
Relinquished by: <i>[Signature]</i>		Company: <i>TA</i>		Date/Time: <i>16:10</i>		Received in Laboratory by: <i>[Signature]</i>		Company: <i>TA</i>		Date/Time: <i>3/30/19 1000</i>	

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5/10/2019



TestAmerica Pittsburgh

301 Alpha Drive
 RIDC Park
 Pittsburgh, PA 15238-2907
 phone 412.963.7058 fax 412.963.2468

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact Joju Abraham Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 JAbraham@southernco.com Project Name: CCR - Plant Scherer Ash Pond Site: Georgia P O # 18019884	Project Manager: Dawn Prell Tel/Fax: 248-536-5445	Site Contact: Karim Minkara Lab Contact: Veronica Bortot	Date: 4/1/2019 Carrier:	COC No: 3 of 4 COCs Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:
---	---	--	-----------------------------------	--

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	6020, 7470A: As, B, Ba, Be, Ca, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Tl	Cl, F, SO4, TDS	Radium 226 + 228	Sample Specific Notes:											
											Extra Radium											
SGWC-7	4/1/2019	11:56	G	Water	3		X	X	X													
SGWC-8	4/1/2019	10:47	G	Water	3		X	X	X													
SGWC-9	4/1/2019	11:20	G	Water	4		X	X	X													
SGWC-10	4/1/2019	17:50	G	Water	3		X	X	X													
SGWC-11	4/1/2019	11:25	G	Water	3		X	X	X													
SGWC-12	4/1/2019	12:40	G	Water	3		X	X	X													
SGWC-13	4/1/2019	13:40	G	Water	3		X	X	X													
SGWC-14	4/1/2019	14:55	G	Water	3		X	X	X													
SGWC-15	4/1/2019	16:25	G	Water	3		X	X	X													
EB-2 (AP)	4/1/2019	17:30	G	Water	3		X	X	X													
FB-2 (AP)	4/1/2019	10:50	G	Water	3		X	X	X													
FD-2 (AP)	4/1/2019	--	G	Water	3		X	X	X													
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4	1	4													



Possible Hazard Identification:
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C):	Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: <i>[Signature]</i>	Company: <i>Goldar</i>	Date/Time: <i>4-26/0758</i>	Received by: <i>Elaine Cook</i>	Company: <i>Courier Now</i>	Date/Time: <i>4/2/19 09:30</i>
Relinquished by: <i>Elaine Cook</i>	Company: <i>Com</i>	Date/Time: <i>4/2/19 09:31</i>	Received by: <i>[Signature]</i>	Company: <i>TR</i>	Date/Time: <i>09:30</i>
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Page 99 of 119

5/10/2019



4/3/19 111

TestAmerica Pittsburgh

301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238-2907
phone 412.963.7058 fax 412.963.2468

Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact Joju Abraham Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 JAbraham@southernco.com	Project Manager: Dawn Prell Tel/Fax: 248-536-5445	Site Contact: Karim Minkara Lab Contact: Veronica Bortot	Date: 4/2/2019 Carrier:	COC No. 4 of 4 COCs
Analysis Turnaround Time <input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below ___ 3-5 days ___ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	6020, 7470A: As, B, Ba, Be, Ca, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Tl	Cl, F, SO4, TDS	Radium 226 + 228	Sample Specific Notes:
SGWC-6	4/2/2019	9:12	G	Water	4		X	X	X		Extra Radium
SGWC-16	4/2/2019	10:34	G	Water	3		X	X	X		
SGWC-17	4/2/2019	11:34	G	Water	3		X	X	X		
SGWC-18	4/2/2019	9:00	G	Water	3		X	X	X		
SGWC-19	4/2/2019	10:20	G	Water	3		X	X	X		
SGWC-20	4/2/2019	11:10	G	Water	3		X	X	X		
SGWC-21	4/2/2019	9:05	G	Water	3		X	X	X		
SGWC-22	4/2/2019	9:50	G	Water	3		X	X	X		
SGWC-23	4/2/2019	11:05	G	Water	3		X	X	X		
FB-3 (AP)	4/2/2019	9:00	G	Water	3		X	X	X		
EB-3 (AP)	4/2/2019	12:00	G	Water	3		X	X	X		
FD-3 (AP)	4/2/2019	-	G	Water	3		X	X	X		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						4	1	4			



Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: Yes No

Custody Seal No.: _____ Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by: <i>Chris Tison</i>	Company: <i>Go-Order</i>	Date/Time: <i>4-3-19 10:30</i>	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: <i>10:30</i>
Relinquished by: <i>[Signature]</i>	Company: <i>YPA</i>	Date/Time: <i>4/3/19 16:00</i>	Received by: <i>[Signature]</i>	Company: <i>YPA</i>	Date/Time: <i>4-19</i>
Relinquished by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: _____	Received in Laboratory by: _____	Company: _____	Date/Time: <i>835</i>

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5/10/2019



merica

FR IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 McDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 29MAR19
ACTWT: 53.20 LB
CAD: 859116/CAFE3211

BILL RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE

PITTSBURGH PA 15238
(412) 963-7058
REF: GOLDR



1 of 3
TRK# 0201 **4651 0081 0450**
MASTER

SATURDAY 12:00P
PRIORITY OVERNIGHT

VO AGCA

Uncorrected temp
Thermometer ID

15238
PA-US **PIT**

CF 0 Initials TS

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



TestAmA
THE LEADER IN ENVIRONMENTAL TESTING

03:30

12:00

5

RT 639

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR ATLANTA
TEST AMERICA DRIVE
6500 MCDONOUGH DRIVE
NORCROSS, GA 30054
UNITED STATES US

SHIP DATE: 23MAY19
ACTWGT: 53.20 LB
CAD: 859116/CAFE3211

BILL RECEIPT

TO SAMPLE RECEIVING
TA PITTSBURGH
301 ALPHA DRIVE
PITTSBURGH PA 15238

(412) 963-7058
REF: GOLDR



SATURDAY 12:00P
PRIORITY OVERNIGHT

2 of 3
MPS# 4651 0081 0460
Mstr# 4651 0081 0450

XO AGCA

15238
PA-US
PIT

Uncorrected temp 3.1 °C
Thermometer ID 10

CF 0 Initials B



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

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
8500 McDONOUGH DRIVE

SHIP DATE: 23MAR19
ACTWGT: 53.20 LB
CAD: 859116/CAFE3211

NORCROSS, GA 30093
UNITED STATES US

BILL RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE

PITTSBURGH PA 15238

(412) 963-7068
REF: GOLDER



FedEx
Express



3 of 3
MPS# 4651 0081 0471
0263
Mstr# 4651 0081 0450

SATURDAY 12:00P
PRIORITY OVERNIGHT

0201

XO AGCA

15238
PA-US PIT

Uncorrected temp 4.8 °C
Thermometer ID 10
CF 0 Initials JS

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

159-434 RIT2 EXP 10/19

STANDARD OVERNIGHT Master 4651 0081 0894
TRACK: 4651 0081 0894

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



180-88428 Waybill

SHIP DATE: 02APR19
ACTWGT: 69.30 LB
CAD: 859116/CAFE3211

BILL RECIPIENT

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 McDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: SOUTHERN CO.



WED - 03 APR 3:00P
STANDARD OVERNIGHT

15238
PA-US
PIT

3 of 3
4651 0081 0909
0201

NA AGCA



1.2 °C
10
B

Uncorrected temp
Thermometer ID

CF 0 Initials

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

Part # 159-434 RIT2 EXP 10/19

TRACK: 4651 0081 0910

TestAmerica

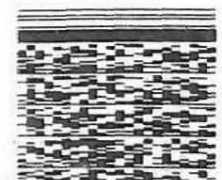
THE LEADER IN ENVIRONMENTAL TESTING

SHIP DATE: 02APR19
ACTWGT: 69.30 LB
CAD: 859116/CAFE3211

BILL RECIPIENT

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 McDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: SOUTHERN CO.



WED - 03 APR 3:00P
STANDARD OVERNIGHT

15238
PA-US
PIT

3 of 3
1651 0081 0910
0201

NA AGCA



2.1 °C
10
B

Uncorrected temp
Thermometer ID

CF 0 Initials

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

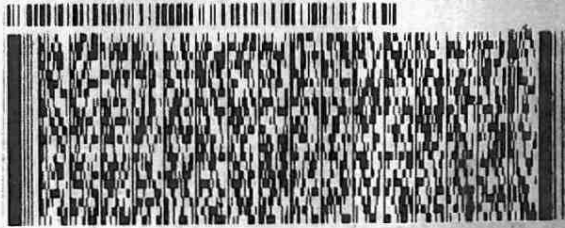
ORIGIN ID:MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE

SHIP DATE: 02APR19
ACTWT: 69.30 LB
CAD: 859116/CAFE3211

NORCROSS, GA 30093
UNITED STATES US

BILL RECEIPT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF: SOUTHERN CO.



1 of 3
TRK# 0201 4651 0081 0894
MASTER

WED - 03 APR 3:00P
STANDARD OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp
Thermometer ID

1.3 °C
10

CF 0 Initials B

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



STAND



180-88533 Waybill

Part # 159468-434 RT2 EXP 10/19

estAmerica

LEADER IN ENVIRONMENTAL TESTING

FORMULA (678) 966-9991
FLOR
ICA ATLANTA
BOUGH DRIVE

SHIP DATE: 03APR19
ACTWT: 61.35 LB
CAD: 859116/CAFE3211

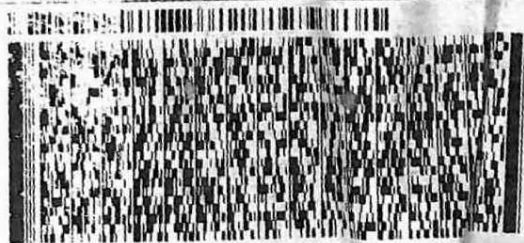
ATLANTA, GA 30093
UNITED STATES US

BILL RECIPIENT

10 **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 562-7058

REF. SOUTHERN CO



FedEx
Express



2 of 3

TH- 04 APR 3:00P
STAMRD OVERNIGHT

MPS# 0263 **4651 0081 0953**

Mstr# 4651 0081.0942 10201

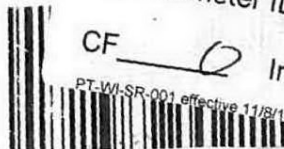
NA AGCA

PA-US PR

Uncorrected temp
Thermometer ID

15 °C

CF Q Initials TS



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

TRCK: 4651 0081 0964

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE

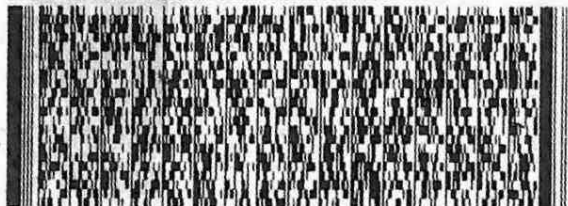
SHIP DATE: 03APR18
ACTWGT: 61.35 LB
CAD: 859116/CAFE3211

NORCROSS, GA 30093
UNITED STATES US

BILL RECEIPT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: SOUTHERN CO



3 of 3

THU - 04 APR 3 00P
STANDARD OVERNIGHT

MPS# 4651 0081 0964
0263

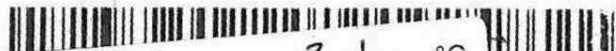
Mstr# 4651 0081 0942

0201

NA AGCA

15238

PA-US PIT



Uncorrected temp
Thermometer ID

3.1 °C
10

CF 0

Initials B

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

Svcs: STANDARD OVERNIGHT Master 4651 0081 0942
TRCK: 4651 0081 0942

cus
DATE
SIGN

Part # 159489-434 RIT2 EXP 10/19

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
692572

ORIGIN ID:MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCDONOUGH DRIVE

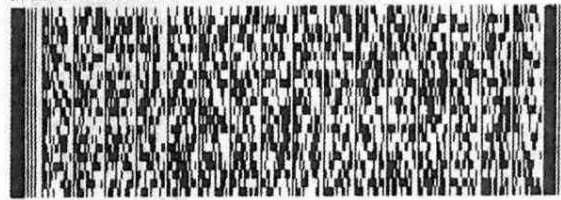
SHIP DATE: 03APR19
ACTWT: 47.80 LB
CAD: 859116/CAFE3211

NORCROSS, GA 30093
UNITED STATES US

BILL RECIPIENT

10 **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7068
REF: SOUTHERN CO



FedEx
Express



1 of 3
TRK# 4651 0081 0942
0201
MASTER

THU - 04 APR 3:00P
STANDARD OVERNIGHT

NA AGCA

15238
PA-US PIT



Uncorrected temp 1.3 °C
Thermometer ID 10

CF 0 Initials TS

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

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TestAmerica Pittsburgh

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

Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)				Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:					
Client Contact:				Phone:	Bortot, Veronica	180-358762.1						
Shipping/Receiving					E-Mail:	State of Origin:	Page:					
Company:					veronica.bortot@testamericainc.com	Florida	Page 1 of 2					
TestAmerica Laboratories, Inc.				Accreditations Required (See note):			Job #:					
Address:				Due Date Requested:			180-88347-1					
3355 McLemore Drive,				4/5/2019			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 - 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:				TAT Requested (days):								
Pensacola												
State, Zip:				PO #:								
FL, 32514												
Phone:				WO #:								
850-474-1001(Tel) 850-478-2671(Fax)												
Email:												
Project Name:				Project #:								
CCR - Plant Scherer				18019884								
Site:				SSOW#:								
CCR Plant Scherer												
Sample Identification - Client ID (Lab ID)	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)	7470A/7470A_Prep	6020/3005A Appendix III & IV	Total Number of containers	Special Instructions/Note:		
SGWA-4 (180-88347-1)	3/28/19	12:56 Eastern		Water		X	X		1			
SGWA-5 (180-88347-2)	3/28/19	13:45 Eastern		Water		X	X		1			
SGWA-25 (180-88347-3)	3/28/19	14:38 Eastern		Water		X	X		1			
SGWA-3 (180-88347-4)	3/28/19	14:40 Eastern		Water		X	X		1			
FD-1 (AP) (180-88347-5)	3/28/19	Eastern		Water		X	X		1			
FB-1 (AP) (180-88347-6)	3/28/19	13:40 Eastern		Water		X	X		1			
EB-1 (AP) (180-88347-7)	3/28/19	15:00 Eastern		Water		X	X		1			
SGWA-1 (180-88347-8)	3/29/19	09:16 Eastern		Water		X	X		1			
SGWA-2 (180-88347-9)	3/29/19	10:07 Eastern		Water		X	X		1			
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.												
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Unconfirmed					<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)					Primary Deliverable Rank: 2							
					Special Instructions/QC Requirements:							
Empty Kit Relinquished by:					Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>					Date/Time: 3/11/19 1700		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>			
					Date/Time:		Company:		Date/Time: 3.4.2.19 0859			
					Date/Time:		Company:		Date/Time:			
					Date/Time:		Company:		Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No.:					Cooler Temperature(s) °C and Other Remarks: 12.5°C, 13.5°C, 13.2°C 1R7		

Page 109 of 119

5/10/2019



TestAmerica Pittsburgh

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

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Bortot, Veronica		Carrier Tracking No(s):		COC No: 180-358762.2	
Client Contact: Shipping/Receiving		Phone:		E-Mail: veronica.bortot@testamericainc.com		State of Origin: Florida		Page: Page 2 of 2	
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note):				Job #: 180-88347-1	
Address: 3355 McLemore Drive,		Due Date Requested: 4/5/2019		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 - 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)	
City: Pensacola		TAT Requested (days):							
State, Zip: FL, 32514		PO #:		Field Filtered Sample (Yes or No)		Perform IIS/MSD (Yes or No)		Total Number of containers	
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		WO #:							
Project Name: CCR - Plant Scherer		Project #: 18019884		7470A7470A_Prep		6020/3005A Appendix III & IV			
Site: CCR Plant Scherer		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:			Special Instructions/Note:
SGWA-24 (180-88347-10)		3/29/19	09:25 Eastern		Water		X	X	1
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. 1									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					<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)			Primary Deliverable Rank: 2		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 4/1/19 1700		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date/Time: 4.2.19 0856089	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 12.5°, 13.5°, 13.2° IR7				

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5/10/2019



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88347

List Number: 1

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88347

List Number: 2

Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

List Creation: 04/02/19 01:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	12.5°C, 13.5°C, 13.2°C IR7
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88347

List Number: 3

Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis

List Creation: 04/02/19 02:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88428

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88428

List Number: 3

Creator: Shannon, Jonathon W

List Source: Eurofins TestAmerica, Pensacola

List Creation: 04/06/19 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C, 2.6°C, 3.2°C IR7
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88428

List Number: 2

Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis

List Creation: 04/06/19 09:18 AM

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.	N/A	
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	20.0
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88533

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88533

List Number: 3

Creator: Shannon, Jonathon W

List Source: Eurofins TestAmerica, Pensacola

List Creation: 04/06/19 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C, 2.6°C, 3.2°C IR7
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88347-1

SDG Number: Ash Pond

Login Number: 88533

List Number: 2

Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis

List Creation: 04/06/19 09:18 AM

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.	N/A	
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	20.0
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



APPENDIX A

FIELD DATA FORMS

February 2019

Product Name: Low-Flow System

Date: 2019-02-18 15:21:43

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID SGWA-1
Well diameter 2 in
Well Total Depth 53.4 ft
Screen Length 10 ft
Depth to Water 37.13 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.44 in
Total Volume Pumped 9.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:58:17	900.02	18.46	5.47	39.86	1.89	37.50	2.99	66.12
Last 5	15:03:17	1200.01	18.32	5.46	39.44	1.70	37.50	2.83	65.71
Last 5	15:08:18	1501.01	18.28	5.46	38.99	1.26	37.50	2.68	65.33
Last 5	15:13:18	1801.01	18.25	5.45	38.67	1.09	37.50	2.58	65.25
Last 5	15:18:18	2101.00	18.23	5.43	38.26	0.76	37.50	2.48	65.60
Variance 0			-0.05	-0.01	-0.46			-0.14	-0.39
Variance 1			-0.02	-0.01	-0.32			-0.10	-0.07
Variance 2			-0.02	-0.02	-0.41			-0.10	0.34

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-18 15:06:25

Project Information:

Operator Name J Quenneville
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model

Pump Information:

Pump Model/Type
Tubing Type
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWA-2
Well diameter 2 in
Well Total Depth 98.5 ft
Screen Length 10 ft
Depth to Water 36.05 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.35 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 10
Last 5	14:43:36	900.03	18.21	6.68	122.89	0.33	37.52	4.72	110.90
Last 5	14:48:36	1200.03	18.22	6.69	122.90	0.29	37.40	4.75	112.56
Last 5	14:53:36	1500.02	18.15	6.70	122.85	0.30	37.40	4.78	114.37
Last 5	14:58:36	1800.03	18.19	6.70	122.90	0.36	37.40	4.81	116.66
Last 5	15:03:36	2100.03	18.64	6.74	122.71	--	--	4.95	118.04
Variance 0			-0.07	0.01	-0.05			0.03	1.80
Variance 1			0.04	0.00	0.05			0.03	2.29
Variance 2			0.44	0.04	-0.19			0.14	1.38

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-19 09:37:52

Project Information:

Operator Name JFQ
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type QED Well
Tubing Type .17
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWA-3
Well diameter 2 in
Well Total Depth 52.8 ft
Screen Length 10 ft
Depth to Water 31.8 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 51.6 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:12:07	1200.03	16.40	5.70	82.94	0.24	35.50	4.28	112.76
Last 5	09:17:07	1500.02	16.42	5.71	82.49	0.33	35.90	4.05	114.90
Last 5	09:22:07	1800.03	16.52	5.75	82.50	0.48	36.00	4.08	115.30
Last 5	09:27:07	2100.03	15.99	5.68	82.54	0.21	36.02	4.16	121.52
Last 5	09:32:07	2400.03	16.16	5.69	82.73	0.17	36.10	4.22	123.30
Variance 0			0.10	0.04	0.00			0.03	0.40
Variance 1			-0.53	-0.07	0.05			0.07	6.22
Variance 2			0.17	0.02	0.19			0.06	1.78

Notes

Sampled at 0935

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-18 15:51:43

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 63.2 ft

Pump placement from TOC 58.2 ft

Well Information:

Well ID SGWA-4
Well diameter 2 in
Well Total Depth 63.2 ft
Screen Length 10 ft
Depth to Water 51.73 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7670884 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.14 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	15:28:01	300.10	17.43	6.45	182.05	1.94	52.42	8.03	75.07
Last 5	15:33:01	600.03	17.92	6.32	184.06	0.90	52.75	7.13	70.15
Last 5	15:38:01	900.03	17.90	6.26	184.63	0.49	52.83	6.63	68.88
Last 5	15:43:01	1200.04	17.92	6.25	184.11	0.73	52.81	6.31	68.68
Last 5	15:48:01	1500.04	17.79	6.28	183.72	0.31	52.87	6.09	68.83
Variance 0			-0.03	-0.06	0.57			-0.50	-1.28
Variance 1			0.02	-0.01	-0.52			-0.32	-0.20
Variance 2			-0.13	0.04	-0.39			-0.21	0.16

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-19 15:43:19

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length 32 ft

Pump placement from TOC 24.36 ft

Well Information:

Well ID SGWA-5
Well diameter 2 in
Well Total Depth 33.1 ft
Screen Length 10 ft
Depth to Water 15.61 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:20:27	1200.01	16.44	5.57	51.77	0.48	16.33	3.65	75.02
Last 5	15:25:27	1500.01	16.53	5.55	51.45	0.35	16.33	4.10	72.43
Last 5	15:30:27	1800.01	16.53	5.67	51.56	0.44	16.33	3.69	68.31
Last 5	15:35:27	2100.00	16.58	5.67	51.49	0.33	16.33	3.59	67.14
Last 5	15:40:27	2400.00	16.53	5.67	51.53	0.27	16.33	3.56	67.31
Variance 0			-0.01	0.12	0.11			-0.40	-4.12
Variance 1			0.05	0.00	-0.07			-0.10	-1.17
Variance 2			-0.04	-0.01	0.04			-0.03	0.16

Notes

Sampled @ 1540

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 09:45:28

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length 24 ft

Pump placement from TOC 19.21 ft

Well Information:

Well ID SGWC-6
Well diameter 2 in
Well Total Depth 27.6 ft
Screen Length 10 ft
Depth to Water 14.81 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.96 in
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:22:26	900.00	15.41	6.40	96.63	0.43	16.43	2.91	79.50
Last 5	09:27:26	1199.99	15.47	6.36	96.33	0.37	16.56	2.78	78.68
Last 5	09:32:26	1499.99	15.46	6.34	96.26	0.52	16.66	2.69	77.68
Last 5	09:37:26	1799.97	15.37	6.34	96.32	0.53	16.75	2.58	76.67
Last 5	09:42:26	2099.97	15.42	6.34	96.56	0.57	16.77	2.46	76.15
Variance 0			-0.02	-0.01	-0.06			-0.09	-1.00
Variance 1			-0.09	-0.00	0.06			-0.11	-1.02
Variance 2			0.05	-0.00	0.23			-0.13	-0.52

Notes

Sampled @ 0945

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 10:59:25

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length 35 ft

Pump placement from TOC 29.75 ft

Well Information:

Well ID SGWC-7
Well diameter 2 in
Well Total Depth 37.7 ft
Screen Length 10 ft
Depth to Water 14.18 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.17 in
Total Volume Pumped 5.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:37:32	900.00	16.56	6.43	303.17	3.21	14.35	0.78	82.05
Last 5	10:42:32	1199.99	16.70	6.43	302.02	2.21	14.35	0.68	79.45
Last 5	10:47:32	1499.98	16.67	6.42	300.38	1.34	14.35	0.61	78.03
Last 5	10:52:32	1799.97	16.64	6.40	299.90	0.98	14.35	0.54	75.69
Last 5	10:57:32	2099.97	16.70	6.40	298.36	0.77	14.35	0.49	73.42
Variance 0			-0.03	-0.01	-1.63			-0.07	-1.43
Variance 1			-0.03	-0.02	-0.49			-0.07	-2.34
Variance 2			0.06	-0.00	-1.54			-0.05	-2.27

Notes

Sampled @ 1100

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 12:08:20

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length 40 ft

Pump placement from TOC 34.2 ft

Well Information:

Well ID SGWC-8
Well diameter 2 in
Well Total Depth 42.6 ft
Screen Length 10 ft
Depth to Water 21.8 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 150 in
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:46:33	900.00	17.05	6.41	574.08	0.40	21.94	1.86	64.54
Last 5	11:51:33	1200.00	17.07	6.43	577.24	0.36	21.96	1.58	62.82
Last 5	11:56:33	1499.98	17.11	6.41	577.92	0.25	21.96	1.36	63.93
Last 5	12:01:33	1799.97	17.11	6.42	577.41	0.22	21.96	1.29	63.92
Last 5	12:06:33	2099.97	17.13	6.40	576.28	0.32	21.96	1.28	64.10
Variance 0			0.04	-0.02	0.68			-0.21	1.11
Variance 1			-0.00	0.00	-0.51			-0.07	-0.01
Variance 2			0.02	-0.02	-1.14			-0.01	0.19

Notes

Sampled @ 1208, Dup-2 collected

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-21 09:13:04

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length 26 ft

Pump placement from TOC 21.4 ft

Well Information:

Well ID SGWC-9
Well diameter 2 in
Well Total Depth 37.8 ft
Screen Length 10 ft
Depth to Water 19.85 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.58 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	08:50:56	300.15	16.44	6.18	787.65	0.79	20.43	1.27	101.96
Last 5	08:55:56	600.03	16.61	6.12	784.24	0.99	20.43	0.49	95.45
Last 5	09:00:56	900.02	16.62	6.11	782.35	0.68	20.43	0.30	91.62
Last 5	09:05:56	1200.02	16.74	6.10	779.34	0.84	20.43	0.25	89.11
Last 5	09:10:56	1500.02	16.80	6.10	778.77	0.55	20.43	0.22	87.79
Variance 0			0.01	-0.01	-1.89			-0.19	-3.83
Variance 1			0.12	-0.01	-3.01			-0.05	-2.50
Variance 2			0.06	-0.00	-0.57			-0.03	-1.33

Notes

Sampled @ 0913

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 15:26:27

Project Information:

Operator Name K. Coolman
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type 0.170
Tubing Diameter in
Tubing Length 29 ft

Pump placement from TOC 24.2 ft

Well Information:

Well ID SGWC-10
Well diameter 2 in
Well Total Depth 32.6 ft
Screen Length 10 ft
Depth to Water 16.68 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.06 in
Total Volume Pumped 15.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:03:25	4799.89	16.28	5.39	87.93	0.35	17.74	1.38	70.90
Last 5	15:08:25	5099.88	16.38	5.42	90.37	0.37	17.74	0.85	69.65
Last 5	15:13:25	5399.88	16.36	5.43	93.01	0.27	17.74	0.65	70.04
Last 5	15:18:25	5699.87	16.40	5.42	95.80	0.21	17.74	0.60	71.31
Last 5	15:23:25	5999.89	16.31	5.43	97.30	0.21	17.74	0.62	70.90
Variance 0			-0.02	0.01	2.64			-0.20	0.38
Variance 1			0.05	-0.00	2.80			-0.05	1.28
Variance 2			-0.09	0.01	1.50			0.02	-0.41

Notes

Sampled @ 1525

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 11:10:28

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 42.7 ft

Pump placement from TOC 37.7 ft

Well Information:

Well ID SGWC-11
Well diameter 2 in
Well Total Depth 42.7 ft
Screen Length 10 ft
Depth to Water 18.23 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.6755881 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.65 in
Total Volume Pumped 4.44 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:49:32	900.04	14.02	5.26	62.73	0.59	19.64	0.99	50.37
Last 5	10:54:32	1200.04	13.78	5.23	62.52	0.76	19.73	0.56	50.43
Last 5	10:59:32	1500.04	14.15	5.23	62.88	0.76	19.81	0.38	49.57
Last 5	11:04:32	1800.09	14.11	5.22	63.02	0.29	19.84	0.32	49.64
Last 5	11:09:32	2100.08	14.15	5.22	63.29	0.51	19.88	0.30	49.50
Variance 0			0.38	-0.00	0.36			-0.18	-0.85
Variance 1			-0.04	-0.01	0.14			-0.06	0.06
Variance 2			0.05	0.00	0.27			-0.02	-0.13

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 09:40:03

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 50.2 ft

Pump placement from TOC 45.2 ft

Well Information:

Well ID SGWC-12
Well diameter 2 in
Well Total Depth 50.2 ft
Screen Length 10 ft
Depth to Water 14.34 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.7090638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.95 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:16:39	300.08	16.47	6.06	308.66	5.69	15.70	1.65	44.44
Last 5	09:21:39	600.03	16.58	6.06	308.93	4.25	15.95	1.08	41.37
Last 5	09:26:39	900.04	16.63	6.07	307.30	4.18	16.20	0.58	40.94
Last 5	09:31:39	1200.04	16.52	6.06	307.19	2.66	16.26	0.42	40.70
Last 5	09:36:39	1500.04	16.48	6.07	307.49	1.93	16.29	0.33	39.57
Variance 0			0.04	0.00	-1.63			-0.50	-0.43
Variance 1			-0.11	-0.00	-0.12			-0.17	-0.23
Variance 2			-0.04	0.01	0.30			-0.08	-1.13

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 10:10:50

Project Information:

Operator Name JQ
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model

Pump Information:

Pump Model/Type QED well wizard
Tubing Type .17
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWC-13
Well diameter 2 in
Well Total Depth 37.5 ft
Screen Length 10 ft
Depth to Water 4.29 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.62 in
Total Volume Pumped 7.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:45:15	2400.03	16.26	5.97	287.81	0.94	5.95	0.78	138.87
Last 5	09:50:15	2700.03	16.29	5.97	289.96	0.71	5.96	0.70	140.10
Last 5	09:55:15	3000.03	16.32	5.97	292.28	0.63	5.91	0.64	141.60
Last 5	10:00:15	3300.03	16.25	5.96	293.87	0.41	5.95	0.54	143.26
Last 5	10:05:16	3601.04	16.34	5.97	294.39	--	5.91	0.47	144.34
Variance 0			0.03	-0.00	2.33			-0.06	1.50
Variance 1			-0.07	-0.01	1.59			-0.10	1.66
Variance 2			0.09	0.01	0.52			-0.07	1.09

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-21 09:25:43

Project Information:

Operator Name Travis Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type QED well wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 38.5 ft

Pump placement from TOC 33.5 ft

Well Information:

Well ID SGWC-14
Well diameter 2 in
Well Total Depth 38.5 ft
Screen Length 10 ft
Depth to Water 10.23 ft

Pumping Information:

Final Pumping Rate 240 mL/min
Total System Volume 0.6568418 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.07 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:05:03	300.08	14.90	5.66	493.25	0.69	10.30	1.08	43.96
Last 5	09:10:03	600.02	15.08	5.66	493.05	0.83	10.30	0.70	40.41
Last 5	09:15:03	900.02	15.07	5.67	491.66	0.98	10.30	0.62	34.80
Last 5	09:20:03	1200.02	15.15	5.64	492.02	1.22	10.30	0.58	30.90
Last 5	09:25:03	1500.02	14.90	5.65	493.11	1.06	10.30	0.47	27.89
Variance 0			-0.02	0.01	-1.39			-0.08	-5.62
Variance 1			0.08	-0.03	0.36			-0.04	-3.89
Variance 2			-0.25	0.00	1.08			-0.11	-3.01

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 11:40:48

Project Information:

Operator Name JQ
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model

Pump Information:

Pump Model/Type QED well wizar
Tubing Type .17
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWC-15
Well diameter 2 in
Well Total Depth 48.4 ft
Screen Length 10 ft
Depth to Water 27.1 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:16:43	1200.02	16.74	4.60	513.50	4.07	27.10	1.94	205.37
Last 5	11:21:43	1500.03	16.82	4.61	507.75	3.74	27.11	2.08	205.85
Last 5	11:26:43	1800.03	16.83	4.61	513.56	3.53	27.10	1.76	207.93
Last 5	11:31:47	2104.03	16.83	4.62	514.14	2.57	27.10	1.79	207.19
Last 5	11:36:47	2404.03	16.65	4.62	514.69	3.63	27.11	1.84	207.76
Variance 0			0.01	-0.01	5.81			-0.32	2.07
Variance 1			-0.00	0.01	0.58			0.03	-0.74
Variance 2			-0.18	0.00	0.55			0.05	0.57

Notes

Actual time at 1136 samples taken

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 13:10:25

Project Information:

Operator Name JQ
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type .17
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWC-16
Well diameter 2 in
Well Total Depth 43.3 ft
Screen Length 10 ft
Depth to Water 22.59 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 11.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:47:15	1500.03	16.65	5.23	127.41	8.28	22.68	3.24	164.83
Last 5	12:52:15	1800.03	16.78	5.25	127.28	6.49	22.70	3.10	164.26
Last 5	12:57:15	2100.02	16.74	5.26	127.59	4.74	22.69	3.07	162.61
Last 5	13:02:15	2400.03	16.75	5.24	127.76	4.25	22.70	3.17	163.28
Last 5	13:07:15	2700.03	16.68	5.23	127.63	3.06	22.70	3.17	163.21
Variance 0			-0.03	0.01	0.31			-0.03	-1.65
Variance 1			0.00	-0.02	0.17			0.10	0.67
Variance 2			-0.07	-0.00	-0.13			-0.01	-0.07

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 13:17:05

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 27.00 ft

Pump placement from TOC 22.00 ft

Well Information:

Well ID SGWC-17
Well diameter 2 in
Well Total Depth 27.00 ft
Screen Length 10 ft
Depth to Water 0.70 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.6055124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.4 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:55:46	600.04	13.74	6.28	556.16	2.33	1.04	1.09	42.74
Last 5	13:00:46	900.04	14.07	6.26	557.77	2.64	1.10	0.56	45.25
Last 5	13:05:46	1200.04	13.98	6.26	559.59	1.99	1.10	0.35	47.47
Last 5	13:10:46	1500.04	14.18	6.26	557.89	1.99	1.10	0.28	49.40
Last 5	13:15:46	1800.05	14.19	6.26	562.83	1.40	1.10	0.25	51.09
Variance 0			-0.09	-0.00	1.82			-0.21	2.22
Variance 1			0.20	0.00	-1.71			-0.08	1.92
Variance 2			0.01	-0.00	4.94			-0.03	1.69

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 14:19:50

Project Information:

Operator Name JQ
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type .17
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWA-18
Well diameter 2 in
Well Total Depth 47.6 ft
Screen Length 10 ft
Depth to Water 32.3 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:56:41	300.03	17.72	4.77	2229.42	0.48	32.60	3.03	212.29
Last 5	14:01:41	600.02	17.91	4.77	2222.23	1.25	32.59	2.65	211.98
Last 5	14:06:41	900.03	17.95	4.77	2219.78	1.40	32.60	2.27	212.11
Last 5	14:11:41	1200.03	17.90	4.76	2215.97	0.29	32.60	2.14	212.03
Last 5	14:16:41	1500.03	17.87	4.76	2201.94	0.47	32.56	2.28	211.76
Variance 0			0.04	-0.00	-2.46			-0.38	0.13
Variance 1			-0.05	-0.00	-3.81			-0.13	-0.08
Variance 2			-0.03	-0.00	-14.03			0.14	-0.28

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 15:57:44

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 37.4 ft

Pump placement from TOC 32.4 ft

Well Information:

Well ID SGWC-19
Well diameter 2 in
Well Total Depth 37.4 ft
Screen Length 10 ft
Depth to Water 14.99 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.651932 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.71 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	15:36:57	300.04	16.63	5.61	575.98	1.74	15.75	3.70	94.06
Last 5	15:41:57	600.04	16.63	5.59	575.04	0.81	15.62	3.61	92.71
Last 5	15:46:57	900.04	16.60	5.59	577.87	0.91	15.70	3.30	92.27
Last 5	15:51:57	1200.04	16.54	5.58	578.92	0.97	15.70	3.38	92.64
Last 5	15:56:58	1501.05	16.44	5.58	576.10	0.96	15.70	3.31	93.53
Variance 0			-0.03	-0.01	2.82			-0.30	-0.44
Variance 1			-0.06	-0.01	1.06			0.07	0.37
Variance 2			-0.09	0.00	-2.82			-0.07	0.89

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-20 14:28:33

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 27.90 ft

Pump placement from TOC 22.90 ft

Well Information:

Well ID SGWC-20
Well diameter 2 in
Well Total Depth 27.90 ft
Screen Length 10 ft
Depth to Water 12.74 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.6095295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.56 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:05:41	600.03	18.72	4.21	595.76	0.39	13.28	2.34	117.67
Last 5	14:10:41	900.04	18.68	4.22	595.33	0.50	13.25	2.78	116.20
Last 5	14:15:41	1200.04	18.93	4.23	594.45	0.60	13.26	1.61	119.88
Last 5	14:20:41	1500.04	18.99	4.25	591.67	0.20	13.29	1.48	119.36
Last 5	14:25:41	1800.05	18.59	4.26	592.63	0.58	13.30	1.47	122.13
Variance 0			0.26	0.01	-0.88			-1.17	3.68
Variance 1			0.06	0.01	-2.78			-0.13	-0.53
Variance 2			-0.40	0.01	0.96			-0.01	2.77

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-21 09:56:55

Project Information:

Operator Name JQ
Company Name
Project Name
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type .17
Tubing Diameter in
Tubing Length ft
Pump placement from TOC ft

Well Information:

Well ID SGWC-21
Well diameter 2 in
Well Total Depth 27.79 ft
Screen Length 10 ft
Depth to Water .3 ft

Pumping Information:

Final Pumping Rate 240 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.1 in
Total Volume Pumped 8.16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:34:02	300.05	17.63	6.06	446.22	2.14	0.40	1.27	113.88
Last 5	09:39:02	600.02	17.67	6.07	443.11	1.90	0.40	1.36	114.92
Last 5	09:44:02	900.05	17.72	6.07	444.75	1.66	0.40	1.31	117.42
Last 5	09:49:02	1200.03	17.76	6.08	426.14	1.95	0.40	1.22	120.38
Last 5	09:54:02	1500.03	17.86	6.08	436.63	1.97	0.40	1.13	125.23
Variance 0			0.06	0.00	1.64			-0.05	2.50
Variance 1			0.04	0.01	-18.61			-0.08	2.95
Variance 2			0.09	-0.00	10.49			-0.09	4.85

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-19 14:12:53

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 52.6 ft

Pump placement from TOC 47.6 ft

Well Information:

Well ID SGWC-22
Well diameter 2 in
Well Total Depth 52.6 ft
Screen Length 10 ft
Depth to Water 23.84 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.719776 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.86 in
Total Volume Pumped 5.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:50:20	1200.04	17.11	5.65	364.02	0.21	24.69	1.53	60.31
Last 5	13:55:21	1501.04	17.07	5.67	363.28	0.19	24.71	0.84	62.49
Last 5	14:00:23	1803.04	16.94	5.68	361.83	1.82	24.64	0.49	63.79
Last 5	14:05:23	2103.04	16.98	5.68	361.25	0.30	24.66	0.45	64.86
Last 5	14:10:23	2403.05	16.86	5.69	360.84	0.39	24.70	0.37	65.80
Variance 0			-0.13	0.01	-1.45			-0.35	1.30
Variance 1			0.04	0.01	-0.58			-0.04	1.07
Variance 2			-0.13	0.00	-0.41			-0.08	0.94

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-19 12:44:08

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 52.6 ft

Pump placement from TOC 47.6 ft

Well Information:

Well ID SGWC-23
Well diameter 2 in
Well Total Depth 52.60 ft
Screen Length 10 ft
Depth to Water 27.45 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.719776 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.11 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:21:33	300.03	16.49	5.98	350.56	0.07	27.66	2.95	32.46
Last 5	12:26:33	600.03	16.85	5.94	353.24	0.38	27.70	2.60	41.35
Last 5	12:31:33	900.03	16.95	5.91	350.82	0.08	27.70	2.37	47.00
Last 5	12:36:33	1200.04	17.03	5.90	349.00	0.10	27.64	2.28	50.81
Last 5	12:41:33	1500.04	17.05	5.90	346.19	0.15	27.56	2.39	53.88
Variance 0			0.10	-0.02	-2.41			-0.23	5.64
Variance 1			0.08	-0.01	-1.82			-0.09	3.81
Variance 2			0.02	-0.01	-2.81			0.11	3.07

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-19 09:48:46

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 42.9 ft

Pump placement from TOC 37.9 ft

Well Information:

Well ID SGWA-24
Well diameter 2 in
Well Total Depth 42.90 ft
Screen Length 10 ft
Depth to Water 13.70 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.6764808 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.4 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:27:43	300.11	14.83	6.40	146.45	1.87	14.08	4.26	69.42
Last 5	09:32:43	600.03	16.42	6.28	139.45	0.84	14.13	3.36	62.22
Last 5	09:37:43	900.03	16.52	6.28	144.18	1.02	14.18	3.07	58.37
Last 5	09:42:43	1200.03	16.54	6.27	144.09	1.10	14.14	3.29	58.21
Last 5	09:47:43	1500.04	16.64	6.29	144.09	0.91	14.10	3.11	57.09
Variance 0			0.10	0.00	4.73			-0.29	-3.85
Variance 1			0.02	-0.01	-0.09			0.22	-0.16
Variance 2			0.10	0.02	-0.01			-0.18	-1.12

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-19 11:37:24

Project Information:

Operator Name T. Martinez
Company Name Golder Associates
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter 0.170 in
Tubing Length 48.0 ft

Pump placement from TOC 43.0 ft

Well Information:

Well ID SGWA-25
Well diameter 2 in
Well Total Depth 48.0 ft
Screen Length 10 ft
Depth to Water 26.90 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.6992443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.17 in
Total Volume Pumped 7.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:15:58	2101.04	16.27	6.02	118.54	0.71	27.08	2.05	44.92
Last 5	11:20:58	2401.05	16.34	6.01	118.42	0.21	27.09	1.43	45.19
Last 5	11:25:58	2701.05	16.31	6.03	118.50	0.40	27.08	0.71	44.58
Last 5	11:30:58	3001.05	16.36	6.03	118.14	0.49	27.06	0.84	45.27
Last 5	11:35:58	3301.05	16.36	6.03	118.17	0.27	27.07	0.77	45.00
Variance 0			-0.03	0.02	0.08			-0.72	-0.61
Variance 1			0.04	-0.00	-0.35			0.13	0.69
Variance 2			0.00	0.00	0.02			-0.07	-0.27

Notes

Grab Samples

APPENDIX A

FIELD DATA FORMS

March/April 2019

Product Name: Low-Flow System

Date: 2019-03-29 09:19:13

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 44.6 ft

Well Information:

Well ID SGWA-1
Well diameter 2 in
Well Total Depth 43.4 ft
Screen Length 10 ft
Depth to Water 36.4 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.52 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	08:56:14	300.04	16.36	5.42	37.95	2.92	36.61	2.63	310.50
Last 5	09:01:14	600.02	16.85	5.21	36.28	2.20	36.62	1.56	298.20
Last 5	09:06:14	900.00	16.98	5.20	35.82	1.97	36.61	1.03	289.50
Last 5	09:11:15	1201.00	16.99	5.21	35.55	1.75	36.61	0.94	287.16
Last 5	09:16:15	1500.99	17.09	5.22	35.89	1.23	36.61	0.97	288.89
Variance 0			0.13	-0.01	-0.46			-0.53	-8.69
Variance 1			0.00	0.01	-0.27			-0.09	-2.34
Variance 2			0.10	0.01	0.33			0.03	1.72

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-29 10:10:55

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 91.05 ft

Well Information:

Well ID SGWA-2
Well diameter 2 in
Well Total Depth 98.5 ft
Screen Length 10 ft
Depth to Water 25.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 140.04 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:52:08	300.03	16.98	6.52	140.15	0.65	36.65	3.55	259.07
Last 5	09:57:08	600.01	17.16	6.73	140.06	1.67	37.09	4.90	268.69
Last 5	10:02:08	900.01	17.21	6.80	140.07	1.39	37.24	4.79	269.39
Last 5	10:07:08	1200.00	17.32	6.81	140.13	1.07	37.32	4.75	270.44
Last 5									
Variance 0			0.18	0.21	-0.09			1.35	9.62
Variance 1			0.05	0.07	0.01			-0.10	0.69
Variance 2			0.11	0.02	0.06			-0.05	1.05

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 14:46:06

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 44.7 ft

Pump placement from TOC 44.7 ft

Well Information:

Well ID SGWA-3
Well diameter 2 in
Well Total Depth 52.8 ft
Screen Length 10 ft
Depth to Water 31.70 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.684515 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 109 in
Total Volume Pumped 63 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:23:17	900.02	18.28	5.87	79.50	0.17	39.91	3.01	180.31
Last 5	14:28:17	1200.02	18.23	5.87	81.12	0.19	40.20	3.30	184.16
Last 5	14:33:17	1500.02	18.21	5.87	81.69	0.16	40.55	3.66	185.94
Last 5	14:38:17	1800.02	18.26	5.88	81.83	0.14	40.70	3.57	187.03
Last 5	14:43:17	2100.02	18.22	5.88	83.03	0.22	40.72	3.69	187.72
Variance 0			-0.02	0.00	0.57			0.36	1.78
Variance 1			0.04	0.01	0.14			-0.09	1.09
Variance 2			-0.04	-0.00	1.20			0.12	0.69

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 13:00:57

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 54.8 ft

Pump placement from TOC 54.8 ft

Well Information:

Well ID SGWA-4
Well diameter 2 in
Well Total Depth 63.2 ft
Screen Length 10 ft
Depth to Water 51.08 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 24.96 in
Total Volume Pumped 3.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:36:36	300.03	18.28	6.59	199.50	1.34	53.00	5.93	279.95
Last 5	12:41:36	600.01	18.41	6.54	197.83	1.90	53.15	5.63	278.20
Last 5	12:46:35	900.00	18.23	6.54	200.97	1.02	53.15	5.73	277.51
Last 5	12:51:35	1200.00	18.03	6.53	202.44	0.93	53.15	5.81	277.41
Last 5	12:56:35	1499.99	17.98	6.53	203.73	1.20	53.16	5.88	277.59
Variance 0			-0.17	-0.00	3.14			0.10	-0.68
Variance 1			-0.21	-0.00	1.47			0.08	-0.11
Variance 2			-0.05	0.00	1.29			0.07	0.18

Notes

FD-1 AP

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 13:49:20

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 24.36 ft

Pump placement from TOC 24.36 ft

Well Information:

Well ID SGWA-5
Well diameter 2 in
Well Total Depth 33.10 ft
Screen Length 10 ft
Depth to Water 15.04 ft

Pumping Information:

Final Pumping Rate 209 mL/min
Total System Volume 0.593729 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 46.68 in
Total Volume Pumped 5.23 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:24:54	300.08	17.84	5.75	52.46	0.40	19.92	3.47	133.01
Last 5	13:29:54	600.03	17.88	5.69	52.67	0.25	18.99	3.33	140.87
Last 5	13:34:54	900.02	17.86	5.68	52.51	0.29	18.97	3.41	149.42
Last 5	13:39:54	1200.02	17.83	5.68	52.37	0.14	18.89	3.43	157.49
Last 5	13:44:54	1500.02	17.85	5.67	52.32	0.11	18.90	3.39	165.24
Variance 0			-0.02	-0.01	-0.16			0.09	8.55
Variance 1			-0.03	-0.00	-0.14			0.02	8.07
Variance 2			0.02	-0.01	-0.04			-0.04	7.75

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 13:00:13

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 19.21 ft

Well Information:

Well ID SGWC-6
Well diameter 2 in
Well Total Depth 27.6 ft
Screen Length 10 ft
Depth to Water 14.61 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 14.6 in
Total Volume Pumped 5.46 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:35:05	600.00	17.46	6.50	107.27	0.74	16.71	3.50	166.80
Last 5	12:40:05	899.98	17.66	6.47	107.44	0.52	17.11	3.29	167.85
Last 5	12:45:05	1199.96	17.70	6.45	107.19	0.70	17.51	3.15	169.08
Last 5	12:50:05	1499.95	17.68	6.44	107.11	0.67	17.50	3.02	168.62
Last 5	12:55:05	1799.93	17.69	6.43	107.69	0.63	17.51	2.81	169.15
Variance 0			0.04	-0.02	-0.25			-0.14	1.23
Variance 1			-0.02	-0.01	-0.09			-0.13	-0.45
Variance 2			0.01	-0.01	0.59			-0.20	0.53

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 11:58:38

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 29.75 ft

Well Information:

Well ID SGWC-7
Well diameter 2 in
Well Total Depth 37.7 ft
Screen Length 10 ft
Depth to Water 13.98 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:36:37	599.99	17.55	6.64	338.30	1.27	14.18	2.47	87.93
Last 5	11:41:37	899.98	17.54	6.60	341.93	1.35	14.20	1.64	83.25
Last 5	11:46:37	1199.96	17.34	6.58	340.00	1.06	14.20	1.21	81.20
Last 5	11:51:37	1499.95	17.52	6.57	337.92	0.82	14.22	1.21	84.93
Last 5	11:56:37	1799.93	17.56	6.57	334.58	0.75	14.21	1.22	90.43
Variance 0			-0.19	-0.02	-1.93			-0.44	-2.05
Variance 1			0.18	-0.01	-2.08			0.00	3.73
Variance 2			0.04	-0.00	-3.34			0.01	5.49

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 10:48:58

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 34.2 ft

Well Information:

Well ID SGWC-8
Well diameter 2 in
Well Total Depth 42.6 ft
Screen Length 10 ft
Depth to Water 21.69 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:32:13	300.06	16.90	6.38	638.16	0.58	21.88	1.63	218.25
Last 5	10:37:13	599.99	17.12	6.40	644.55	0.69	21.89	1.43	215.01
Last 5	10:42:13	899.98	17.18	6.41	646.69	0.74	21.85	1.41	215.01
Last 5	10:47:13	1199.96	17.24	6.41	646.63	0.75	21.87	1.40	215.56
Last 5									
Variance 0			0.22	0.02	6.38			-0.20	-3.24
Variance 1			0.07	0.01	2.14			-0.03	0.00
Variance 2			0.06	0.00	-0.06			-0.01	0.54

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 11:23:42

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 29.4 ft

Pump placement from TOC 29.4 ft

Well Information:

Well ID SGWC-9
Well diameter 2 in
Well Total Depth 37.8 ft
Screen Length 10 ft
Depth to Water 19.74 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6162246 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.32 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:01:34	300.03	16.39	6.41	733.19	5.44	20.50	1.41	92.22
Last 5	11:06:34	600.02	16.79	6.22	727.54	3.69	20.54	1.12	87.17
Last 5	11:11:34	900.02	16.83	6.15	726.66	2.88	20.60	0.57	84.72
Last 5	11:16:34	1200.02	16.84	6.12	726.08	1.94	20.60	0.40	83.59
Last 5	11:21:34	1500.02	16.69	6.11	725.31	1.07	20.60	0.53	83.17
Variance 0			0.04	-0.08	-0.88			-0.55	-2.45
Variance 1			0.01	-0.03	-0.58			-0.17	-1.13
Variance 2			-0.14	-0.01	-0.77			0.13	-0.42

Notes

Sampled SGWC-9 at 1120. Extra radium

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 17:16:22

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 24.2 ft

Well Information:

Well ID SGWC-10
Well diameter 2 in
Well Total Depth 32.6 ft
Screen Length 10 ft
Depth to Water 16.38 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 28.44 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:49:28	2099.92	18.19	5.43	100.71	0.70	18.70	1.04	246.16
Last 5	16:54:28	2399.90	18.15	5.43	106.57	0.68	18.70	0.85	242.71
Last 5	16:59:33	2704.89	18.10	5.44	113.17	0.70	18.75	0.72	237.63
Last 5	17:04:33	3004.87	18.17	5.44	116.43	0.63	18.73	0.64	235.44
Last 5	17:09:33	3304.89	18.15	5.45	120.44	0.69	18.75	0.56	234.35
Variance 0			-0.05	0.01	6.60			-0.14	-5.08
Variance 1			0.07	0.00	3.26			-0.08	-2.18
Variance 2			-0.02	0.01	4.02			-0.08	-1.09

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 17:53:19

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 24.2 ft

Well Information:

Well ID SGWC-10
Well diameter 2 in
Well Total Depth 32.6 ft
Screen Length 10 ft
Depth to Water 16.38 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 29.64 in
Total Volume Pumped 17.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	17:22:32	300.04	18.32	5.45	126.70	0.72	18.81	0.44	230.55
Last 5	17:27:32	600.00	18.31	5.46	130.01	0.52	18.82	0.43	228.19
Last 5	17:40:19	1366.97	18.05	5.47	134.18	0.44	18.82	0.38	211.32
Last 5	17:45:19	1666.94	18.01	5.47	137.61	0.70	18.82	0.36	204.24
Last 5	17:50:19	1966.92	17.97	5.46	135.13	0.71	18.85	0.33	202.28
Variance 0			-0.26	0.01	4.17			-0.05	-16.88
Variance 1			-0.04	0.00	3.44			-0.02	-7.08
Variance 2			-0.04	-0.01	-2.48			-0.02	-1.96

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 11:31:43

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 34.3 ft

Pump placement from TOC 34.3 ft

Well Information:

Well ID SGWC-11
Well diameter 2 in
Well Total Depth 42.7 ft
Screen Length 10 ft
Depth to Water 18.92 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6380954 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 93.12 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:05:15	300.12	18.34	5.39	65.34	1.01	26.90	2.87	43.65
Last 5	11:10:15	600.02	18.21	5.29	62.11	0.61	26.70	1.35	34.61
Last 5	11:15:15	900.01	18.11	5.24	61.28	0.40	26.71	0.50	31.20
Last 5	11:20:15	1200.01	18.25	5.23	59.46	0.53	26.69	0.43	29.26
Last 5	11:25:15	1500.00	18.25	5.24	60.44	0.40	26.68	0.33	28.32
Variance 0			-0.10	-0.05	-0.83			-0.85	-3.41
Variance 1			0.14	-0.01	-1.82			-0.07	-1.94
Variance 2			-0.00	0.01	0.98			-0.10	-0.94

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 12:44:37

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 41.87 ft

Pump placement from TOC 41.87 ft

Well Information:

Well ID SGWC-12
Well diameter 2 in
Well Total Depth 50.20 ft
Screen Length 10 ft
Depth to Water 14.25 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6718835 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 66.84 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	12:22:02	1500.00	19.26	6.13	297.37	0.47	19.81	1.32	28.61
Last 5	12:27:02	1800.00	19.44	6.13	300.77	0.55	19.81	1.07	26.66
Last 5	12:32:02	2099.99	19.33	6.12	301.47	0.49	19.82	0.87	26.19
Last 5	12:37:02	2399.99	19.55	6.13	300.35	0.51	19.82	0.82	24.06
Last 5	12:42:02	2699.99	19.58	6.14	299.18	0.54	19.82	0.82	24.69
Variance 0			-0.12	-0.01	0.70			-0.20	-0.48
Variance 1			0.22	0.01	-1.12			-0.04	-2.12
Variance 2			0.04	0.01	-1.17			-0.01	0.63

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 13:41:38

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 29.0 ft

Pump placement from TOC 29.0 ft

Well Information:

Well ID SGWC-13
Well diameter 2 in
Well Total Depth 37.5 ft
Screen Length 10 ft
Depth to Water 4.12 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6144392 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 31.44 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:19:12	300.03	18.12	6.24	273.04	5.49	6.30	0.92	50.48
Last 5	13:24:12	600.02	18.26	6.16	272.11	1.68	6.65	0.62	51.12
Last 5	13:29:12	900.02	18.27	6.11	270.24	1.75	6.72	0.52	51.50
Last 5	13:34:12	1200.01	18.27	6.09	276.85	1.73	6.73	0.58	52.72
Last 5	13:39:12	1500.01	18.26	6.06	279.08	--	--	0.41	53.92
Variance 0			0.02	-0.05	-1.88			-0.10	0.38
Variance 1			-0.00	-0.03	6.61			0.06	1.22
Variance 2			-0.02	-0.03	2.23			-0.17	1.20

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 15:01:10

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 30.24 ft

Pump placement from TOC 30.24 ft

Well Information:

Well ID SGWC-14
Well diameter 2 in
Well Total Depth 38.5 ft
Screen Length 10 ft
Depth to Water 10.35 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6199739 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:38:05	300.04	16.67	6.29	469.13	22.95	10.50	0.56	48.97
Last 5	14:43:05	600.02	16.64	6.08	481.05	8.64	10.49	0.54	49.78
Last 5	14:48:05	900.02	16.57	5.96	484.60	10.11	10.50	0.44	50.30
Last 5	14:53:05	1200.00	16.56	5.92	487.03	4.79	10.49	0.45	50.39
Last 5	14:58:05	1500.01	16.51	5.89	486.53	4.66	10.50	0.45	50.45
Variance 0			-0.06	-0.12	3.55			-0.10	0.52
Variance 1			-0.02	-0.04	2.42			0.01	0.09
Variance 2			-0.04	-0.03	-0.50			-0.00	0.06

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 16:28:53

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 39.65 ft

Pump placement from TOC 39.65 ft

Well Information:

Well ID SGWC-15
Well diameter 2 in
Well Total Depth 48.2 ft
Screen Length 10 ft
Depth to Water 27.61 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6619747 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	16:05:49	2699.99	19.10	4.83	477.58	4.77	27.69	0.99	110.72
Last 5	16:10:49	2999.99	19.06	4.79	476.34	4.52	27.69	1.07	114.09
Last 5	16:15:49	3299.98	19.06	4.77	473.20	4.39	27.69	0.83	117.40
Last 5	16:20:49	3599.98	19.12	4.74	476.33	4.22	27.69	0.83	121.49
Last 5	16:25:49	3899.97	19.10	4.72	476.98	4.14	27.70	0.78	124.55
Variance 0			0.00	-0.03	-3.14			-0.24	3.31
Variance 1			0.06	-0.03	3.13			0.00	4.09
Variance 2			-0.02	-0.02	0.66			-0.05	3.06

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 10:38:33

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 34.62 ft

Well Information:

Well ID SGWC-16
Well diameter 2 in
Well Total Depth 43.3 ft
Screen Length 10 ft
Depth to Water 23.68 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:20:01	1247.42	16.81	5.26	142.87	7.85	23.82	2.57	237.79
Last 5	10:25:01	1547.38	16.78	5.26	142.56	4.34	23.81	2.56	237.03
Last 5	10:30:01	1847.36	16.76	5.26	142.69	3.80	23.82	2.56	236.53
Last 5	10:35:01	2147.35	16.76	5.27	142.80	2.62	23.80	2.56	236.46
Last 5									
Variance 0			-0.02	0.00	-0.31			-0.01	-0.76
Variance 1			-0.02	-0.00	0.14			0.01	-0.49
Variance 2			-0.00	0.00	0.11			-0.01	-0.07

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 11:37:57

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 19.24 ft

Well Information:

Well ID SGWC-17
Well diameter 2 in
Well Total Depth 27.6 ft
Screen Length 10 ft
Depth to Water .93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.04 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:24:44	1245.97	16.58	6.26	614.11	3.14	1.62	0.16	121.63
Last 5	11:29:44	1545.95	16.72	6.26	614.25	2.00	1.60	0.13	118.66
Last 5	11:34:44	1845.93	16.74	6.26	613.81	2.50	1.60	0.12	117.49
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.14	0.00	0.14			-0.03	-2.97
Variance 2			0.02	0.00	-0.44			-0.02	-1.17

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 09:02:29

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 39.20 ft

Pump placement from TOC 39.20 ft

Well Information:

Well ID SGWC-18
Well diameter 2 in
Well Total Depth 47.60 ft
Screen Length 10 ft
Depth to Water 32.83 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6599662 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.8 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	08:39:56	300.08	18.67	4.75	2174.57	1.35	33.40	1.52	130.83
Last 5	08:44:56	600.02	18.70	4.73	2173.17	1.45	33.40	1.48	123.19
Last 5	08:49:56	900.01	18.70	4.72	2168.86	1.31	33.38	1.47	119.33
Last 5	08:54:56	1200.01	18.70	4.72	2171.34	1.20	33.40	1.47	116.72
Last 5	08:59:56	1500.01	18.66	4.72	2169.56	0.97	33.40	1.46	115.19
Variance 0			0.00	-0.00	-4.31			-0.01	-3.86
Variance 1			-0.00	-0.00	2.48			0.00	-2.61
Variance 2			-0.04	0.00	-1.78			-0.01	-1.53

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 10:20:50

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 29.0 ft

Pump placement from TOC 29.0 ft

Well Information:

Well ID SGWC-19
Well diameter 2 in
Well Total Depth 37.40 ft
Screen Length 10 ft
Depth to Water 15.55 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6144392 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 17.4 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:58:32	300.03	18.06	5.56	550.31	0.70	17.10	3.55	68.33
Last 5	10:03:32	600.02	18.09	5.52	543.76	0.61	17.10	3.16	70.95
Last 5	10:08:32	900.02	18.08	5.50	556.03	0.59	17.01	3.07	71.88
Last 5	10:13:32	1200.01	18.28	5.50	555.91	0.80	17.02	2.97	72.44
Last 5	10:18:32	1500.01	18.43	5.50	553.59	1.23	17.00	2.97	72.68
Variance 0			-0.01	-0.02	12.27			-0.09	0.93
Variance 1			0.20	-0.00	-0.12			-0.10	0.55
Variance 2			0.16	0.00	-2.32			-0.00	0.25

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 11:14:31

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length 19.5 ft

Pump placement from TOC 19.5 ft

Well Information:

Well ID SGWC-20
Well diameter 2 in
Well Total Depth 27.9 ft
Screen Length 10 ft
Depth to Water 13.46 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5720367 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 38.9 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:50:45	300.03	20.49	4.23	576.75	0.24	16.29	1.54	87.09
Last 5	10:55:45	600.02	20.26	4.26	567.95	0.35	16.80	1.00	91.77
Last 5	11:00:45	900.01	20.12	4.28	571.85	0.56	16.68	0.78	95.10
Last 5	11:05:45	1200.01	20.07	4.30	564.92	0.25	16.73	0.60	96.98
Last 5	11:10:45	1500.01	20.26	4.33	560.76	0.39	16.70	0.46	98.85
Variance 0			-0.14	0.02	3.89			-0.22	3.34
Variance 1			-0.05	0.02	-6.93			-0.19	1.88
Variance 2			0.19	0.03	-4.16			-0.14	1.87

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 09:06:17

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 19.39 ft

Pump placement from TOC 19.39 ft

Well Information:

Well ID SGWC-21
Well diameter 2 in
Well Total Depth 27.79 ft
Screen Length 10 ft
Depth to Water 0.70 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.5715458 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	08:49:23	300.05	16.10	6.36	447.68	0.92	0.70	0.91	106.58
Last 5	08:54:23	600.02	16.38	6.12	444.44	0.86	0.70	0.53	100.65
Last 5	08:59:23	900.02	16.60	6.09	444.88	0.67	0.70	0.36	98.10
Last 5	09:04:23	1200.02	16.74	6.09	443.79	0.61	0.70	0.29	96.79
Last 5									
Variance 0			0.28	-0.24	-3.24			-0.38	-5.93
Variance 1			0.22	-0.03	0.44			-0.17	-2.55
Variance 2			0.13	-0.00	-1.09			-0.07	-1.31

Notes

Sampled SGWC-21 at 0905. FB-3 (AP) here

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 09:54:04

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 44.2 ft

Pump placement from TOC 44.2 ft

Well Information:

Well ID SGWC-22
Well diameter 2 in
Well Total Depth 52.6 ft
Screen Length 10 ft
Depth to Water 24.12 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.6822833 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 16.8 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:36:56	300.03	16.65	5.84	354.14	1.87	25.20	1.05	93.26
Last 5	09:41:56	600.02	16.83	5.66	358.73	1.95	25.40	0.51	95.01
Last 5	09:46:56	900.02	16.88	5.65	356.48	1.78	25.52	0.27	95.18
Last 5	09:51:56	1200.02	16.98	5.65	354.75	2.34	25.52	0.20	95.21
Last 5									
Variance 0			0.18	-0.18	4.59			-0.54	1.75
Variance 1			0.05	-0.01	-2.25			-0.23	0.17
Variance 2			0.11	0.01	-1.73			-0.07	0.03

Notes

Sampled SGWC-22 at 0950

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 11:07:44

Project Information:

Operator Name K. Minkara
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 44.25 ft

Pump placement from TOC 44.25 ft

Well Information:

Well ID SGWC-23
Well diameter 2 in
Well Total Depth 52.6 ft
Screen Length 10 ft
Depth to Water 27.47 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.6825064 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:45:54	1200.02	17.99	5.92	361.37	0.47	27.65	1.58	90.82
Last 5	10:50:54	1500.02	18.08	5.90	356.18	0.40	27.65	1.98	91.58
Last 5	10:55:54	1800.03	18.13	5.88	351.15	0.32	27.65	2.23	92.98
Last 5	11:00:54	2100.03	18.15	5.87	345.63	0.30	27.65	2.35	94.49
Last 5	11:05:54	2400.02	18.22	5.87	342.60	0.30	27.65	2.39	96.11
Variance 0			0.05	-0.02	-5.02			0.26	1.41
Variance 1			0.03	-0.01	-5.53			0.12	1.51
Variance 2			0.07	-0.00	-3.03			0.04	1.62

Notes

Sampled SGWC-23 at 1105

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-29 09:29:36

Project Information:

Operator Name C. Tidwell
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type Polyethylene
Tubing Diameter .170 in
Tubing Length 34.80 ft

Pump placement from TOC 34.8 ft

Well Information:

Well ID SGWA-24
Well diameter 2 in
Well Total Depth 42.90 ft
Screen Length 10 ft
Depth to Water 13.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6403272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11.76 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:06:19	300.06	17.19	6.42	136.54	8.84	15.05	2.16	81.72
Last 5	09:11:19	600.02	17.10	6.34	135.65	8.67	14.92	2.14	80.93
Last 5	09:16:19	900.02	17.19	6.29	135.49	9.70	14.90	2.07	82.02
Last 5	09:21:19	1200.02	17.09	6.30	135.08	5.34	14.90	2.04	81.09
Last 5	09:26:19	1500.02	17.05	6.31	135.14	4.60	14.91	1.96	80.39
Variance 0			0.09	-0.05	-0.16			-0.06	1.10
Variance 1			-0.09	0.01	-0.41			-0.04	-0.93
Variance 2			-0.04	0.01	0.06			-0.07	-0.70

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 14:40:38

Project Information:

Operator Name J. Quenneville
Company Name Golder
Project Name 166235018
Site Name Plant Scherer
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED Well Wizard
Tubing Type polyethylene
Tubing Diameter .170 in
Tubing Length ft

Pump placement from TOC 39.76 ft

Well Information:

Well ID SGWA-25
Well diameter 2 in
Well Total Depth 49 ft
Screen Length 10 ft
Depth to Water 26.75 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.485 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:18:13	600.02	18.36	6.16	127.44	8.65	26.99	0.73	488.74
Last 5	14:23:13	900.01	18.29	6.15	128.64	6.51	26.98	0.32	360.60
Last 5	14:28:13	1200.00	18.32	6.15	129.47	4.76	26.98	0.21	236.21
Last 5	14:33:12	1499.99	18.28	6.14	130.27	4.56	26.98	0.18	209.56
Last 5	14:38:12	1799.98	18.23	6.15	130.49	3.77	26.99	0.16	197.27
Variance 0			0.03	-0.00	0.83			-0.12	-124.38
Variance 1			-0.04	-0.00	0.80			-0.03	-26.66
Variance 2			-0.05	0.00	0.22			-0.02	-12.29

Notes

Grab Samples

APPENDIX A

DATA VALIDATION SUMMARIES

Quality Control Review of Analytical Data- Ash Pond AP-1 Submitted by Eurofins TestAmerica January-April 2019

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Eurofins TestAmerica, Inc. for groundwater samples collected at Plant Scherer CCR Ash Pond AP-1 between February 18, 2019 and April 2, 2019. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1. In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma- Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA Method 9315) and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0) and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017). In addition, Southern Company Services, Inc. provided data validation guidance. The review included an assessment of the results for completeness, precision (laboratory duplicates, matrix spike/matrix spike duplicates), accuracy (laboratory control samples and matrix spike samples), and blank contamination (including laboratory blanks). Additionally, sample procedures, holding times and chains-of-custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytic methodology, method-specific criteria or professional judgment was used.

DATA QUALITY OBJECTIVES

Laboratory Precision:	Laboratory goals for precision were met with the exception of boron in SDG 180-88347-1 as described in the qualifications sections below.
Field Precision:	Field goals for precision were met with the exception of FD-2 (AP) in SDG 180-88347-1 as described in the qualifications sections below.
Accuracy:	Laboratory goals for accuracy were met, with the exception of boron as described in the qualifications sections below.
Detection Limits:	Project goals for detection limits were met. Certain samples were diluted due to the concentration of the target analytes. Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.
Completeness:	There were no rejected analytical results for this event, resulting in a completion of 100%.

Holding Times: All holding time requirements were met with the exception of total dissolved solids (TDS) in SDG 180-88347-1.

QUALIFICATIONS

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

- J** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- J-** The analyte was reported above the method detection limit; however, the concentration reported is an estimated value that may be biased low.
- U** The analyte was not detected above the method detection limit.
- UJ** The analyte was not detected above the method detection limit; the associated method detection limit is approximate and may be inaccurate.

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

- Certain TDS results in SDG 180-88347-1 were qualified as estimated (J) since they were analyzed outside of hold time.
- Certain boron results in SDG 180-88347-1 were qualified as estimated biased low (J-) as the associated MS and/or MSD recoveries were below the QC criteria and above 10%. The RPD for boron in the associated MS/MSD also exceeded laboratory goals for precision.
- The non-detect boron result for SGWC-6 in SDG 180-88347-1 was qualified as estimated (UJ) as the associated MS and/or MSD recovered below the QC criteria and above 10%. The RPD for boron in the associated MS/MSD also exceeded laboratory goals for precision.
- Certain TDS results in SDG 180-88347-1 were qualified as non-detect (UJ) as the parent sample and field duplicate exceeded field goal precision criteria.
- Certain barium, lithium, selenium, and sulfate results in SDGs 180-86907-1, 180-86954-1, and 180-88347-1 were qualified as non-detect (U) when the analyte was detected at a similar level in an associated blank sample. As shown in Table 2, when the original sample result was below the RL, the method detection limit was raised to the sample result as part of the qualification process. When the original sample result was above the RL, both the MDL and the RL were raised to the sample result as part of the qualification process.
- Certain radium-228 and total radium results in SDGs 180-86954-2 were qualified as non-detect (U) when radium-228 was detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the qualification process.

Golder reviewed the data from samples collected at Plant Scherer CCR Ash Pond AP-1 between February 18, 2019 and April 2, 2019 in accordance with the analytical methods, the laboratory specific QC criteria, and the guidelines. As described above, 100% of the results were acceptable for project use.

REFERENCE

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data By Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy*, Revision 2.0.

USEPA, January 2017, National, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Revision 0.0.

TABLE 1
Sample Summary Table
Plant Scherer Ash Pond AP-1

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						TAL Metals +Hg (6020, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium 226, Radium 228 (9315, 9320)
180-86907-1/2	SGWA-1	2/18/2019	180-86907-1	GW	-	X	X	X	X
180-86907-1/2	SGWA-2	2/18/2019	180-86907-2	GW	-	X	X	X	X
180-86907-1/2	SGWA-4	2/18/2019	180-86907-3	GW	-	X	X	X	X
180-86907-1/2	FB-1	2/18/2019	180-86907-4	GW	FB	X	X	X	X
180-86907-1/2	SGWA-3	2/19/2019	180-86907-5	GW	-	X	X	X	X
180-86907-1/2	SGWA-5	2/19/2019	180-86907-6	GW	-	X	X	X	X
180-86907-1/2	SGWA-24	2/19/2019	180-86907-7	GW	-	X	X	X	X
180-86907-1/2	SGWA-25	2/19/2019	180-86907-8	GW	-	X	X	X	X
180-86907-1/2	SGWC-22	2/19/2019	180-86907-9	GW	-	X	X	X	X
180-86907-1/2	SGWC-23	2/19/2019	180-86907-10	GW	-	X	X	X	X
180-86907-1/2	EB-1	2/19/2019	180-86907-11	GW	EB	X	X	X	X
180-86907-1/2	DUP-1	2/19/2019	180-86907-12	GW	FD (SGWC-22)	X	X	X	X
180-86954-1/2	SGWC-6	2/20/2019	180-86954-1	GW	-	X	X	X	X
180-86954-1/2	SGWC-7	2/20/2019	180-86954-2	GW	-	X	X	X	X
180-86954-1/2	SGWC-8	2/20/2019	180-86954-3	GW	-	X	X	X	X
180-86954-1/2	SGWC-9	2/20/2019	180-86954-4	GW	-	X	X	X	X
180-86954-1/2	SGWC-10	2/20/2019	180-86954-5	GW	-	X	X	X	X
180-86954-1/2	SGWC-11	2/20/2019	180-86954-6	GW	-	X	X	X	X
180-86954-1/2	SGWC-12	2/20/2019	180-86954-7	GW	-	X	X	X	X
180-86954-1/2	SGWC-13	2/20/2019	180-86954-8	GW	-	X	X	X	X
180-86954-1/2	SGWC-14	2/20/2019	180-86954-9	GW	-	X	X	X	X
180-86954-1/2	FB-2	2/20/2019	180-86954-10	WQ	FB	X	X	X	X
180-86954-1/2	EB-2	2/20/2019	180-86954-11	WQ	EB	X	X	X	X
180-86954-1/2	DUP-2	2/20/2019	180-86954-12	GW	FD (SGWC-8)	X	X	X	X
180-86954-1/2	SGWC-15	2/20/2019	180-86954-13	GW	-	X	X	X	X
180-86954-1/2	SGWC-16	2/20/2019	180-86954-14	GW	-	X	X	X	X
180-86954-1/2	SGWC-17	2/20/2019	180-86954-15	GW	-	X	X	X	X
180-86954-1/2	SGWC-18	2/20/2019	180-86954-16	GW	-	X	X	X	X
180-86954-1/2	SGWC-19	2/20/2019	180-86954-17	GW	-	X	X	X	X
180-86954-1/2	SGWC-20	2/20/2019	180-86954-18	GW	-	X	X	X	X
180-86954-1/2	SGWC-21	2/20/2019	180-86954-19	GW	-	X	X	X	X
180-86954-1/2	FB-3	2/20/2019	180-86954-20	WQ	FB	X	X	X	X
180-86954-1/2	EB-3	2/20/2019	180-86954-21	WQ	EB	X	X	X	X
180-86954-1/2	DUP-3	2/20/2019	180-86954-22	GW	FD (SGWC-19)	X	X	X	X
180-88347-1/2	SGWA-4	3/28/2019	180-88347-1	GW	-	X	X	X	X
180-88347-1/2	SGWA-5	3/28/2019	180-88347-2	GW	-	X	X	X	X
180-88347-1/2	SGWA-25	3/28/2019	180-88347-3	GW	-	X	X	X	X
180-88347-1/2	SGWA-3	3/28/2019	180-88347-4	GW	-	X	X	X	X
180-88347-1/2	FD-1 (AP)	3/28/2019	180-88347-5	GW	FD (SGWA-4)	X	X	X	X
180-88347-1/2	FB-1 (AP)	3/28/2019	180-88347-6	WQ	FB	X	X	X	X
180-88347-1/2	EB-1 (AP)	3/28/2019	180-88347-7	WQ	EB	X	X	X	X
180-88347-1/2	SGWA-1	3/29/2019	180-88347-8	GW	-	X	X	X	X
180-88347-1/2	SGWA-2	3/29/2019	180-88347-9	GW	-	X	X	X	X
180-88347-1/2	SGWA-24	3/29/2019	180-88347-10	GW	-	X	X	X	X
180-88347-1/2	SGWC-7	4/1/2019	180-88428-1	GW	-	X	X	X	X
180-88347-1/2	SGWC-8	4/1/2019	180-88428-2	GW	-	X	X	X	X
180-88347-1/2	SGWC-9	4/1/2019	180-88428-3	GW	-	X	X	X	X
180-88347-1/2	SGWC-10	4/1/2019	180-88428-4	GW	-	X	X	X	X
180-88347-1/2	SGWC-11	4/1/2019	180-88428-5	GW	-	X	X	X	X
180-88347-1/2	SGWC-12	4/1/2019	180-88428-6	GW	-	X	X	X	X
180-88347-1/2	SGWC-13	4/1/2019	180-88428-7	GW	-	X	X	X	X
180-88347-1/2	SGWC-14	4/1/2019	180-88428-8	GW	-	X	X	X	X

Abbreviations:

- EB - Equipment blank
- FB - Field blank
- FD - Field duplicate
- GW - Groundwater
- TAL - Target analyte list
- TDS - Total dissolved solids
- WQ - Water quality control
- QC - Quality control
- SDG- Sample delivery group
- Hg - Mercury

TABLE 1
Sample Summary Table
Plant Scherer Ash Pond AP-1

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						TAL Metals +Hg (6020, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium 226, Radium 228 (9315, 9320)
180-88347-1/2	SGWC-15	4/1/2019	180-88428-9	GW	-	X	X	X	X
180-88347-1/2	EB-2 (AP)	4/1/2019	180-88428-10	WQ	EB	X	X	X	X
180-88347-1/2	FB-2 (AP)	4/1/2019	180-88428-11	WQ	FB	X	X	X	X
180-88347-1/2	FD-2 (AP)	4/1/2019	180-88428-12	GW	FD (SGWC-11)	X	X	X	X
180-88347-1/2	SGWC-6	4/2/2019	180-88533-1	GW	-	X	X	X	X
180-88347-1/2	SGWC-16	4/2/2019	180-88533-2	GW	-	X	X	X	X
180-88347-1/2	SGWC-17	4/2/2019	180-88533-3	GW	-	X	X	X	X
180-88347-1/2	SGWC-18	4/2/2019	180-88533-4	GW	-	X	X	X	X
180-88347-1/2	SGWC-19	4/2/2019	180-88533-5	GW	-	X	X	X	X
180-88347-1/2	SGWC-20	4/2/2019	180-88533-6	GW	-	X	X	X	X
180-88347-1/2	SGWC-21	4/2/2019	180-88533-7	GW	-	X	X	X	X
180-88347-1/2	SGWC-22	4/2/2019	180-88533-8	GW	-	X	X	X	X
180-88347-1/2	SGWC-23	4/2/2019	180-88533-9	GW	-	X	X	X	X
180-88347-1/2	FB-3 (AP)	4/2/2019	180-88533-10	WQ	FB	X	X	X	X
180-88347-1/2	EB-3 (AP)	4/2/2019	180-88533-11	WQ	EB	X	X	X	X
180-88347-1/2	FD-3 (AP)	4/2/2019	180-88533-12	GW	FD (SGWC-18)	X	X	X	X

Abbreviations:

EB - Equipment blank	QC - Quality control
FB - Field blank	SDG- Sample delivery group
FD - Field duplicate	Hg - Mercury
GW - Groundwater	
TAL - Target analyte list	
TDS - Total dissolved solids	
WQ - Water quality control	

TABLE 2
Qualifier Summary Table
Plant Scherer Ash Pond AP-1

SDG	Sample Name	Constituent	New RL	New MDL or MDC	Qualifier	Reason
180-86907-1	SGWA-2	Selenium	-	0.00017	U	Blank detection
180-86907-1	SGWA-3	Selenium	-	0.00012	U	Blank detection
180-86907-1	SGWC-23	Selenium	-	0.00021	U	Blank detection
180-86954-1	SGWC-17	Barium	0.023	0.023	U	Blank detection
180-86954-2	SGWC-7	Radium-228	-	0.367	U	Blank detection
180-86954-2	SGWC-7	Total Radium	-	0.433	U	Blank detection
180-86954-2	SGWC-9	Radium-228	-	0.385	U	Blank detection
180-86954-2	SGWC-9	Total Radium	-	0.425	U	Blank detection
180-86954-2	SGWC-11	Radium-228	-	0.632	U	Blank detection
180-86954-2	SGWC-11	Total Radium	-	0.708	U	Blank detection
180-86954-2	SGWC-15	Radium-228	-	0.552	U	Blank detection
180-86954-2	SGWC-15	Total Radium	-	0.573	U	Blank detection
180-86954-2	SGWC-20	Radium-228	-	0.341	U	Blank detection
180-86954-2	SGWC-20	Total Radium	-	0.353	U	Blank detection
180-88347-1	SGWC-6	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-16	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-17	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-18	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-19	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-20	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-21	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-22	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-23	TDS	-	-	J	Analyzed outside hold time
180-88347-1	FD-3 (AP)	TDS	-	-	J	Analyzed outside hold time
180-88347-1	SGWC-6	Sulfate	1.3	1.3	U	Blank detection
180-88347-1	SGWC-18	Lithium	-	0.0041	U	Blank detection
180-88347-1	SGWC-19	Lithium	-	0.0021	U	Blank detection
180-88347-1	SGWC-20	Lithium	-	0.0046	U	Blank detection
180-88347-1	SGWC-21	Lithium	-	0.0027	U	Blank detection
180-88347-1	SGWC-22	Lithium	-	0.0026	U	Blank detection
180-88347-1	SGWC-23	Lithium	-	0.0041	U	Blank detection
180-88347-1	FD-3 (AP)	Lithium	-	0.0046	U	Blank detection
180-88347-1	SGWC-6	Boron	-	-	UJ	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-16	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-17	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-18	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-19	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-20	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-21	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-22	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-23	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	FD-3 (AP)	Boron	-	-	J-	MS and/or MSD recovery below QC criteria and RPD outside acceptable range
180-88347-1	SGWC-11	TDS	-	-	J	Sample exceeds RPD field goals for precision
180-88347-1	FD-2 (AP)	TDS	-	-	UJ	Sample exceeds RPD field goals for precision

Abbreviations:

MDC: Minimum detectable concentration
 MS/MSD: Matrix spike / matrix spike duplicate
 MDL: Method detection limit
 RL : Reporting limit
 SDG : Sample delivery group
 RPD: Relative percent difference

Qualifiers:

J+ : Estimated result, biased high
 J-: Estimated result, biased low
 J: Estimated result
 U : Non-detect result
 UJ : Non-detect result, estimated

APPENDIX B

STATISTICAL ANALYSES

APPENDIX B STATISTICAL ANALYSES

**Appendix III Prediction Limits &
Time Series Plots**

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	SGWC-10	0.0109	n/a	4/1/2019	0.16	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-11	0.0109	n/a	4/1/2019	0.46	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-13	0.0109	n/a	4/1/2019	0.57	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-14	0.0109	n/a	4/1/2019	1.7	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-15	0.0109	n/a	4/1/2019	1.6	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-16	0.0109	n/a	4/2/2019	0.53	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-17	0.0109	n/a	4/2/2019	0.32	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-18	0.0109	n/a	4/2/2019	5.3	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-19	0.0109	n/a	4/2/2019	2	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-20	0.0109	n/a	4/2/2019	2	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-21	0.0109	n/a	4/2/2019	1.2	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-22	0.0109	n/a	4/2/2019	0.44	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-23	0.0109	n/a	4/2/2019	0.52	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-8	0.0109	n/a	4/1/2019	0.076	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-9	0.0109	n/a	4/1/2019	1.7	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Calcium (mg/L)	SGWC-12	19	n/a	4/1/2019	20	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-14	19	n/a	4/1/2019	39	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-17	19	n/a	4/2/2019	46	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-18	19	n/a	4/2/2019	89	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-19	19	n/a	4/2/2019	38	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-21	19	n/a	4/2/2019	27	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-22	19	n/a	4/2/2019	26	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-23	19	n/a	4/2/2019	23	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-8	19	n/a	4/1/2019	45	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-9	19	n/a	4/1/2019	50	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	SGWC-10	3.152	n/a	4/1/2019	7.8	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-11	3.152	n/a	4/1/2019	7.4	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-12	3.152	n/a	4/1/2019	9	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-13	3.152	n/a	4/1/2019	7.7	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-14	3.152	n/a	4/1/2019	9.9	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-15	3.152	n/a	4/1/2019	9.2	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-16	3.152	n/a	4/2/2019	8.2	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-17	3.152	n/a	4/2/2019	8.2	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-18	3.152	n/a	4/2/2019	15	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-19	3.152	n/a	4/2/2019	7.3	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-20	3.152	n/a	4/2/2019	11	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-21	3.152	n/a	4/2/2019	9.3	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-22	3.152	n/a	4/2/2019	10	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-23	3.152	n/a	4/2/2019	8.9	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-7	3.152	n/a	4/1/2019	4.6	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-8	3.152	n/a	4/1/2019	10	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-9	3.152	n/a	4/1/2019	13	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Fluoride (mg/L)	SGWC-8	0.108	n/a	4/1/2019	0.21	Yes	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
pH (S.U.)	SGWC-15	6.87	5.21	4/1/2019	4.72	Yes	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-18	6.87	5.21	4/2/2019	4.72	Yes	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-20	6.87	5.21	4/2/2019	4.33	Yes	82	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	SGWC-10	3.75	n/a	4/1/2019	21	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-12	3.75	n/a	4/1/2019	48	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-13	3.75	n/a	4/1/2019	82	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-14	3.75	n/a	4/1/2019	180	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	SGWC-15	3.75	n/a	4/1/2019	190	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-16	3.75	n/a	4/2/2019	31	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-17	3.75	n/a	4/2/2019	180	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-18	3.75	n/a	4/2/2019	1100	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-19	3.75	n/a	4/2/2019	240	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-20	3.75	n/a	4/2/2019	220	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-21	3.75	n/a	4/2/2019	92	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-22	3.75	n/a	4/2/2019	100	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-23	3.75	n/a	4/2/2019	95	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-7	3.75	n/a	4/1/2019	16	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-8	3.75	n/a	4/1/2019	67	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-9	3.75	n/a	4/1/2019	310	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	SGWC-12	130	n/a	4/1/2019	200	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-13	130	n/a	4/1/2019	190	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-14	130	n/a	4/1/2019	330	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-15	130	n/a	4/1/2019	330	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-17	130	n/a	4/2/2019	400	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-18	130	n/a	4/2/2019	1700	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-19	130	n/a	4/2/2019	420	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-20	130	n/a	4/2/2019	370	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-21	130	n/a	4/2/2019	300	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-22	130	n/a	4/2/2019	240	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-23	130	n/a	4/2/2019	250	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-7	130	n/a	4/1/2019	200	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-8	130	n/a	4/1/2019	370	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-9	130	n/a	4/1/2019	580	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	SGWC-10	0.0109	n/a	4/1/2019	0.16	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-11	0.0109	n/a	4/1/2019	0.46	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-12	0.0109	n/a	4/1/2019	0.0105ND	No	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-13	0.0109	n/a	4/1/2019	0.57	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-14	0.0109	n/a	4/1/2019	1.7	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-15	0.0109	n/a	4/1/2019	1.6	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-16	0.0109	n/a	4/2/2019	0.53	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-17	0.0109	n/a	4/2/2019	0.32	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-18	0.0109	n/a	4/2/2019	5.3	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-19	0.0109	n/a	4/2/2019	2	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-20	0.0109	n/a	4/2/2019	2	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-21	0.0109	n/a	4/2/2019	1.2	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-22	0.0109	n/a	4/2/2019	0.44	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-23	0.0109	n/a	4/2/2019	0.52	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-6	0.0109	n/a	4/2/2019	0.0105ND	No	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-7	0.0109	n/a	4/1/2019	0.025	No	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-8	0.0109	n/a	4/1/2019	0.076	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Boron (mg/L)	SGWC-9	0.0109	n/a	4/1/2019	1.7	Yes	84	96.43	n/a	0.00027	NP Inter (NDs) 1 of 2
Calcium (mg/L)	SGWC-10	19	n/a	4/1/2019	4.2	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-11	19	n/a	4/1/2019	1.7	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-12	19	n/a	4/1/2019	20	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-13	19	n/a	4/1/2019	17	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-14	19	n/a	4/1/2019	39	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-15	19	n/a	4/1/2019	16	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-16	19	n/a	4/2/2019	0.92	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-17	19	n/a	4/2/2019	46	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-18	19	n/a	4/2/2019	89	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-19	19	n/a	4/2/2019	38	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-20	19	n/a	4/2/2019	14	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-21	19	n/a	4/2/2019	27	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-22	19	n/a	4/2/2019	26	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-23	19	n/a	4/2/2019	23	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-6	19	n/a	4/2/2019	6.7	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-7	19	n/a	4/1/2019	18	No	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-8	19	n/a	4/1/2019	45	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	SGWC-9	19	n/a	4/1/2019	50	Yes	81	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	SGWC-10	3.152	n/a	4/1/2019	7.8	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-11	3.152	n/a	4/1/2019	7.4	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-12	3.152	n/a	4/1/2019	9	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-13	3.152	n/a	4/1/2019	7.7	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-14	3.152	n/a	4/1/2019	9.9	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-15	3.152	n/a	4/1/2019	9.2	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-16	3.152	n/a	4/2/2019	8.2	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-17	3.152	n/a	4/2/2019	8.2	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-18	3.152	n/a	4/2/2019	15	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-19	3.152	n/a	4/2/2019	7.3	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-20	3.152	n/a	4/2/2019	11	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-21	3.152	n/a	4/2/2019	9.3	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-22	3.152	n/a	4/2/2019	10	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-23	3.152	n/a	4/2/2019	8.9	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2

Prediction Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	SGWC-6	3.152	n/a	4/2/2019	2	No	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-7	3.152	n/a	4/1/2019	4.6	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-8	3.152	n/a	4/1/2019	10	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Chloride (mg/L)	SGWC-9	3.152	n/a	4/1/2019	13	Yes	82	0	ln(x)	0.000418	Param Inter 1 of 2
Fluoride (mg/L)	SGWC-10	0.108	n/a	4/1/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-11	0.108	n/a	4/1/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-12	0.108	n/a	4/1/2019	0.048	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-13	0.108	n/a	4/1/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-14	0.108	n/a	4/1/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-15	0.108	n/a	4/1/2019	0.072	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-16	0.108	n/a	4/2/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-17	0.108	n/a	4/2/2019	0.045	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-18	0.108	n/a	4/2/2019	0.05	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-19	0.108	n/a	4/2/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-20	0.108	n/a	4/2/2019	0.15	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-21	0.108	n/a	4/2/2019	0.066	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-22	0.108	n/a	4/2/2019	0.013ND	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-23	0.108	n/a	4/2/2019	0.036	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-6	0.108	n/a	4/2/2019	0.1	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-7	0.108	n/a	4/1/2019	0.12	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-8	0.108	n/a	4/1/2019	0.21	Yes	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	SGWC-9	0.108	n/a	4/1/2019	0.041	No	98	77.55	n/a	0.000...	NP Inter (NDs) 1 of 2
pH (S.U.)	SGWC-10	6.87	5.21	4/1/2019	5.46	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-11	6.87	5.21	4/1/2019	5.24	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-12	6.87	5.21	4/1/2019	6.14	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-13	6.87	5.21	4/1/2019	6.06	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-14	6.87	5.21	4/1/2019	5.89	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-15	6.87	5.21	4/1/2019	4.72	Yes	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-16	6.87	5.21	4/2/2019	5.27	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-17	6.87	5.21	4/2/2019	6.26	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-18	6.87	5.21	4/2/2019	4.72	Yes	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-19	6.87	5.21	4/2/2019	5.5	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-20	6.87	5.21	4/2/2019	4.33	Yes	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-21	6.87	5.21	4/2/2019	6.09	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-22	6.87	5.21	4/2/2019	5.65	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-23	6.87	5.21	4/2/2019	5.87	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-6	6.87	5.21	4/2/2019	6.25	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-7	6.87	5.21	4/1/2019	6.57	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-8	6.87	5.21	4/1/2019	6.41	No	82	0	n/a	0.000...	NP Inter (normality) ...
pH (S.U.)	SGWC-9	6.87	5.21	4/1/2019	6.11	No	82	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	SGWC-10	3.75	n/a	4/1/2019	21	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-11	3.75	n/a	4/1/2019	0.81	No	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-12	3.75	n/a	4/1/2019	48	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-13	3.75	n/a	4/1/2019	82	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-14	3.75	n/a	4/1/2019	180	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-15	3.75	n/a	4/1/2019	190	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-16	3.75	n/a	4/2/2019	31	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-17	3.75	n/a	4/2/2019	180	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-18	3.75	n/a	4/2/2019	1100	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-19	3.75	n/a	4/2/2019	240	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2

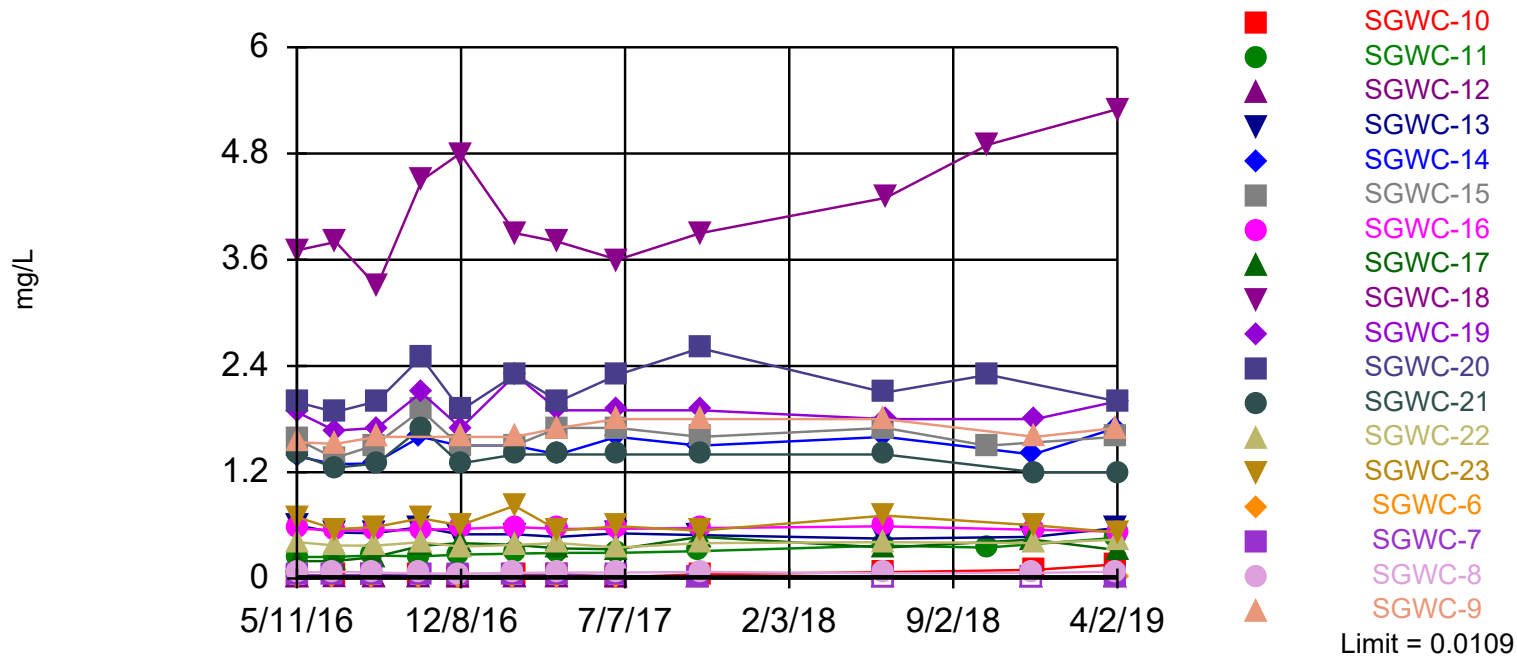
Prediction Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	SGWC-20	3.75	n/a	4/2/2019	220	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-21	3.75	n/a	4/2/2019	92	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-22	3.75	n/a	4/2/2019	100	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-23	3.75	n/a	4/2/2019	95	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-6	3.75	n/a	4/2/2019	1.3	No	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-7	3.75	n/a	4/1/2019	16	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-8	3.75	n/a	4/1/2019	67	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	SGWC-9	3.75	n/a	4/1/2019	310	Yes	84	52.38	n/a	0.00027	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	SGWC-10	130	n/a	4/1/2019	82	No	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-11	130	n/a	4/1/2019	33	No	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-12	130	n/a	4/1/2019	200	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-13	130	n/a	4/1/2019	190	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-14	130	n/a	4/1/2019	330	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-15	130	n/a	4/1/2019	330	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-16	130	n/a	4/2/2019	73	No	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-17	130	n/a	4/2/2019	400	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-18	130	n/a	4/2/2019	1700	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-19	130	n/a	4/2/2019	420	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-20	130	n/a	4/2/2019	370	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-21	130	n/a	4/2/2019	300	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-22	130	n/a	4/2/2019	240	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-23	130	n/a	4/2/2019	250	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-6	130	n/a	4/2/2019	91	No	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-7	130	n/a	4/1/2019	200	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-8	130	n/a	4/1/2019	370	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	SGWC-9	130	n/a	4/1/2019	580	Yes	84	3.571	n/a	0.00027	NP Inter (normality) ...

Exceeds Limit: SGWC-10, SGWC-11,
SGWC-13, SGWC-14, SGWC-15, SGWC-16

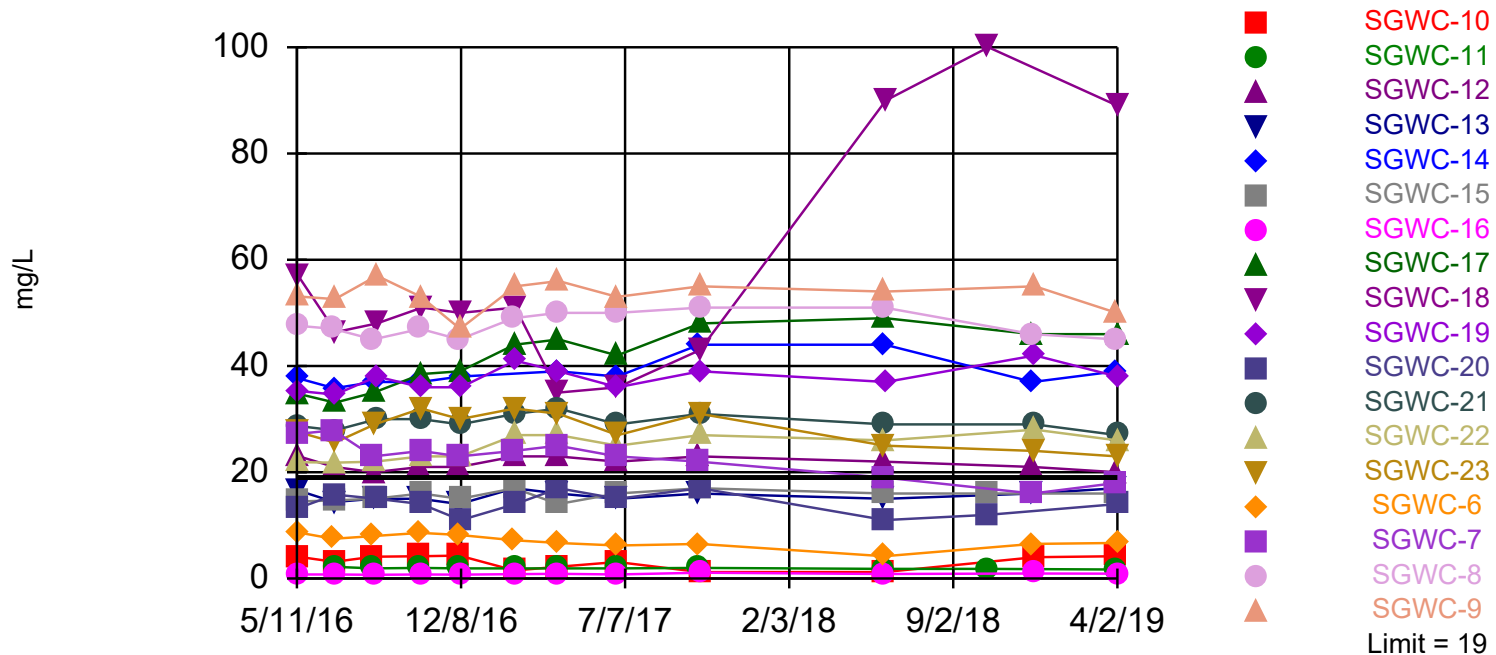
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 96.43% NDs. Annual per-constituent alpha = 0.009675. Individual comparison alpha = 0.00027 (1 of 2). Comparing 18 points to limit.

Exceeds Limit: SGWC-12, SGWC-14,
SGWC-17, SGWC-18, SGWC-19, SGWC-21

Prediction Limit Interwell Non-parametric

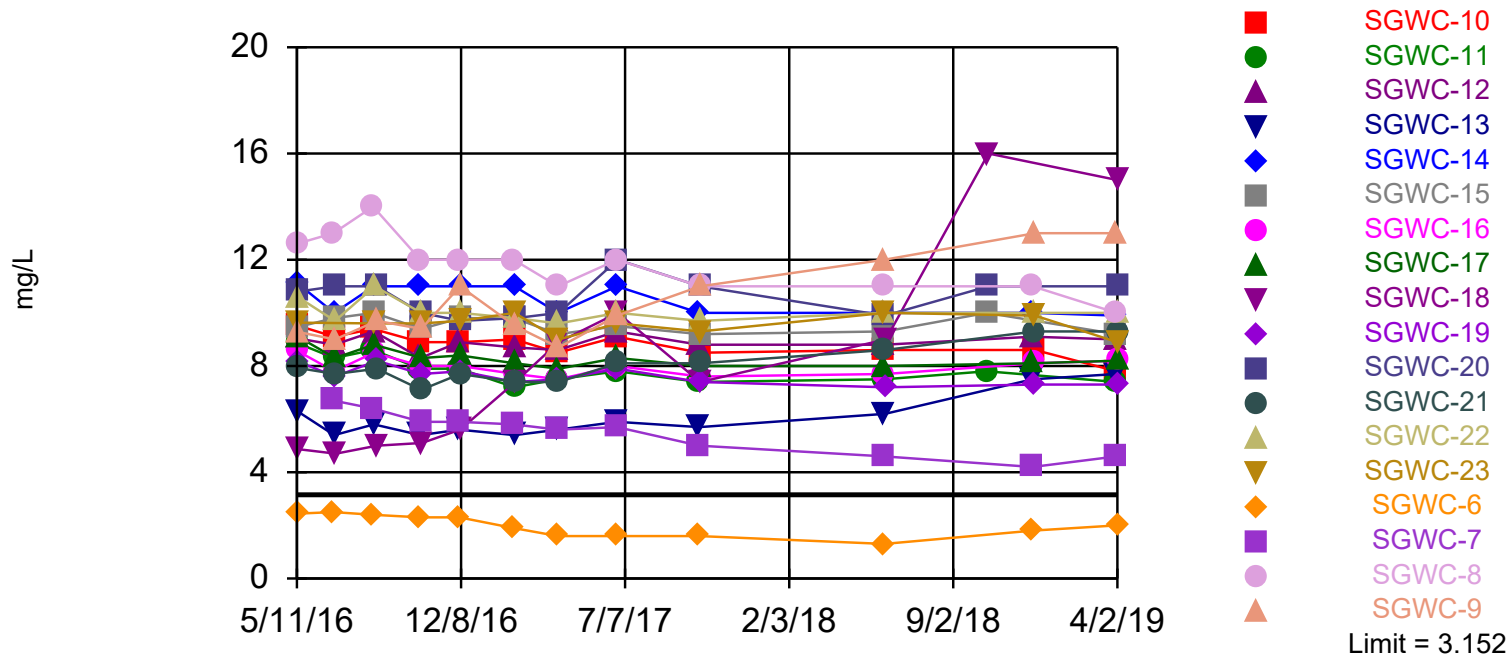


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 81 background values. Annual per-constituent alpha = 0.01031. Individual comparison alpha = 0.0002879 (1 of 2). Comparing 18 points to limit.

Constituent: Calcium Analysis Run 5/20/2019 9:39 AM View: App III
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Exceeds Limit: SGWC-10, SGWC-11,
SGWC-12, SGWC-13, SGWC-14, SGWC-15

Prediction Limit Interwell Parametric

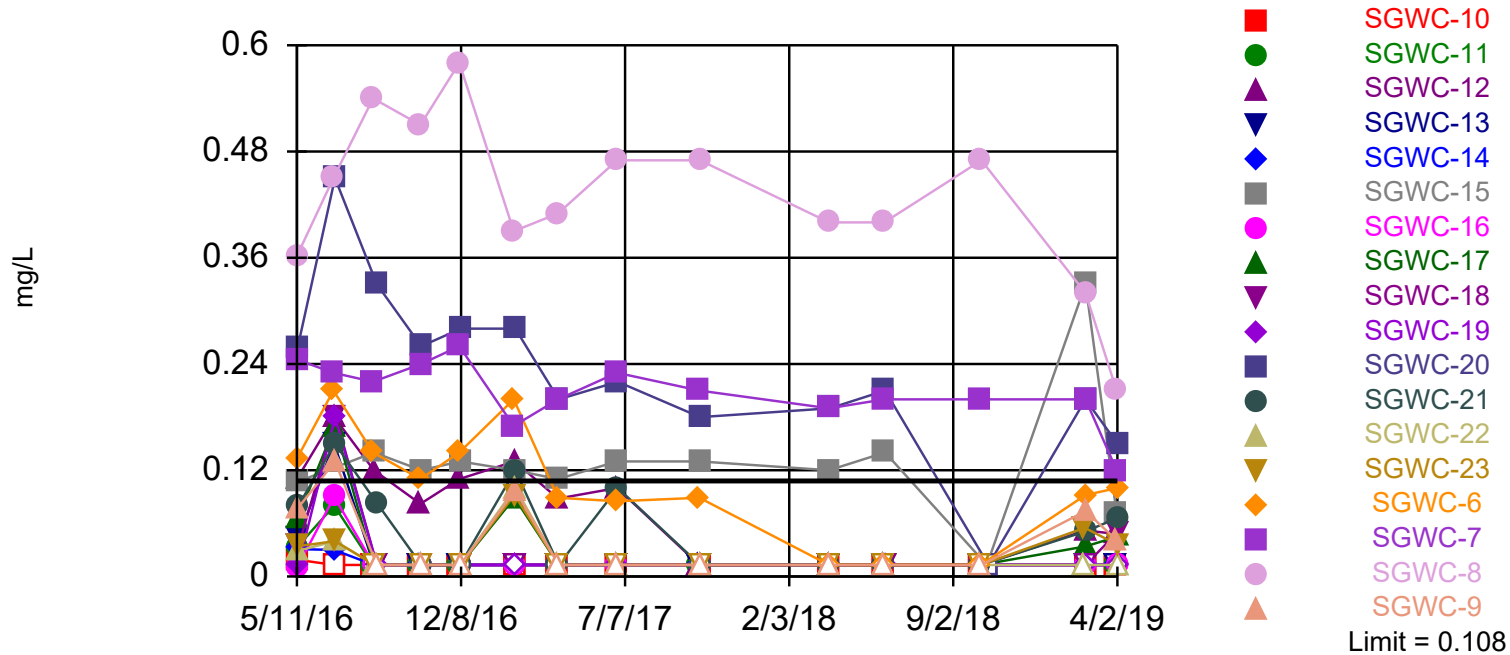


Background Data Summary (based on natural log transformation): Mean=0.5895, Std. Dev.=0.2634, n=82. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9649, critical = 0.959. Kappa = 2.12 (c=7, w=18, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.000418. Comparing 18 points to limit.

Constituent: Chloride Analysis Run 5/20/2019 9:39 AM View: App III
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Exceeds Limit: SGWC-8

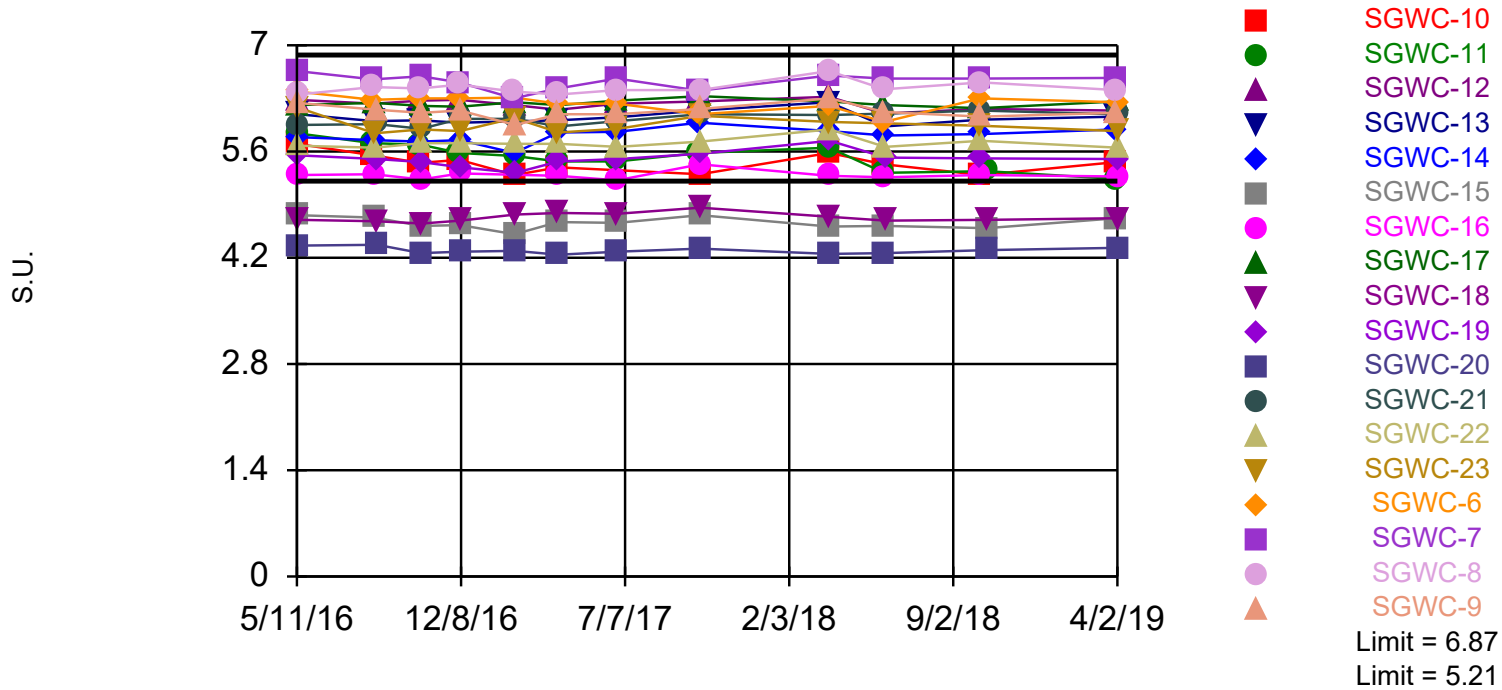
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 98 background values. 77.55% NDs. Annual per-constituent alpha = 0.007164. Individual comparison alpha = 0.0001997 (1 of 2). Comparing 18 points to limit.

Exceeds Limits: SGWC-15, SGWC-18,
SGWC-20

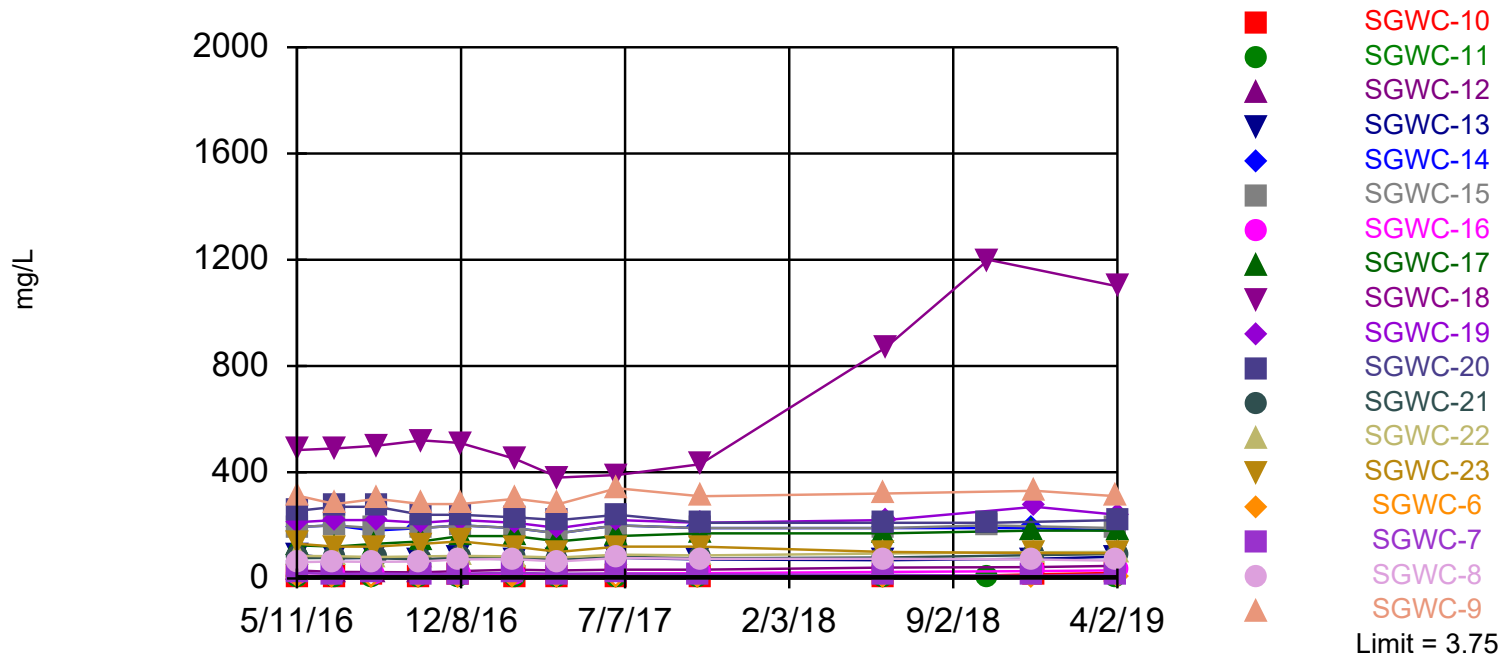
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 82 background values. Annual per-constituent alpha = 0.0202. Individual comparison alpha = 0.0005638 (1 of 2). Comparing 18 points to limit.

Exceeds Limit: SGWC-10, SGWC-12,
SGWC-13, SGWC-14, SGWC-15, SGWC-16

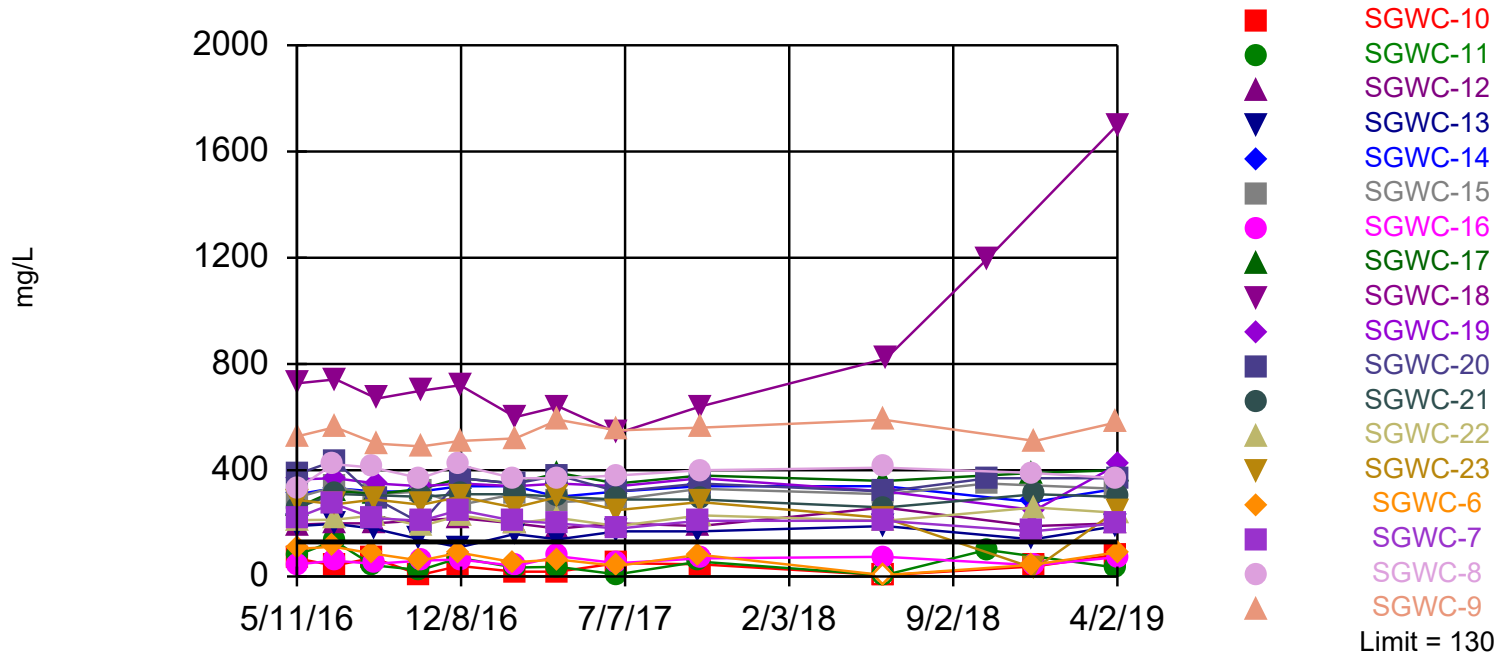
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 52.38% NDs. Annual per-constituent alpha = 0.009675. Individual comparison alpha = 0.00027 (1 of 2). Comparing 18 points to limit.

Exceeds Limit: SGWC-12, SGWC-13,
SGWC-14, SGWC-15, SGWC-17, SGWC-18

Prediction Limit Interwell Non-parametric

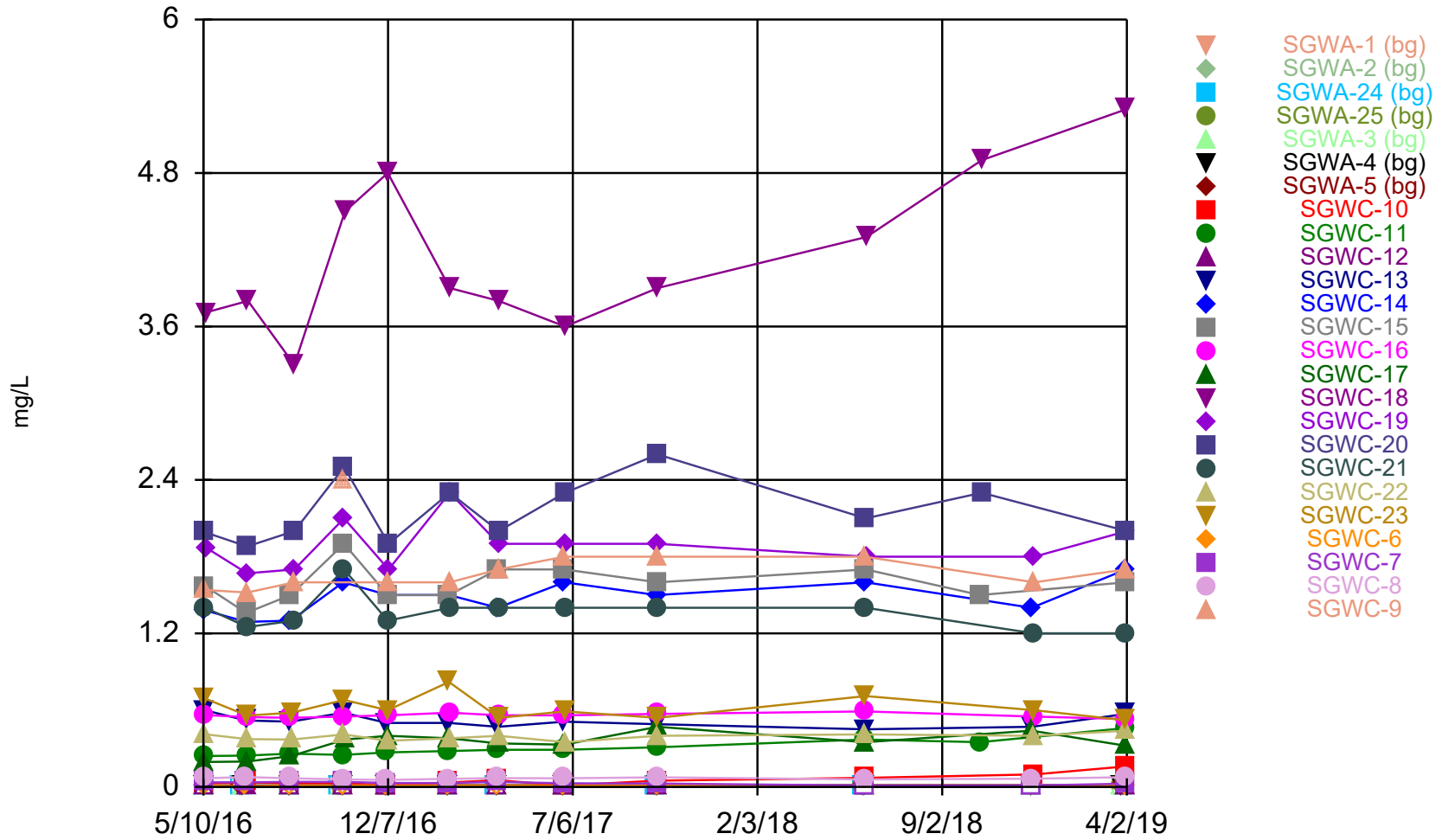


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 3.571% NDs. Annual per-constituent alpha = 0.009675. Individual comparison alpha = 0.00027 (1 of 2). Comparing 18 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/20/2019 9:39 AM View: App III

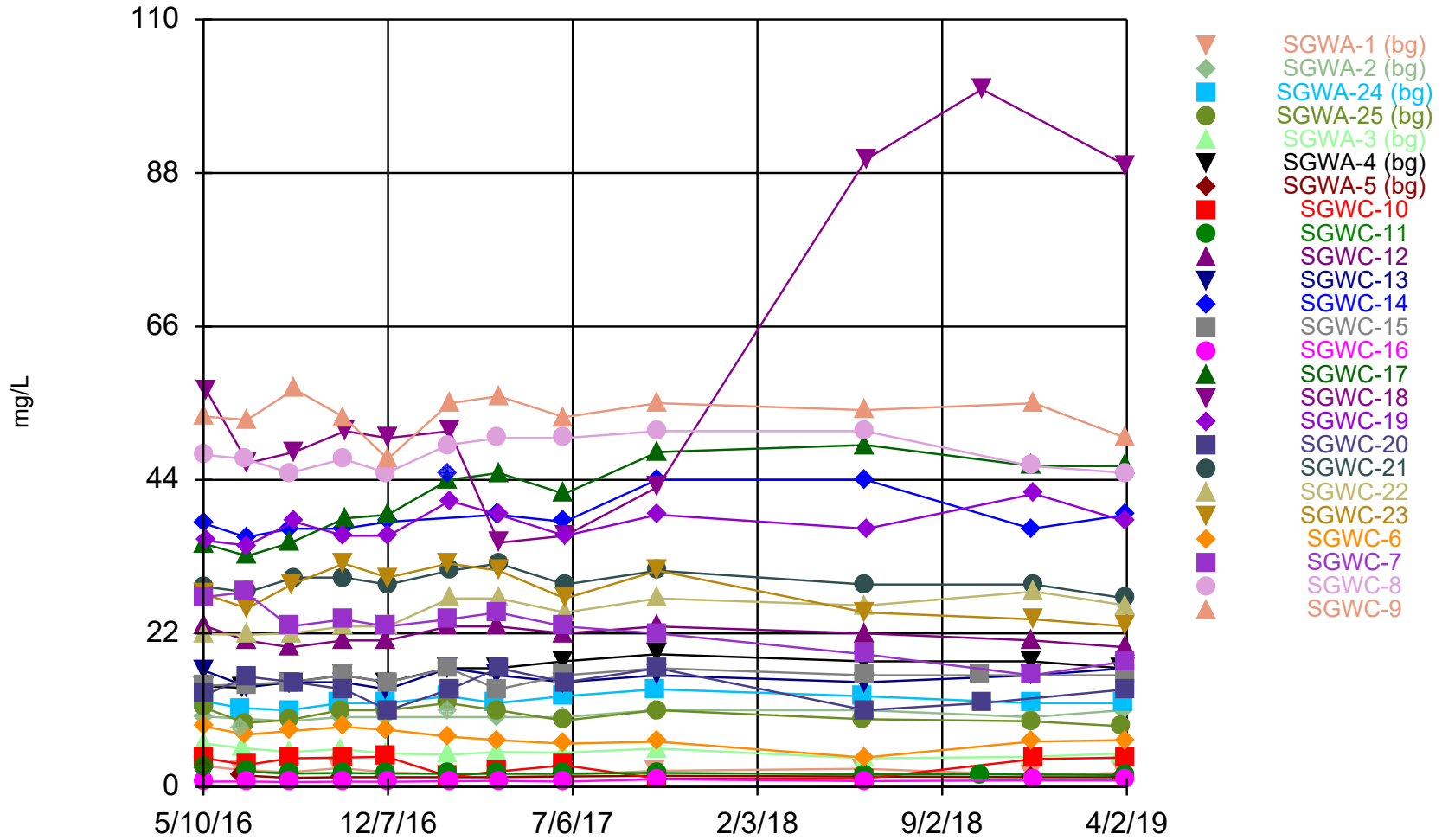
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Boron Analysis Run 5/20/2019 10:02 AM View: App III
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

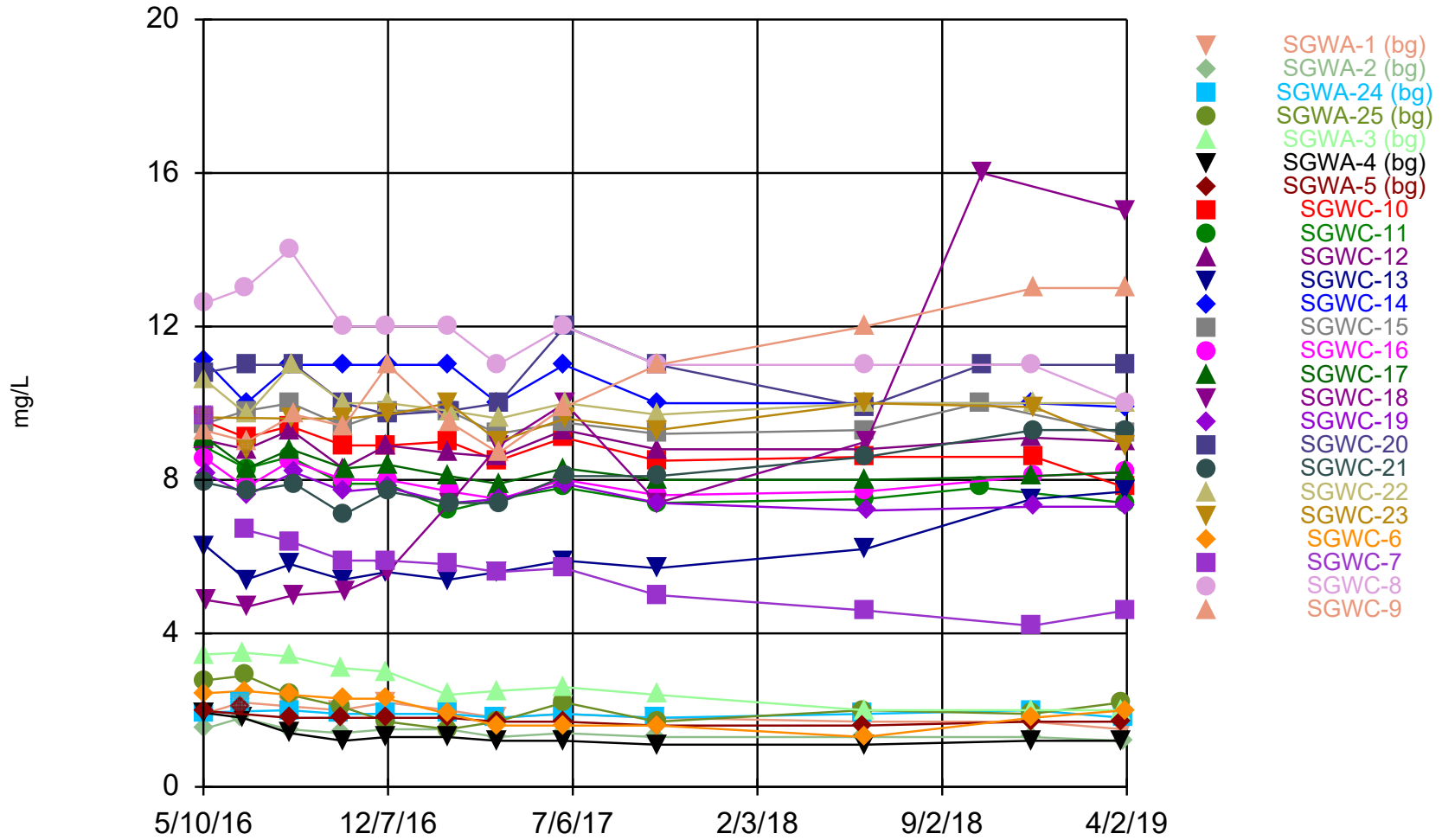
Time Series



Constituent: Calcium Analysis Run 5/20/2019 10:02 AM View: App III

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

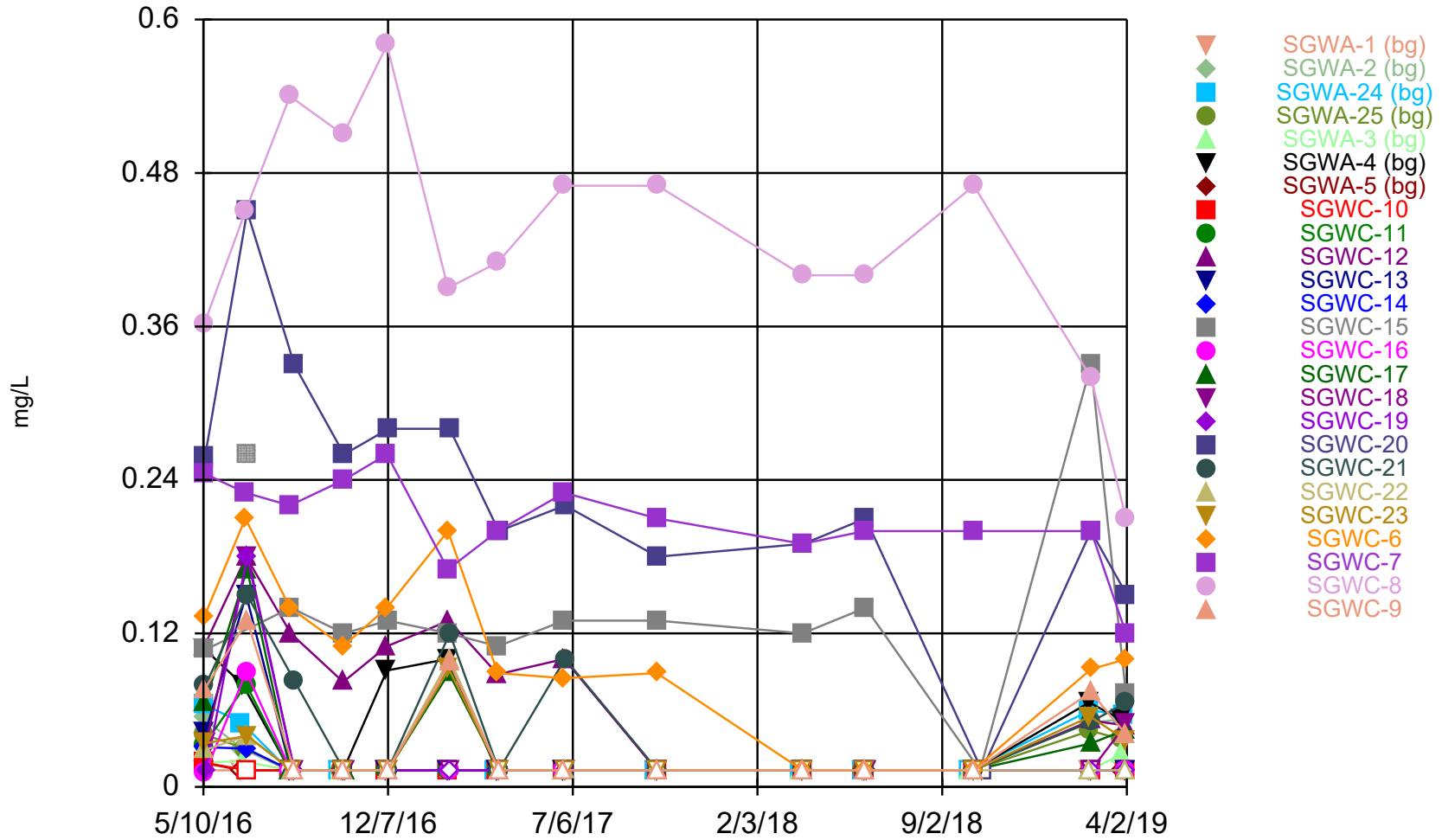
Time Series



Constituent: Chloride Analysis Run 5/20/2019 10:03 AM View: App III

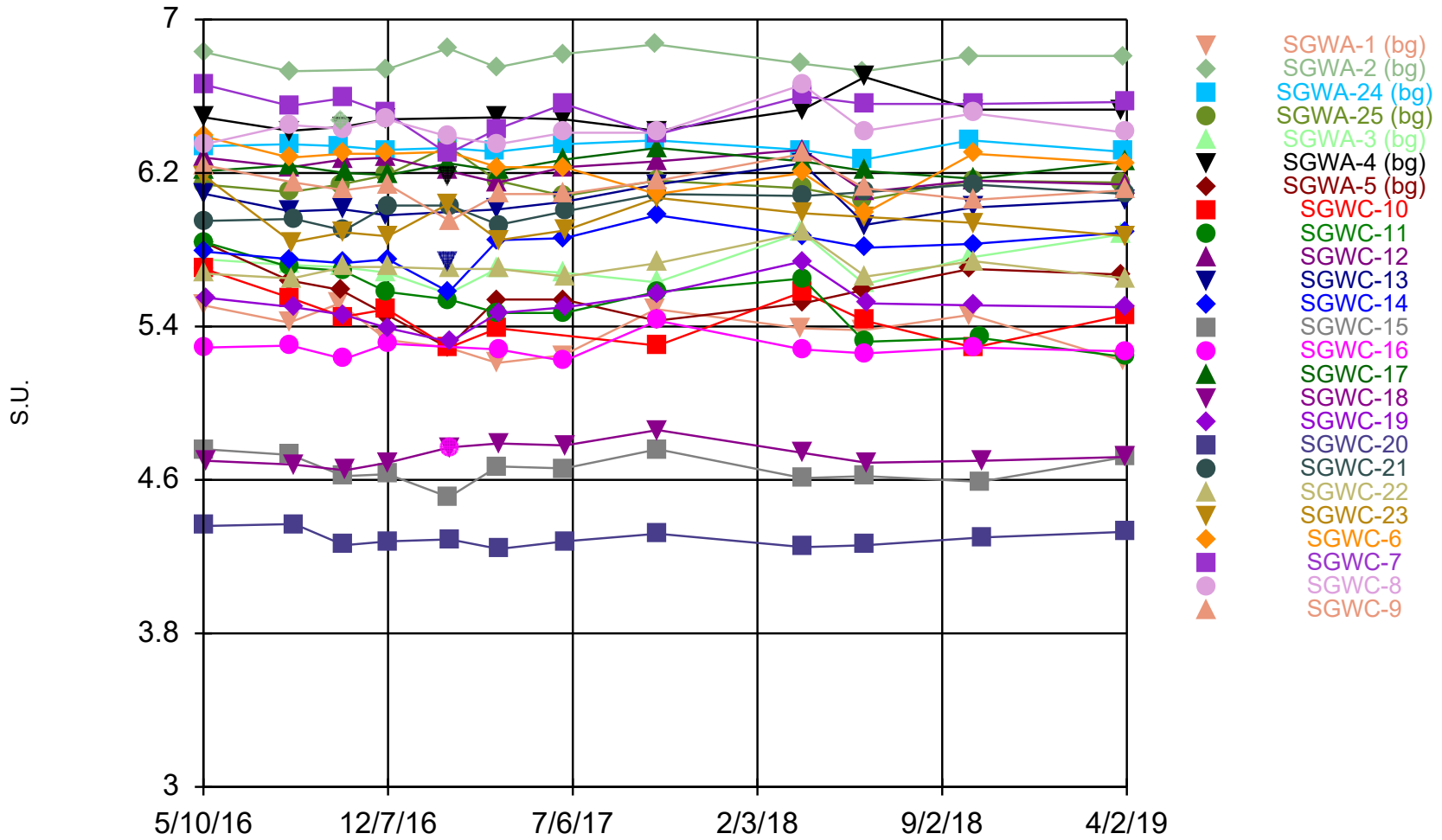
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



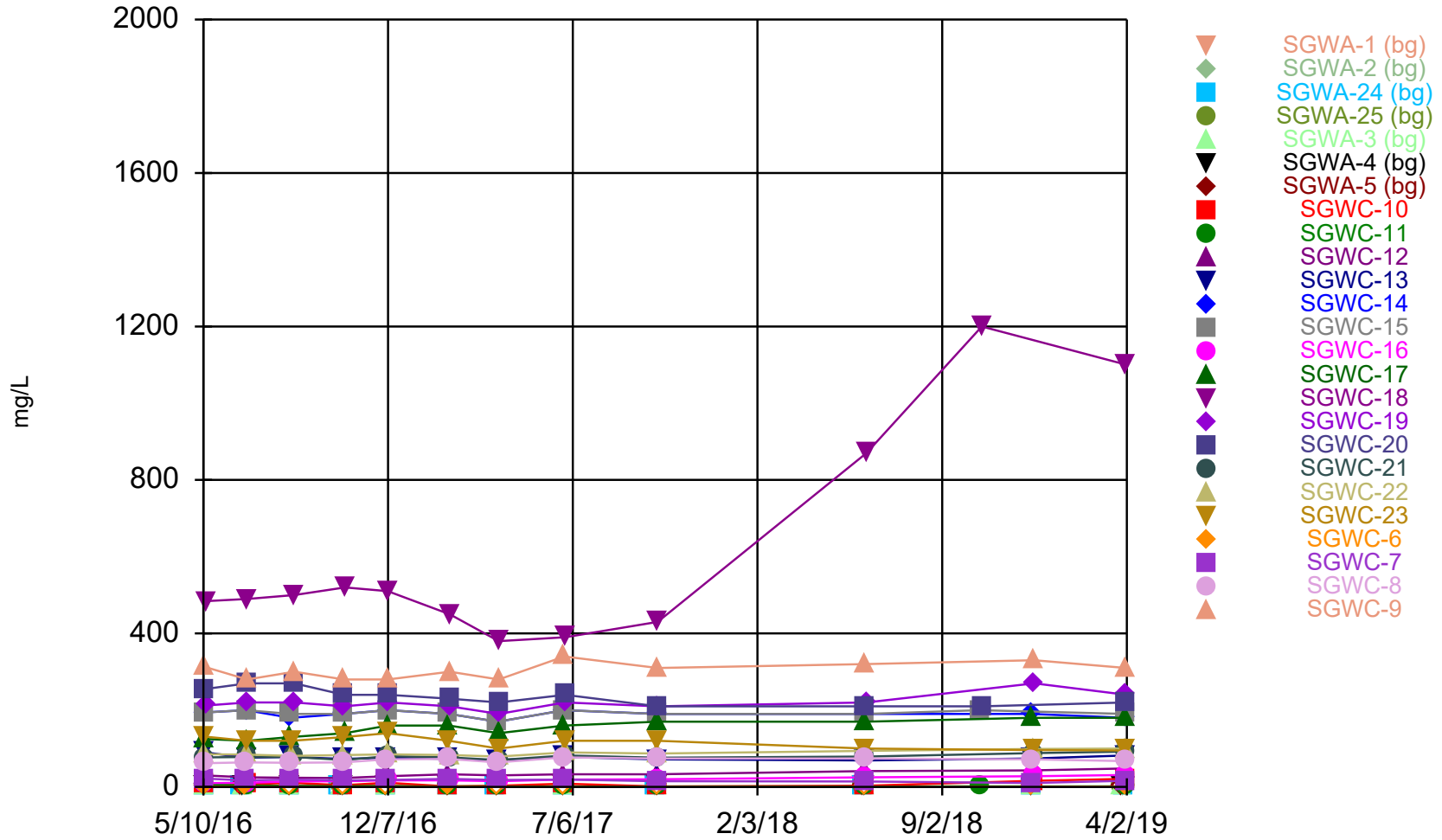
Constituent: Fluoride Analysis Run 5/20/2019 10:03 AM View: App III
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



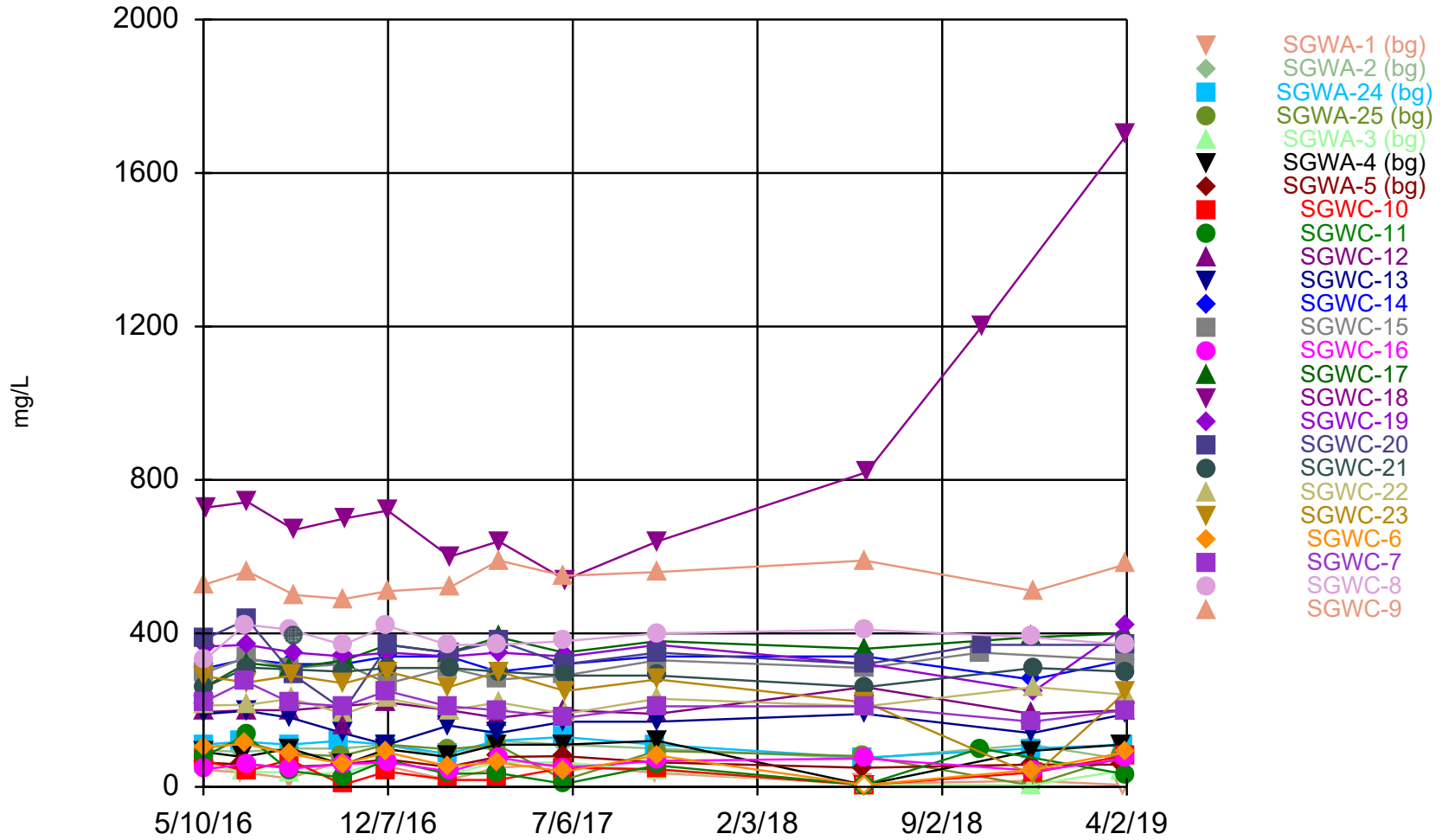
Constituent: pH Analysis Run 5/20/2019 10:03 AM View: App III
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Sulfate Analysis Run 5/20/2019 10:03 AM View: App III
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/20/2019 10:03 AM View: App III

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

APPENDIX B STATISTICAL ANALYSES
Federal CCR Rule 40 CFR §257.95
Appendix IV Confidence Intervals

Tolerance Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:42 AM

<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	0.0021	n/a	n/a	n/a	83	92.77	n/a	0.01416	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0015	n/a	n/a	n/a	91	78.02	n/a	0.009394	NP Inter(NDs)
Barium (mg/L)	n/a	0.06349	n/a	n/a	n/a	91	0	No	0.05	Inter
Beryllium (mg/L)	n/a	0.0002	n/a	n/a	n/a	91	98.9	n/a	0.009394	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0011	n/a	n/a	n/a	84	97.62	n/a	0.01345	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	91	35.16	n/a	0.009394	NP Inter(normal...
Cobalt (mg/L)	n/a	0.02	n/a	n/a	n/a	90	64.44	n/a	0.009888	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	n/a	1.2	n/a	n/a	n/a	90	14.44	n/a	0.009888	NP Inter(normal...
Fluoride (mg/L)	n/a	0.108	n/a	n/a	n/a	98	77.55	n/a	0.00656	NP Inter(NDs)
Lead (mg/L)	n/a	0.000175	n/a	n/a	n/a	91	98.9	n/a	0.009394	NP Inter(NDs)
Lithium (mg/L)	n/a	0.00235	n/a	n/a	n/a	91	90.11	n/a	0.009394	NP Inter(NDs)
Mercury (mg/L)	n/a	0.00012	n/a	n/a	n/a	91	89.01	n/a	0.009394	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.00278	n/a	n/a	n/a	84	89.29	n/a	0.01345	NP Inter(NDs)
Selenium (mg/L)	n/a	0.00041	n/a	n/a	n/a	91	95.6	n/a	0.009394	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0001	n/a	n/a	n/a	91	96.7	n/a	0.009394	NP Inter(NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	SGWC-10	0.03244	0.02191	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-11	0.03044	0.02587	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-15	0.2764	0.2608	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-18	0.1609	0.1202	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-20	0.231	0.1892	0.02	Yes	13	0	No	0.05	Param.

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	SGWA-1 (bg)	0.0012	0.0004	0.006	No	12	83.33	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-2 (bg)	0.0005	0.0005	0.006	No	12	100	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-24 (bg)	0.0005	0.0003	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-25 (bg)	0.0005	0.0003	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-3 (bg)	0.0021	0.0005	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-4 (bg)	0.0007	0.0005	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-5 (bg)	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-10	0.0005	0.0005	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-11	0.0005	0.0005	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-12	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-13	0.0005	0.0004	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-14	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-15	0.0005	0.0005	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-16	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-17	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-18	0.0005	0.0005	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-19	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-20	0.0005	0.0005	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-21	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-22	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-23	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-6	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-7	0.0005	0.0004	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-8	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-9	0.0005	0.0005	0.006	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	SGWA-1 (bg)	0.00055	0.00023	0.01	No	13	76.92	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-2 (bg)	0.00046	0.00023	0.01	No	13	76.92	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-24 (bg)	0.00057	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-25 (bg)	0.0008085	0.0003303	0.01	No	13	38.46	No	0.05	Param.
Arsenic (mg/L)	SGWA-3 (bg)	0.00063	0.00023	0.01	No	13	92.31	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-4 (bg)	0.00055	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-5 (bg)	0.00079	0.00023	0.01	No	13	92.31	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-10	0.0005	0.00023	0.01	No	13	76.92	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-11	0.0011	0.00023	0.01	No	13	30.77	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-12	0.00091	0.00023	0.01	No	13	46.15	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-13	0.00047	0.00023	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-14	0.00057	0.00023	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-15	0.001316	0.0004382	0.01	No	13	30.77	No	0.05	Param.
Arsenic (mg/L)	SGWC-16	0.00054	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-17	0.00066	0.00023	0.01	No	13	61.54	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-18	0.002359	0.001387	0.01	No	13	0	No	0.05	Param.
Arsenic (mg/L)	SGWC-19	0.00058	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-20	0.00085	0.00023	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-21	0.00076	0.00023	0.01	No	13	92.31	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-22	0.0006	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-23	0.00061	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-6	0.00046	0.00023	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-7	0.00058	0.00023	0.01	No	13	61.54	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-8	0.0005	0.00023	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-9	0.00079	0.00023	0.01	No	13	46.15	No	0.05	NP (normality)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Barium (mg/L)	SGWA-1 (bg)	0.05593	0.04912	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-2 (bg)	0.03864	0.03599	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-24 (bg)	0.02207	0.02052	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-25 (bg)	0.02366	0.02151	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-3 (bg)	0.03503	0.03301	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-4 (bg)	0.05691	0.05071	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-5 (bg)	0.01061	0.009881	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-10	0.03245	0.02858	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-11	0.03967	0.03653	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-12	0.04404	0.03573	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-13	0.0317	0.02531	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-14	0.06174	0.05707	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-15	0.04028	0.03641	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-16	0.02141	0.01779	2	No	12	0	ln(x)	0.05	Param.
Barium (mg/L)	SGWC-17	0.02022	0.01806	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-18	0.029	0.0138	2	No	13	0	No	0.05	NP (normality)
Barium (mg/L)	SGWC-19	0.04289	0.03699	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-20	0.03686	0.02979	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-21	0.09368	0.08997	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-22	0.09397	0.08551	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-23	0.08903	0.07876	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-6	0.08447	0.05327	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-7	0.3104	0.2755	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-8	0.19	0.17	2	No	13	0	No	0.05	NP (normality)
Barium (mg/L)	SGWC-9	0.06681	0.05594	2	No	13	0	No	0.05	Param.
Beryllium (mg/L)	SGWA-1 (bg)	0.0002	0.00017	0.004	No	13	92.31	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-2 (bg)	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-24 (bg)	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-25 (bg)	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-3 (bg)	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-4 (bg)	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-5 (bg)	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-10	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-11	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-12	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-13	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-14	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-15	0.0004	0.0003	0.004	No	13	23.08	No	0.05	NP (Cohens/xfrm)
Beryllium (mg/L)	SGWC-16	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-17	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-18	0.0003	0.00017	0.004	No	13	69.23	No	0.05	NP (normality)
Beryllium (mg/L)	SGWC-19	0.0002	0.00016	0.004	No	13	84.62	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-20	0.0008153	0.0006912	0.004	No	13	0	No	0.05	Param.
Beryllium (mg/L)	SGWC-21	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-22	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-23	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-6	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-7	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-8	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-9	0.00017	0.00017	0.004	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	SGWA-1 (bg)	0.00017	0.000156	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-2 (bg)	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-24 (bg)	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-25 (bg)	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-3 (bg)	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-4 (bg)	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-5 (bg)	0.0011	0.00017	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-10	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-11	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-12	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-13	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-14	0.00017	0.000136	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-15	0.0003	0.00017	0.005	No	12	66.67	No	0.05	NP (normality)
Cadmium (mg/L)	SGWC-16	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-17	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-18	0.0002	0.00016	0.005	No	12	75	No	0.05	NP (normality)
Cadmium (mg/L)	SGWC-19	0.00036	0.00017	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-20	0.00017	0.000108	0.005	No	12	83.33	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-21	0.00039	0.00017	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-22	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-23	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-6	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-7	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-8	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-9	0.00017	0.00017	0.005	No	12	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWA-1 (bg)	0.0014	0.00055	0.1	No	13	69.23	No	0.05	NP (normality)
Chromium (mg/L)	SGWA-2 (bg)	0.0139	0.01152	0.1	No	13	0	x^3	0.05	Param.
Chromium (mg/L)	SGWA-24 (bg)	0.004344	0.003507	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWA-25 (bg)	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWA-3 (bg)	0.0118	0.008221	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWA-4 (bg)	0.005565	0.003261	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWA-5 (bg)	0.0011	0.00055	0.1	No	13	76.92	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-10	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-11	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-12	0.0023	0.00055	0.1	No	13	92.31	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-13	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-14	0.0008	0.00055	0.1	No	13	69.23	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-15	0.03421	0.03216	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-16	0.01	0.0093	0.1	No	13	0	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-17	0.005546	0.003754	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-18	0.008385	0.006909	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-19	0.01559	0.01429	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-20	0.0009	0.00055	0.1	No	13	92.31	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-21	0.0012	0.00055	0.1	No	13	84.62	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-22	0.0007	0.00055	0.1	No	13	76.92	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-23	0.0014	0.00055	0.1	No	12	50	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-6	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-7	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-8	0.0013	0.00055	0.1	No	13	53.85	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-9	0.00055	0.00055	0.1	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	SGWA-1 (bg)	0.01348	0.006417	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWA-2 (bg)	0.0004	0.0002	0.02	No	13	92.31	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-24 (bg)	0.0004	0.0002	0.02	No	13	76.92	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-25 (bg)	0.01307	0.008664	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWA-3 (bg)	0.00051	0.0002	0.02	No	12	91.67	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-4 (bg)	0.00041	0.0002	0.02	No	13	92.31	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-5 (bg)	0.0002	0.0002	0.02	No	13	100	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWC-10	0.03244	0.02191	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-11	0.03044	0.02587	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-12	0.004296	0.00344	0.02	No	13	0	x^(1/3)	0.05	Param.
Cobalt (mg/L)	SGWC-13	0.008913	0.005426	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-14	0.0122	0.007597	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-15	0.2764	0.2608	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-16	0.003718	0.003256	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-17	0.0006166	0.000396	0.02	No	12	25	No	0.05	Param.
Cobalt (mg/L)	SGWC-18	0.1609	0.1202	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-19	0.0006	0.0002	0.02	No	13	53.85	No	0.05	NP (normality)
Cobalt (mg/L)	SGWC-20	0.231	0.1892	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-21	0.0002	0.00011	0.02	No	13	92.31	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWC-22	0.003961	0.002599	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-23	0.0002	0.0002	0.02	No	12	100	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWC-6	0.002361	0.0007227	0.02	No	13	23.08	No	0.05	Param.
Cobalt (mg/L)	SGWC-7	0.0122	0.0074	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-8	0.00049	0.0002	0.02	No	13	69.23	No	0.05	NP (normality)
Cobalt (mg/L)	SGWC-9	0.01418	0.01032	0.02	No	13	0	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-1 (bg)	0.3626	0.22	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-2 (bg)	0.441	0.124	5	No	13	15.38	No	0.05	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	SGWA-24 (bg)	0.3648	0.1393	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-25 (bg)	0.3436	0.1091	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-3 (bg)	0.332	0.152	5	No	13	15.38	No	0.05	NP (normality)
Combined Radium 226 + 228 (pCi/L)	SGWA-4 (bg)	0.2693	0.07354	5	No	12	16.67	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-5 (bg)	0.358	0.207	5	No	13	15.38	No	0.05	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	SGWC-10	0.47	0.136	5	No	13	7.692	No	0.05	NP (normality)
Combined Radium 226 + 228 (pCi/L)	SGWC-11	0.5633	0.2475	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-12	0.3922	0.1505	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-13	0.4327	0.1478	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-14	0.4149	0.1565	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-15	0.4425	0.2244	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-16	0.3603	0.1494	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-17	0.3847	0.1785	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-18	0.3762	0.1933	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-19	0.3575	0.1285	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-20	0.587	0.3108	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-21	0.38	0.143	5	No	13	15.38	No	0.05	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	SGWC-22	0.3485	0.1964	5	No	12	8.333	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-23	0.6575	0.4445	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-6	0.355	0.122	5	No	13	15.38	No	0.05	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	SGWC-7	0.5181	0.346	5	No	13	0	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-8	2.5	2.072	5	No	13	0	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-9	0.4197	0.2193	5	No	13	7.692	No	0.05	Param.

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	SGWA-1 (bg)	0.013	0.013	4	No	14	100	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWA-2 (bg)	0.03	0.013	4	No	14	71.43	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-24 (bg)	0.05	0.013	4	No	14	71.43	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-25 (bg)	0.03	0.013	4	No	14	71.43	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-3 (bg)	0.0192	0.013	4	No	14	78.57	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWA-4 (bg)	0.08	0.013	4	No	14	57.14	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-5 (bg)	0.0188	0.013	4	No	14	92.86	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-10	0.019	0.013	4	No	14	92.86	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-11	0.033	0.013	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-12	0.09934	0.0399	4	No	14	28.57	No	0.05	Param.
Fluoride (mg/L)	SGWC-13	0.042	0.013	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-14	0.03	0.013	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-15	0.14	0.11	4	No	13	7.692	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-16	0.09	0.011	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-17	0.045	0.013	4	No	14	64.29	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-18	0.0343	0.013	4	No	14	78.57	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-19	0.18	0.0126	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-20	0.2766	0.1837	4	No	14	7.143	No	0.05	Param.
Fluoride (mg/L)	SGWC-21	0.083	0.013	4	No	14	50	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-22	0.029	0.013	4	No	14	78.57	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-23	0.036	0.013	4	No	14	64.29	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-6	0.1299	0.06374	4	No	14	21.43	No	0.05	Param.
Fluoride (mg/L)	SGWC-7	0.2248	0.1916	4	No	14	0	No	0.05	Param.
Fluoride (mg/L)	SGWC-8	0.4718	0.3828	4	No	14	0	No	0.05	Param.
Fluoride (mg/L)	SGWC-9	0.074	0.013	4	No	14	64.29	No	0.05	NP (normality)
Lead (mg/L)	SGWA-1 (bg)	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-2 (bg)	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-24 (bg)	0.000175	0.0001	0.015	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-25 (bg)	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-3 (bg)	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-4 (bg)	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-5 (bg)	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-10	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-11	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-12	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-13	0.00039	0.000175	0.015	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-14	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-15	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-16	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-17	0.000175	0.000175	0.015	No	12	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-18	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-19	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-20	0.00027	0.000175	0.015	No	13	69.23	No	0.05	NP (normality)
Lead (mg/L)	SGWC-21	0.000175	0.00009	0.015	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-22	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-23	0.000175	0.00009	0.015	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-6	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-7	0.00085	0.000175	0.015	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-8	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-9	0.000175	0.000175	0.015	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	SGWA-1 (bg)	0.0013	0.00055	0.04	No	13	69.23	No	0.05	NP (normality)
Lithium (mg/L)	SGWA-2 (bg)	0.00055	0.00055	0.04	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-24 (bg)	0.0011	0.00055	0.04	No	13	84.62	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-25 (bg)	0.0015	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-3 (bg)	0.0013	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-4 (bg)	0.00055	0.00055	0.04	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-5 (bg)	0.0017	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-10	0.00055	0.00055	0.04	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-11	0.0029	0.00055	0.04	No	13	53.85	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-12	0.0011	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-13	0.0014	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-14	0.000925	0.00055	0.04	No	12	83.33	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-15	0.003	0.00055	0.04	No	13	53.85	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-16	0.0015	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-17	0.0014	0.00055	0.04	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-18	0.0042	0.00055	0.04	No	13	46.15	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-19	0.0021	0.00055	0.04	No	13	84.62	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-20	0.004834	0.003718	0.04	No	12	8.333	x^2	0.05	Param.
Lithium (mg/L)	SGWC-21	0.0013	0.00055	0.04	No	13	76.92	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-22	0.0011	0.00055	0.04	No	13	84.62	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-23	0.003599	0.001908	0.04	No	12	25	No	0.05	Param.
Lithium (mg/L)	SGWC-6	0.00055	0.00055	0.04	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-7	0.005163	0.004087	0.04	No	12	0	No	0.05	Param.
Lithium (mg/L)	SGWC-8	0.0018	0.00055	0.04	No	13	61.54	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-9	0.00055	0.00055	0.04	No	13	100	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-1 (bg)	0.00007	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-2 (bg)	0.00011	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-24 (bg)	0.00012	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-25 (bg)	0.000075	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-3 (bg)	0.000087	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-4 (bg)	0.00011	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-5 (bg)	0.000072	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-10	0.00013	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-11	0.0000535	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-12	0.000093	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-13	0.00011	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-14	0.000089	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-15	0.0001046	0.00005923	0.002	No	13	38.46	No	0.05	Param.
Mercury (mg/L)	SGWC-16	0.000076	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-17	0.00011	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-18	0.0002	0.000035	0.002	No	13	38.46	No	0.05	NP (normality)
Mercury (mg/L)	SGWC-19	0.000035	0.000035	0.002	No	13	100	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-20	0.000073	0.000035	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-21	0.0001	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-22	0.000099	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-23	0.000071	0.000035	0.002	No	13	76.92	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-6	0.00011	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-7	0.00011	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-8	0.000076	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-9	0.0001	0.000035	0.002	No	13	92.31	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (mg/L)	SGWA-1 (bg)	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-2 (bg)	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-24 (bg)	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-25 (bg)	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-3 (bg)	0.0011	0.001	0.1	No	12	91.67	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-4 (bg)	0.0018	0.00095	0.1	No	12	33.33	No	0.05	NP (Cohens/xfrm)
Molybdenum (mg/L)	SGWA-5 (bg)	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-10	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-11	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-12	0.0011	0.001	0.1	No	12	83.33	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-13	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-14	0.003	0.001	0.1	No	12	91.67	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-15	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-16	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-17	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-18	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-19	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-20	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-21	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-22	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-23	0.001	0.001	0.1	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-6	0.001	0.00099	0.1	No	12	83.33	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-7	0.0033	0.001	0.1	No	12	33.33	No	0.05	NP (normality)
Molybdenum (mg/L)	SGWC-8	0.001	0.0008	0.1	No	12	91.67	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-9	0.0014	0.001	0.1	No	12	50	No	0.05	NP (normality)
Selenium (mg/L)	SGWA-1 (bg)	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-2 (bg)	0.000355	0.00017	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-24 (bg)	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-25 (bg)	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-3 (bg)	0.000355	0.00029	0.05	No	13	84.62	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-4 (bg)	0.00041	0.000355	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-5 (bg)	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-10	0.000355	0.000355	0.05	No	12	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-11	0.00046	0.000355	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-12	0.000355	0.00031	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-13	0.000355	0.0003	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-14	0.00066	0.000355	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-15	0.0021	0.0007	0.05	No	13	23.08	No	0.05	NP (Cohens/xfrm)
Selenium (mg/L)	SGWC-16	0.001	0.000355	0.05	No	13	61.54	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-17	0.000355	0.00024	0.05	No	12	91.67	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-18	0.017	0.0057	0.05	No	13	0	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-19	0.00096	0.000355	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-20	0.0011	0.000355	0.05	No	13	53.85	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-21	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-22	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-23	0.000355	0.00033	0.05	No	13	84.62	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-6	0.00057	0.00034	0.05	No	13	84.62	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-7	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-8	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-9	0.000355	0.000355	0.05	No	13	100	No	0.05	NP (NDs)

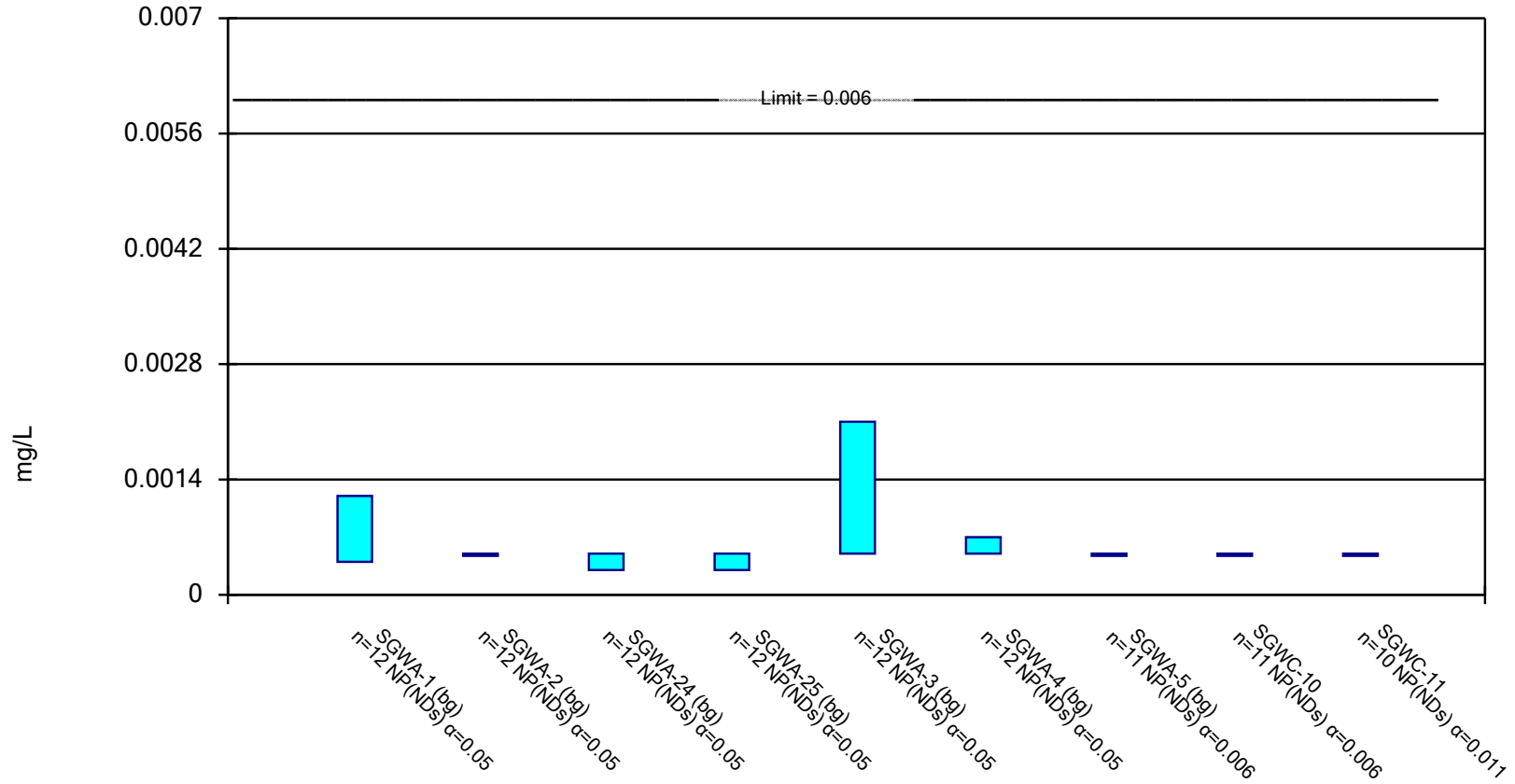
Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 5/20/2019, 9:50 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (mg/L)	SGWA-1 (bg)	0.00008	0.0000425	0.002	No	13	84.62	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-2 (bg)	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-24 (bg)	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-25 (bg)	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-3 (bg)	0.0001	0.0000425	0.002	No	13	92.31	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-4 (bg)	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-5 (bg)	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-10	0.0001	0.0000425	0.002	No	13	92.31	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-11	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-12	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-13	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-14	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-15	0.000098	0.0000425	0.002	No	13	46.15	No	0.05	NP (normality)
Thallium (mg/L)	SGWC-16	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-17	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-18	0.0001706	0.0001303	0.002	No	12	0	No	0.05	Param.
Thallium (mg/L)	SGWC-19	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-20	0.00018	0.0001416	0.002	No	12	0	No	0.05	Param.
Thallium (mg/L)	SGWC-21	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-22	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-23	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-6	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-7	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-8	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-9	0.0000425	0.0000425	0.002	No	13	100	No	0.05	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

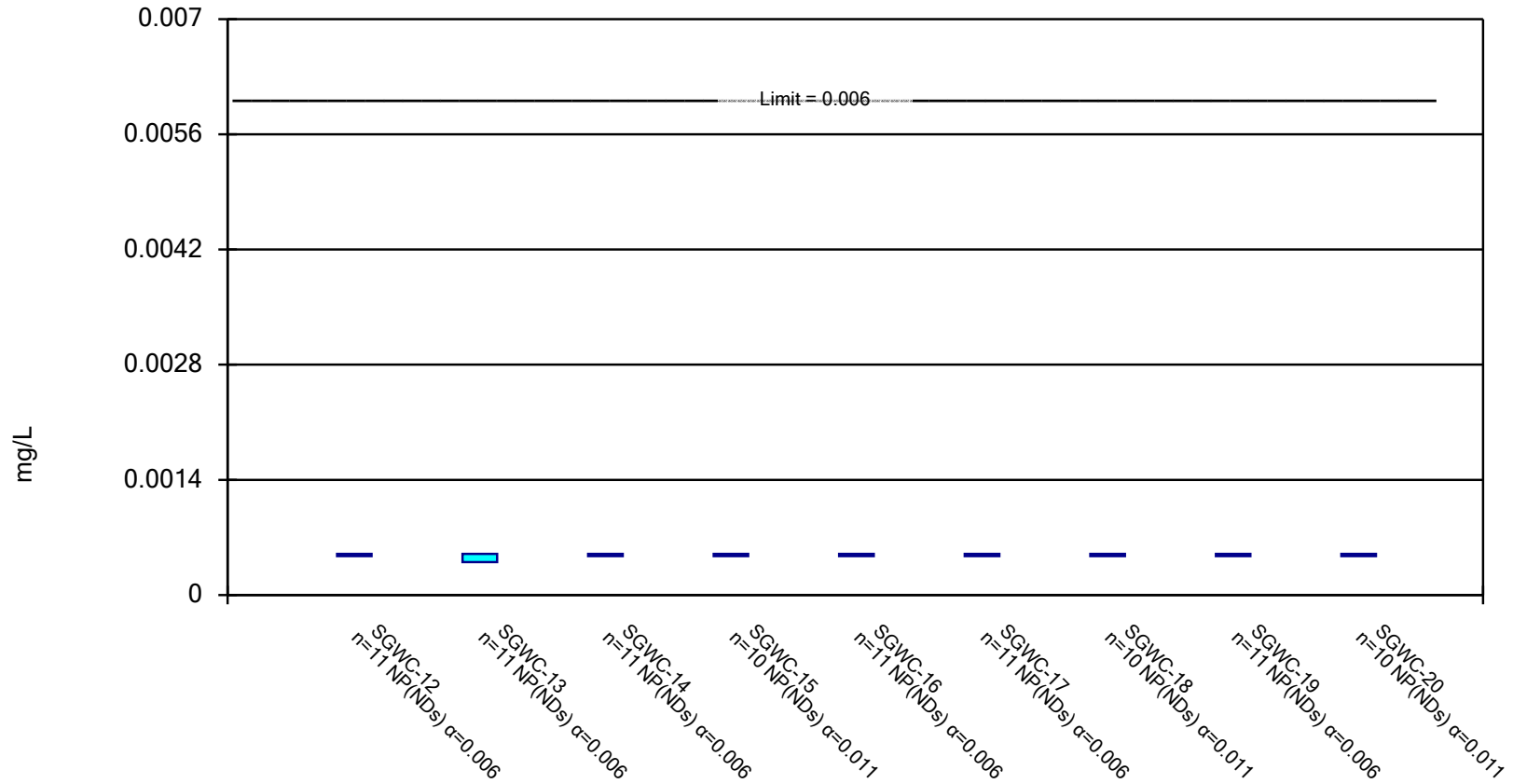


Constituent: Antimony Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

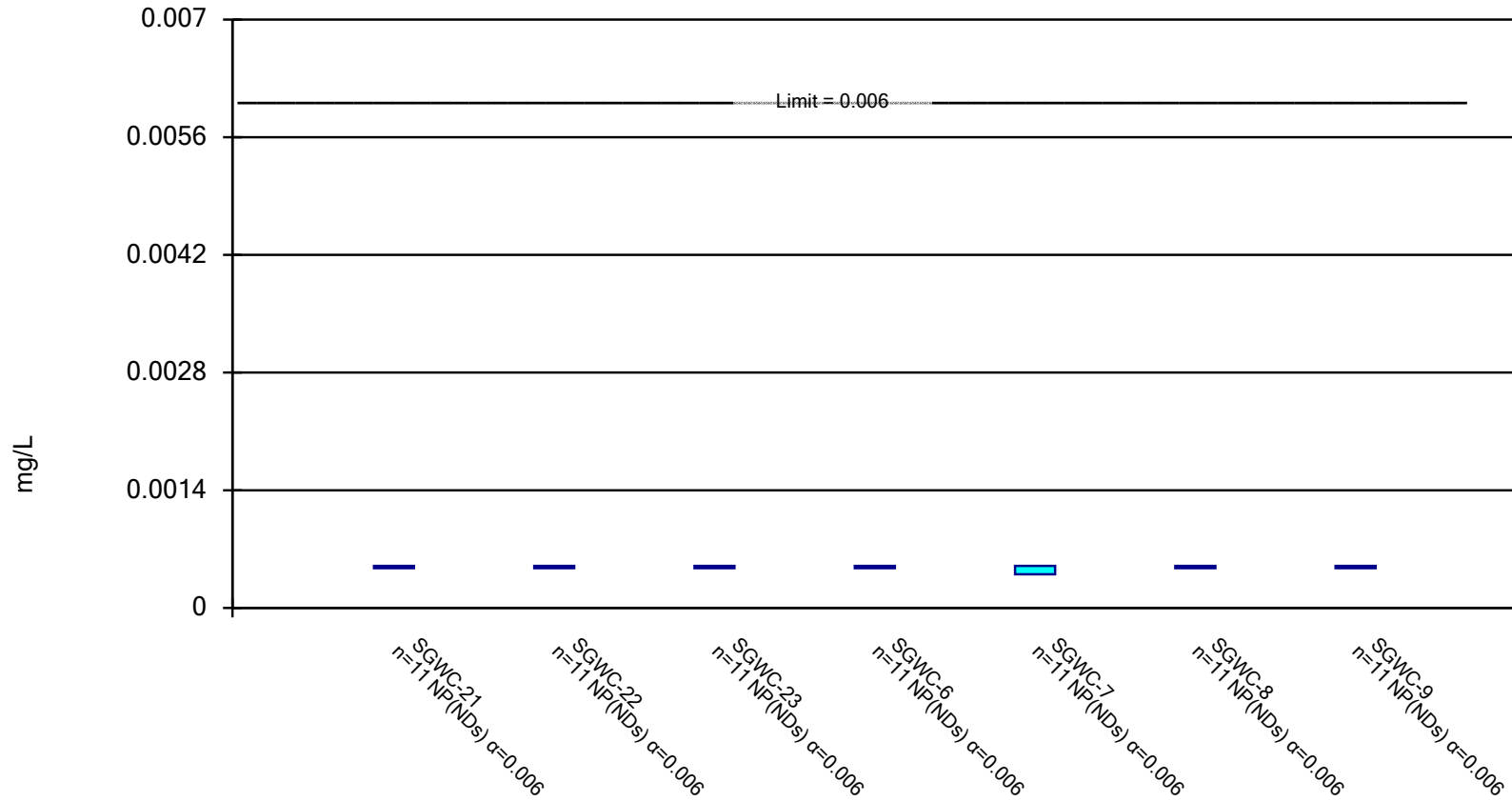
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

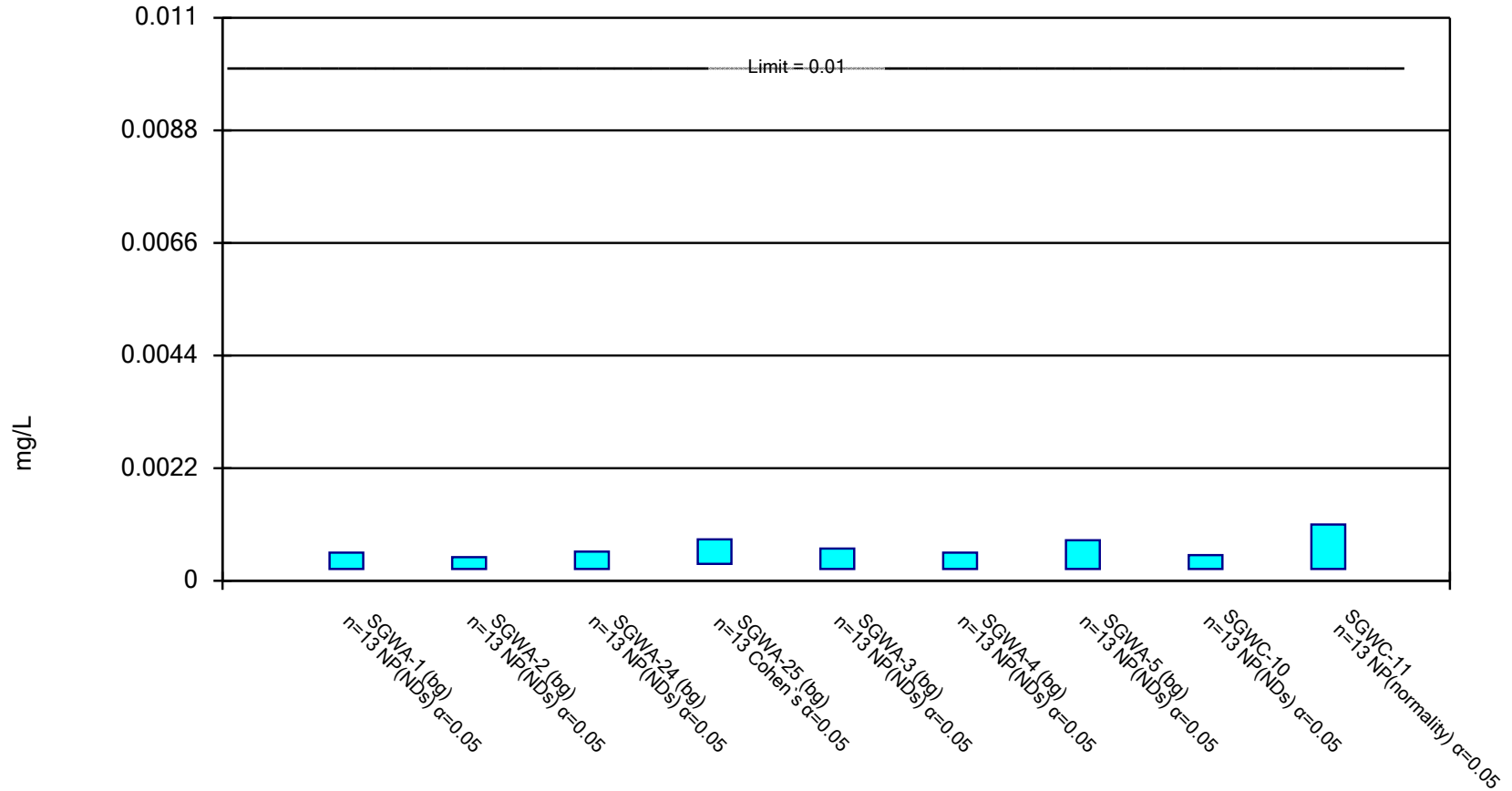
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Constituent: Antimony Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

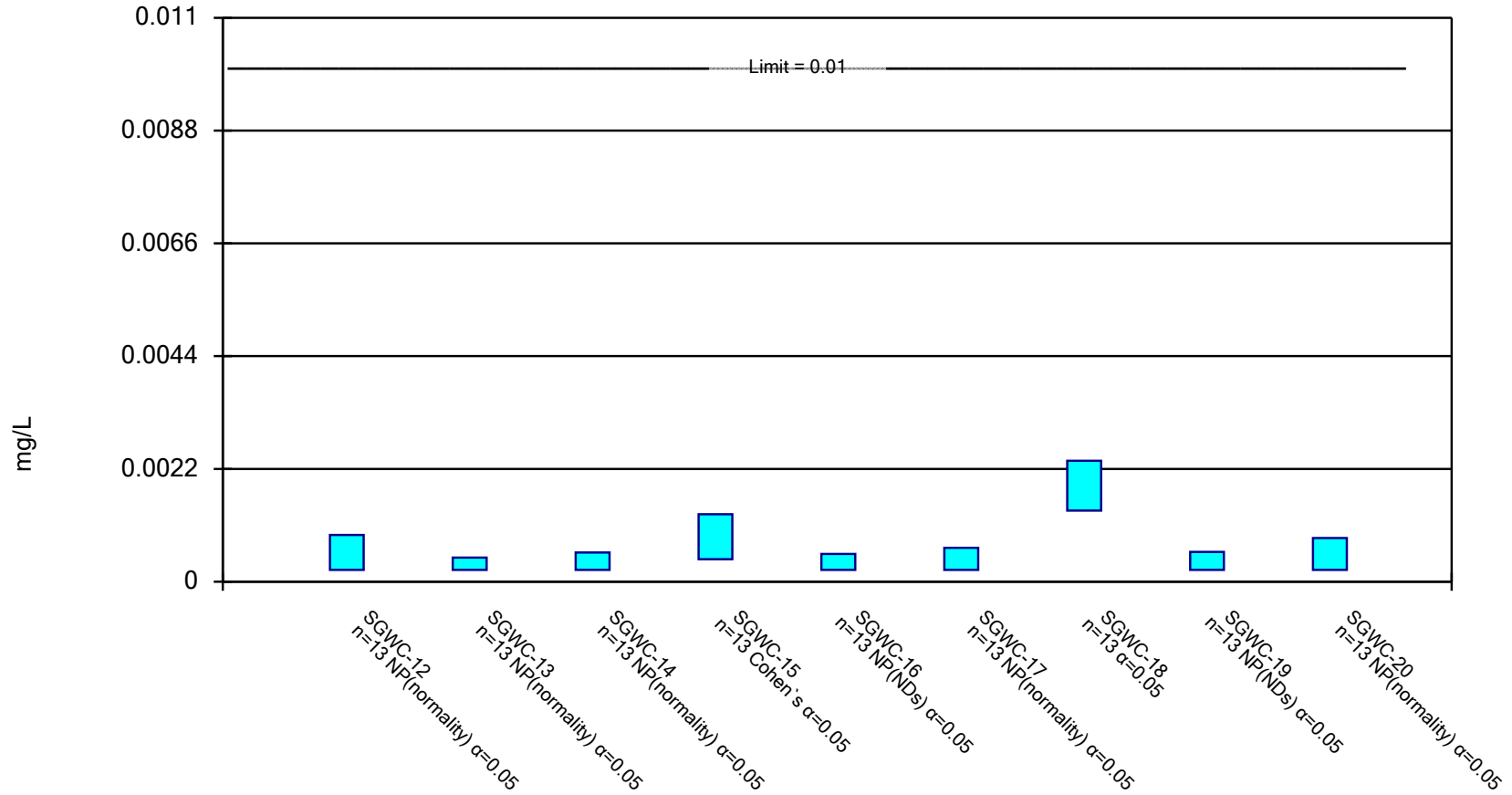
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

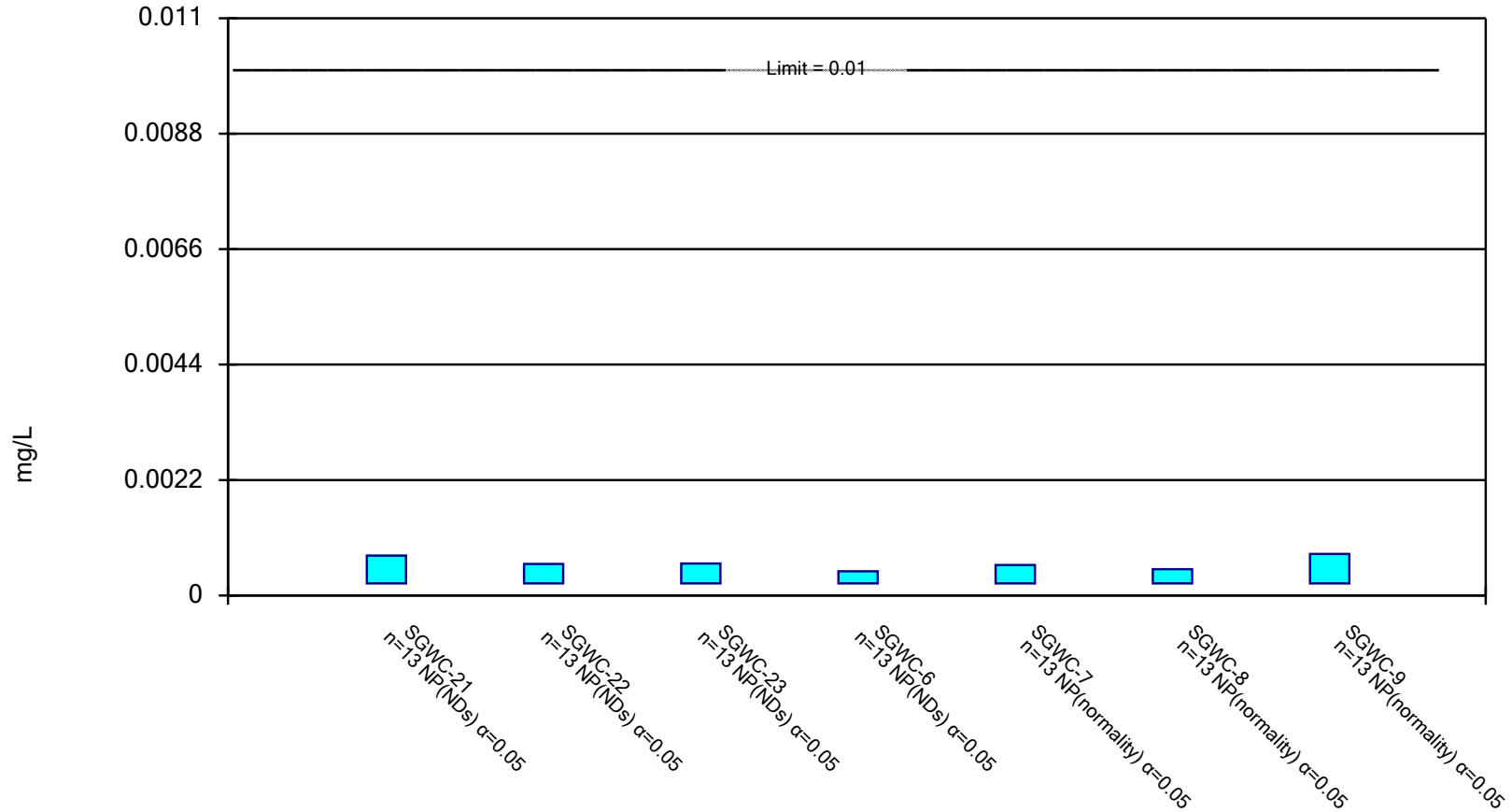


Constituent: Arsenic Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

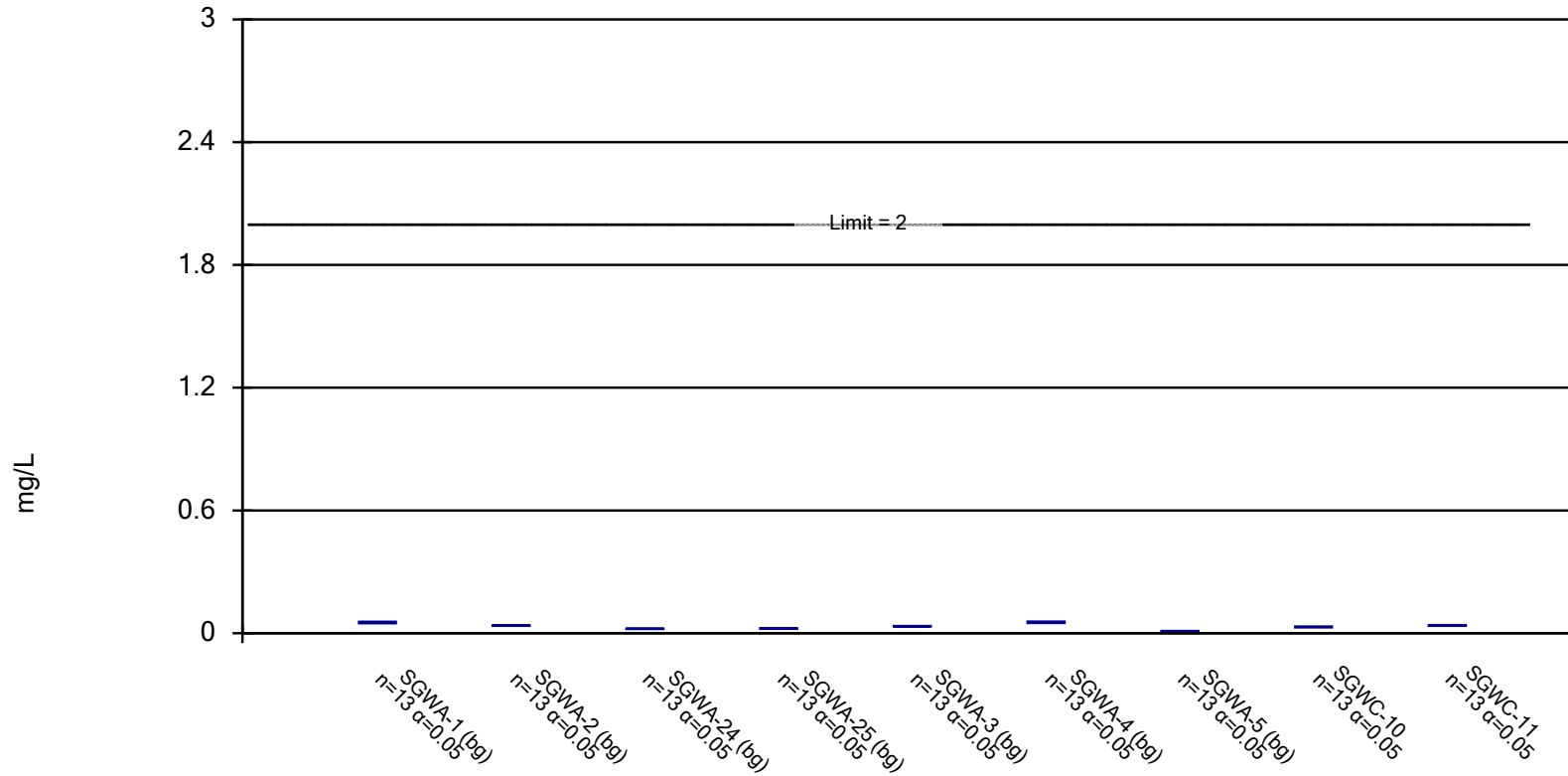


Constituent: Arsenic Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric Confidence Interval

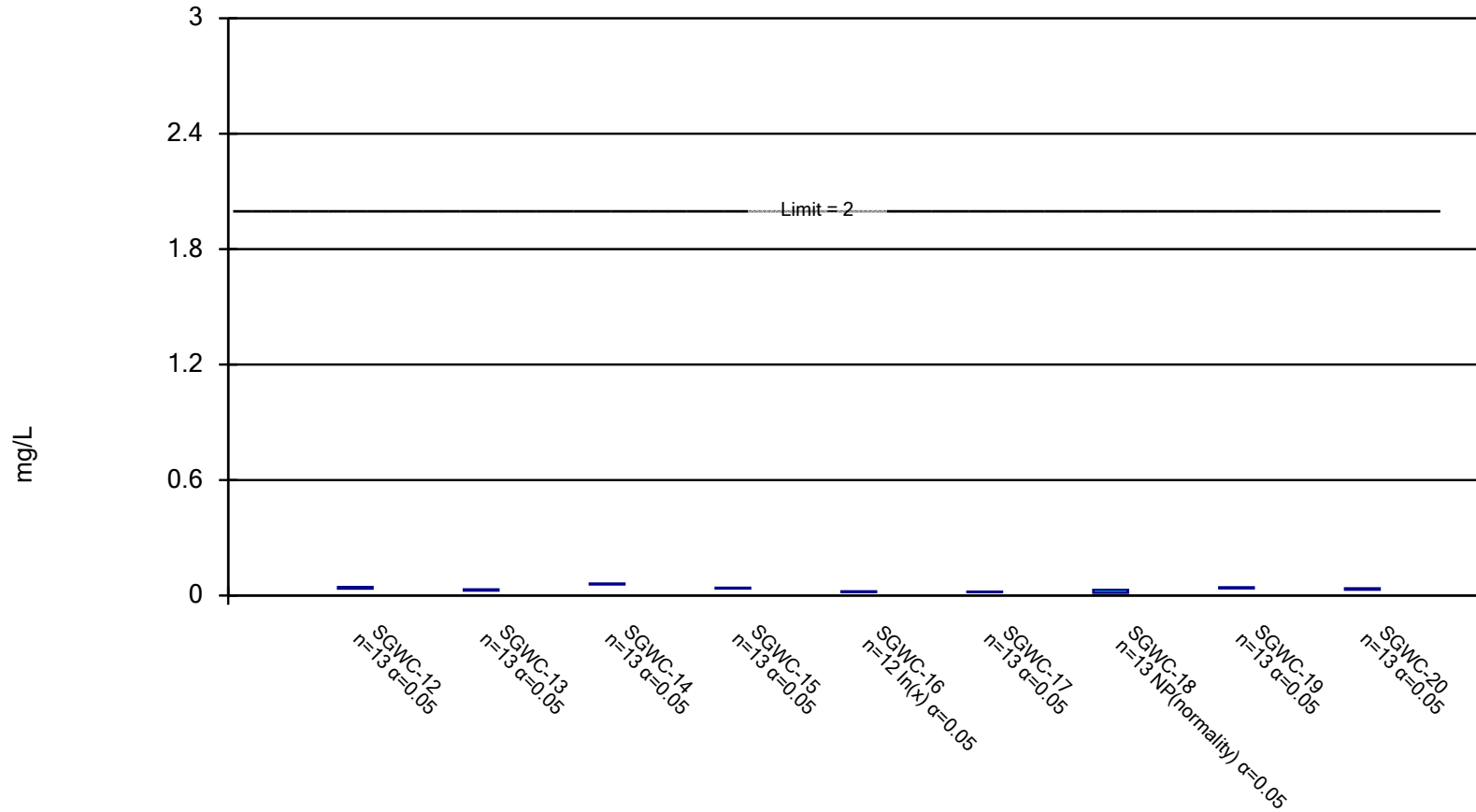
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

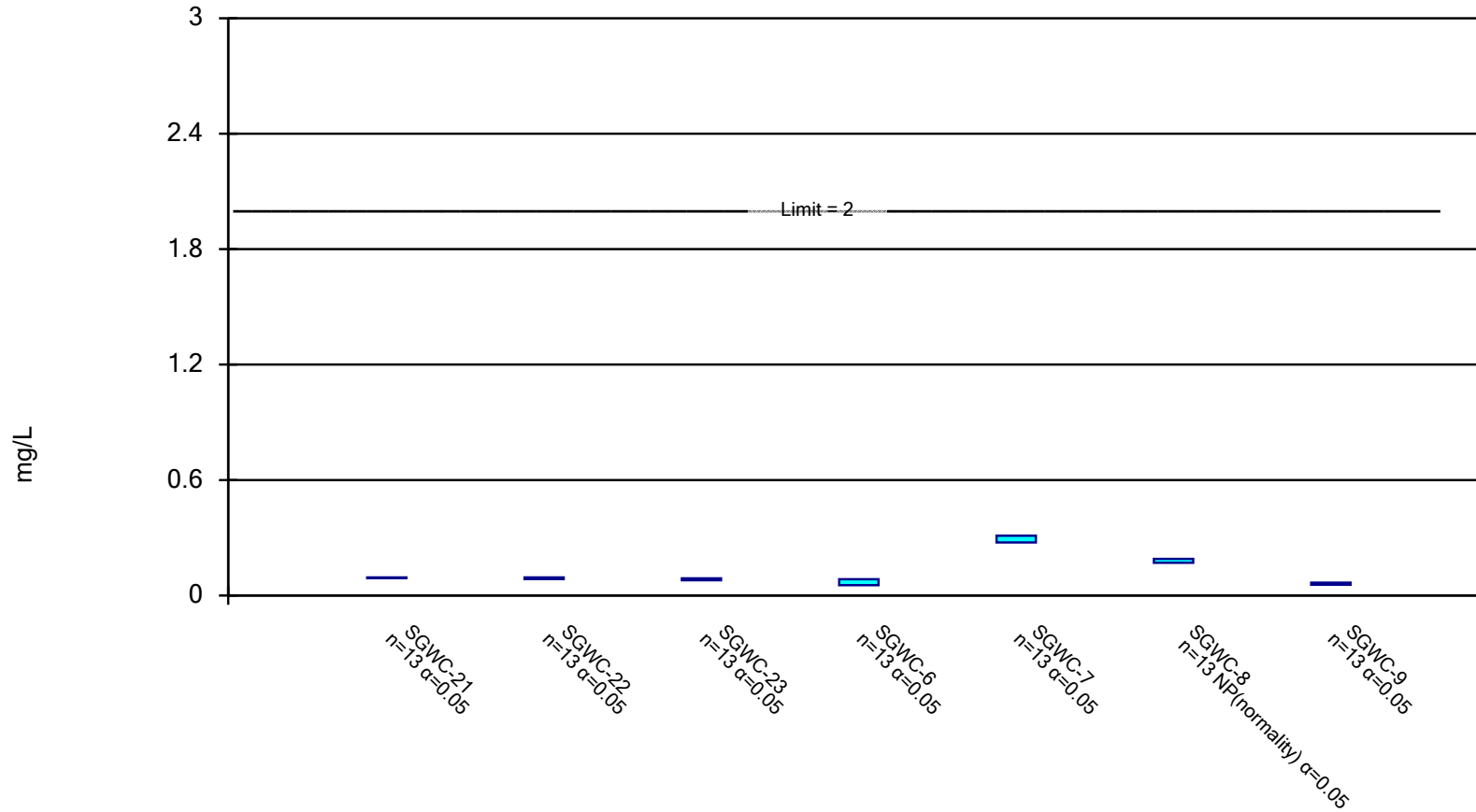
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

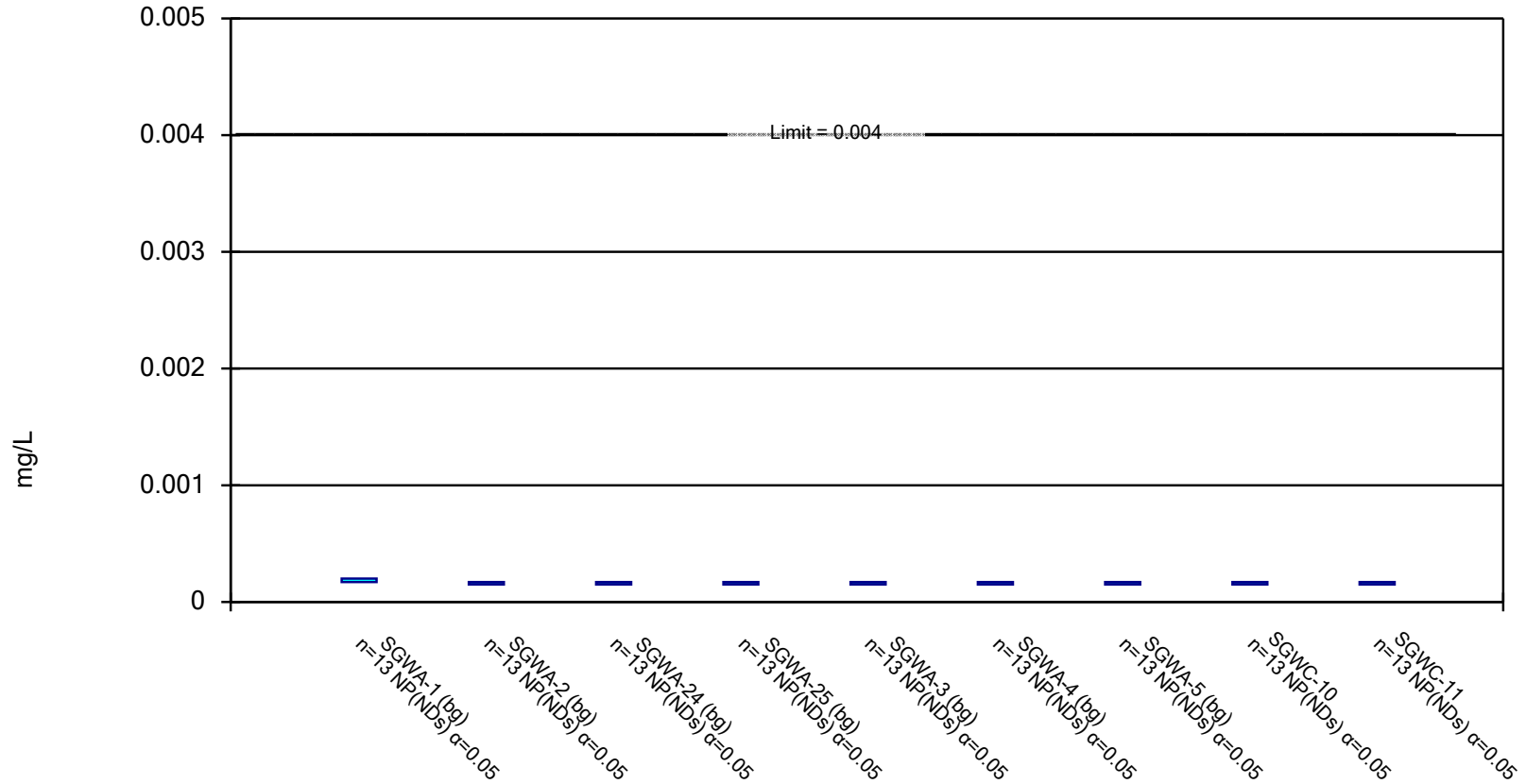
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/20/2019 9:48 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

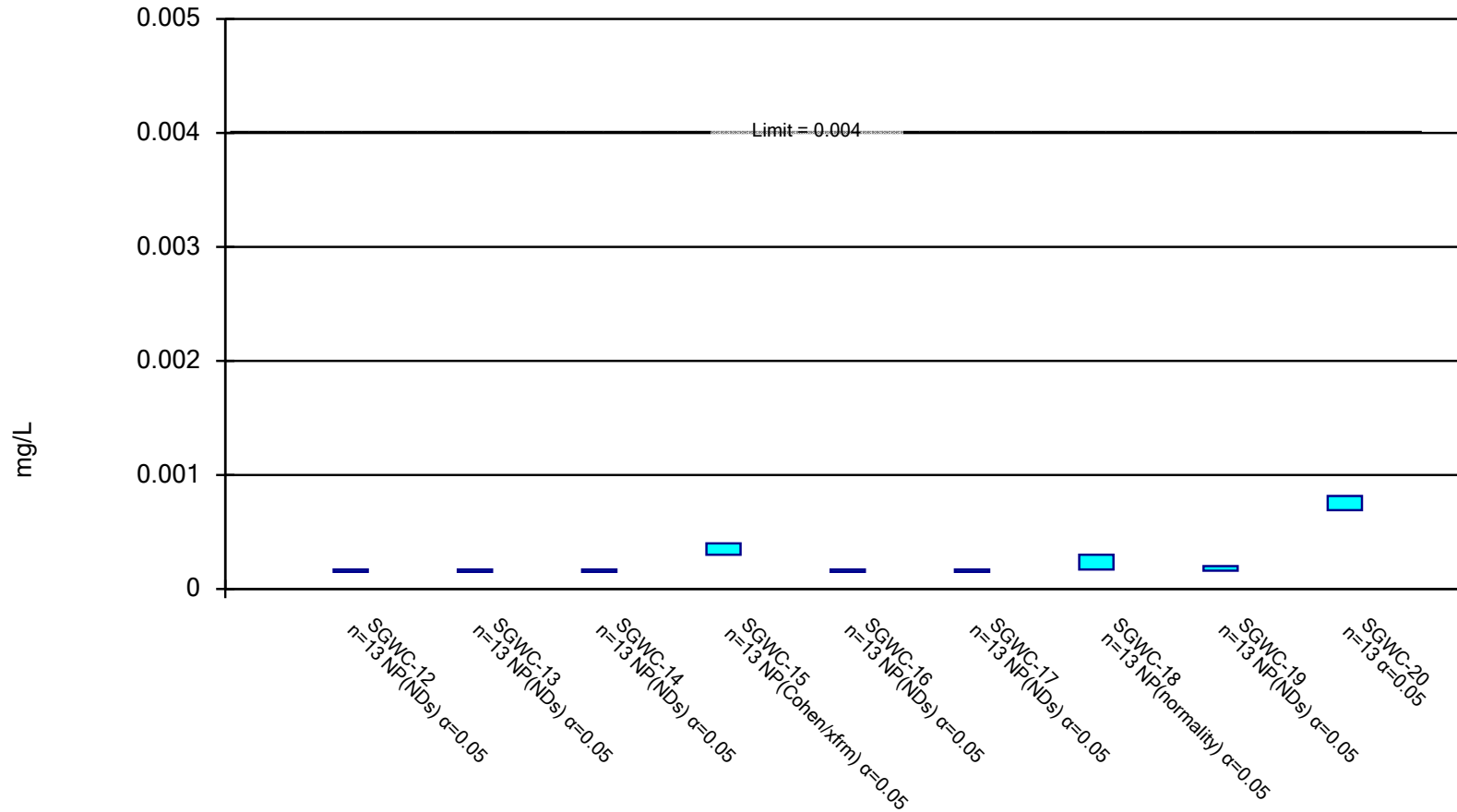


Constituent: Beryllium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

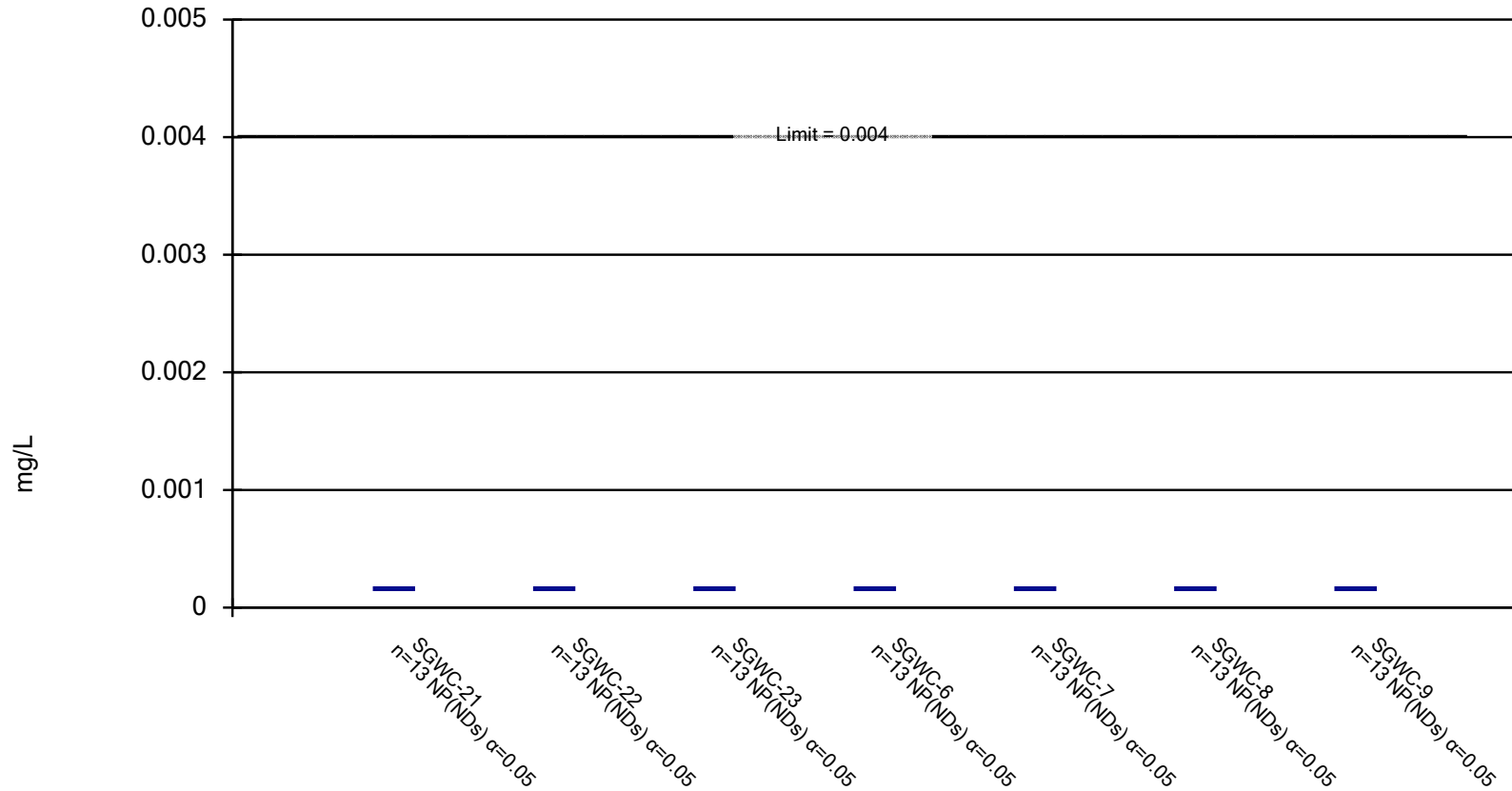


Constituent: Beryllium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

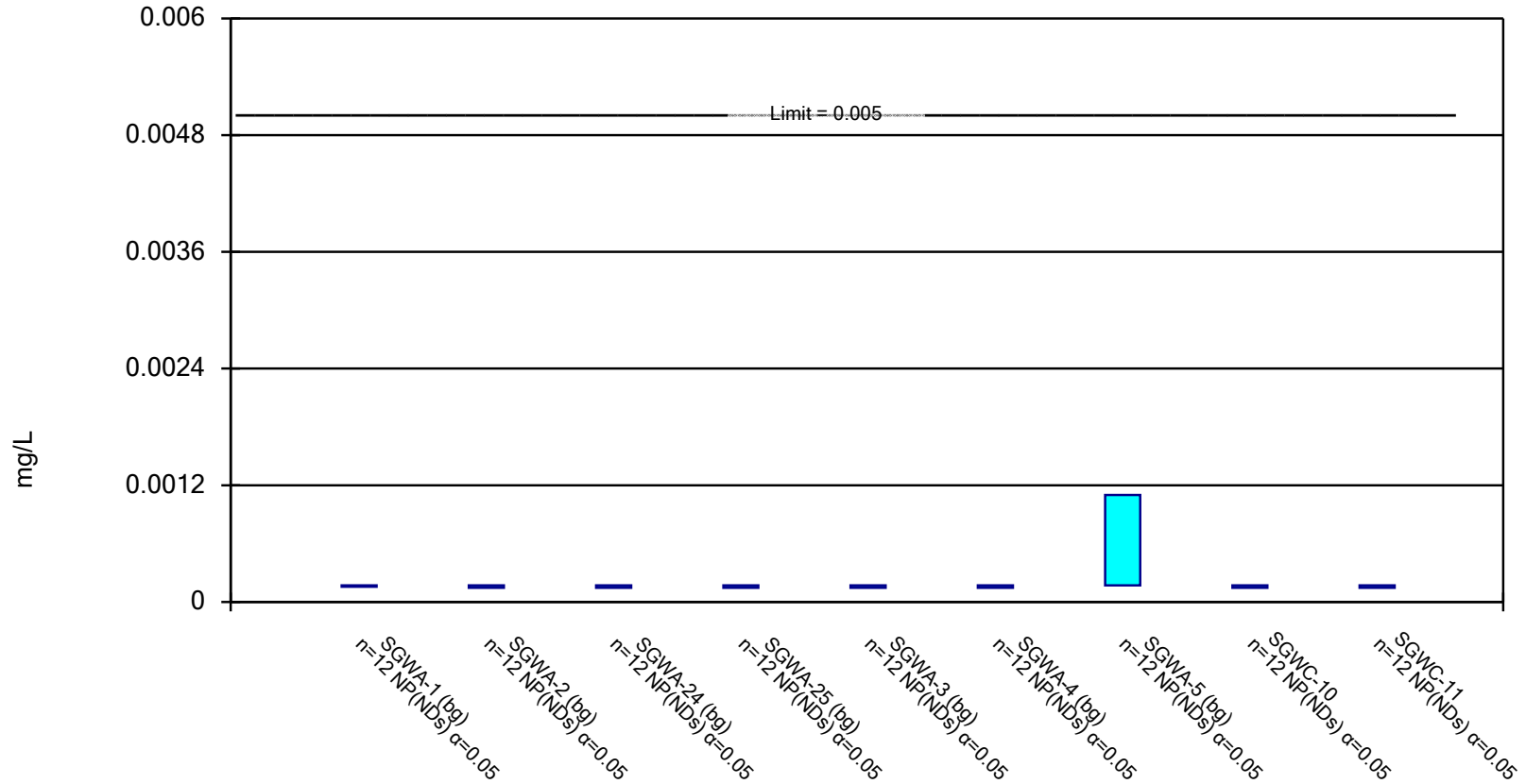
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Constituent: Beryllium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

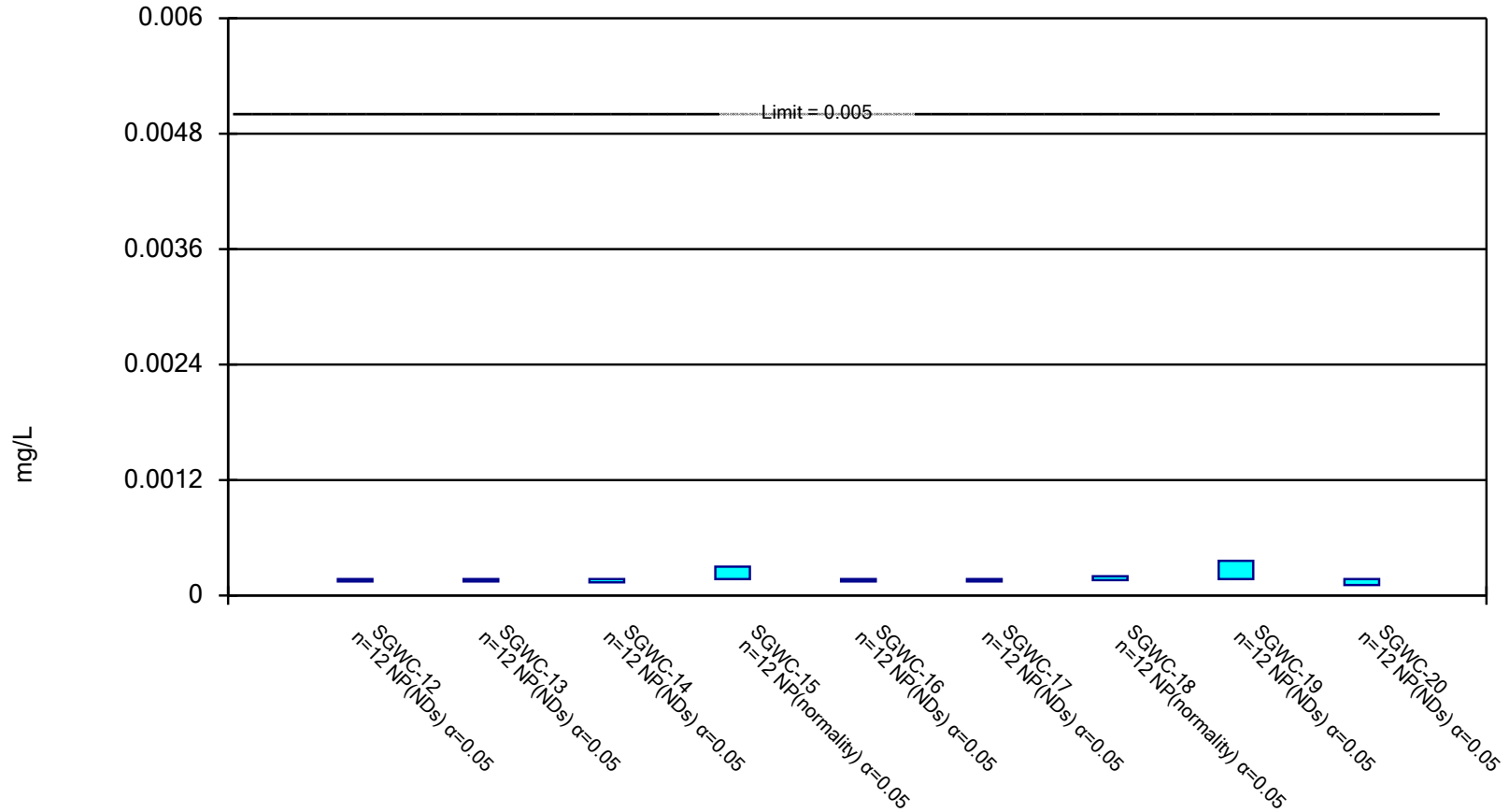


Constituent: Cadmium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

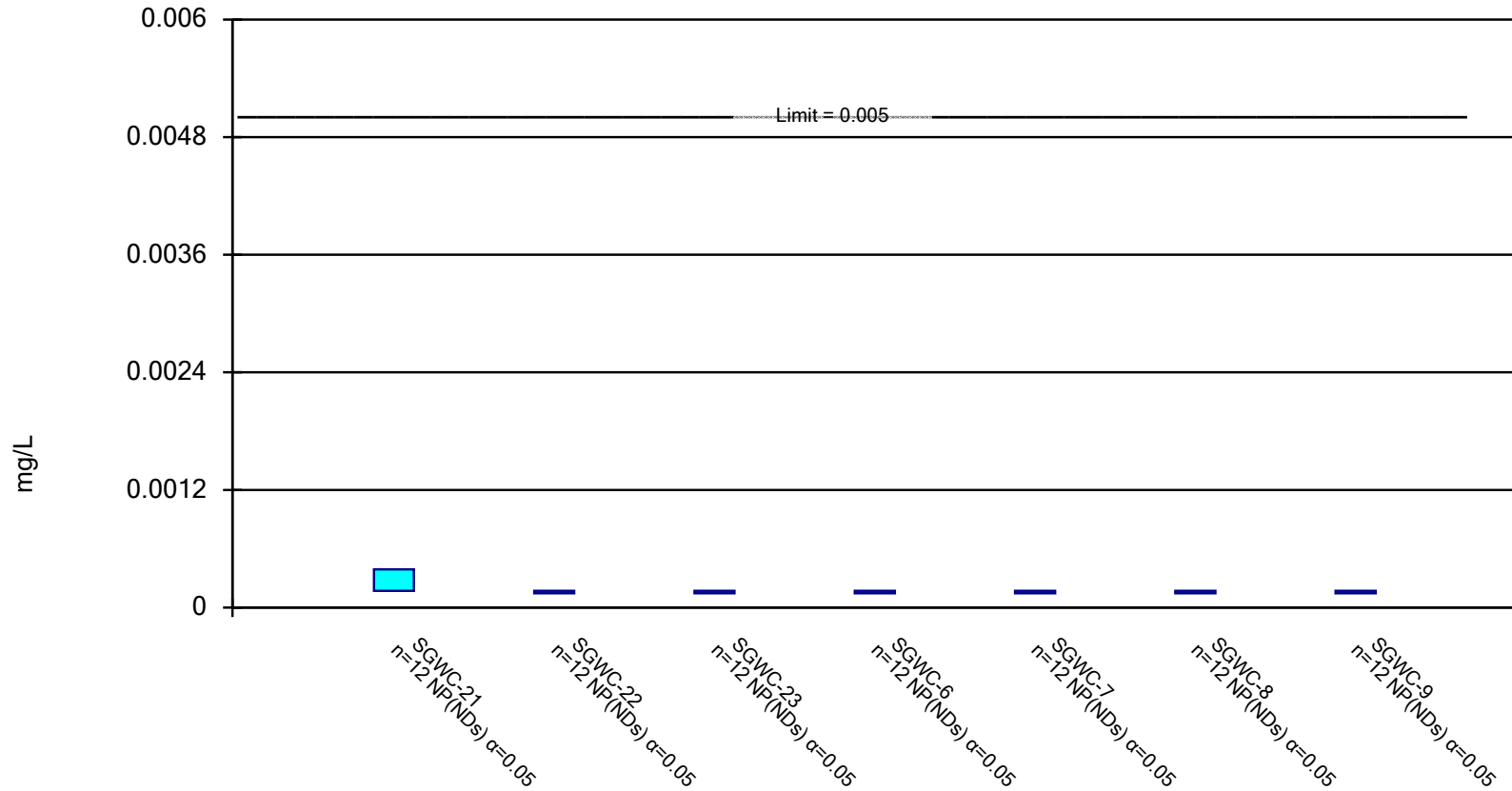
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

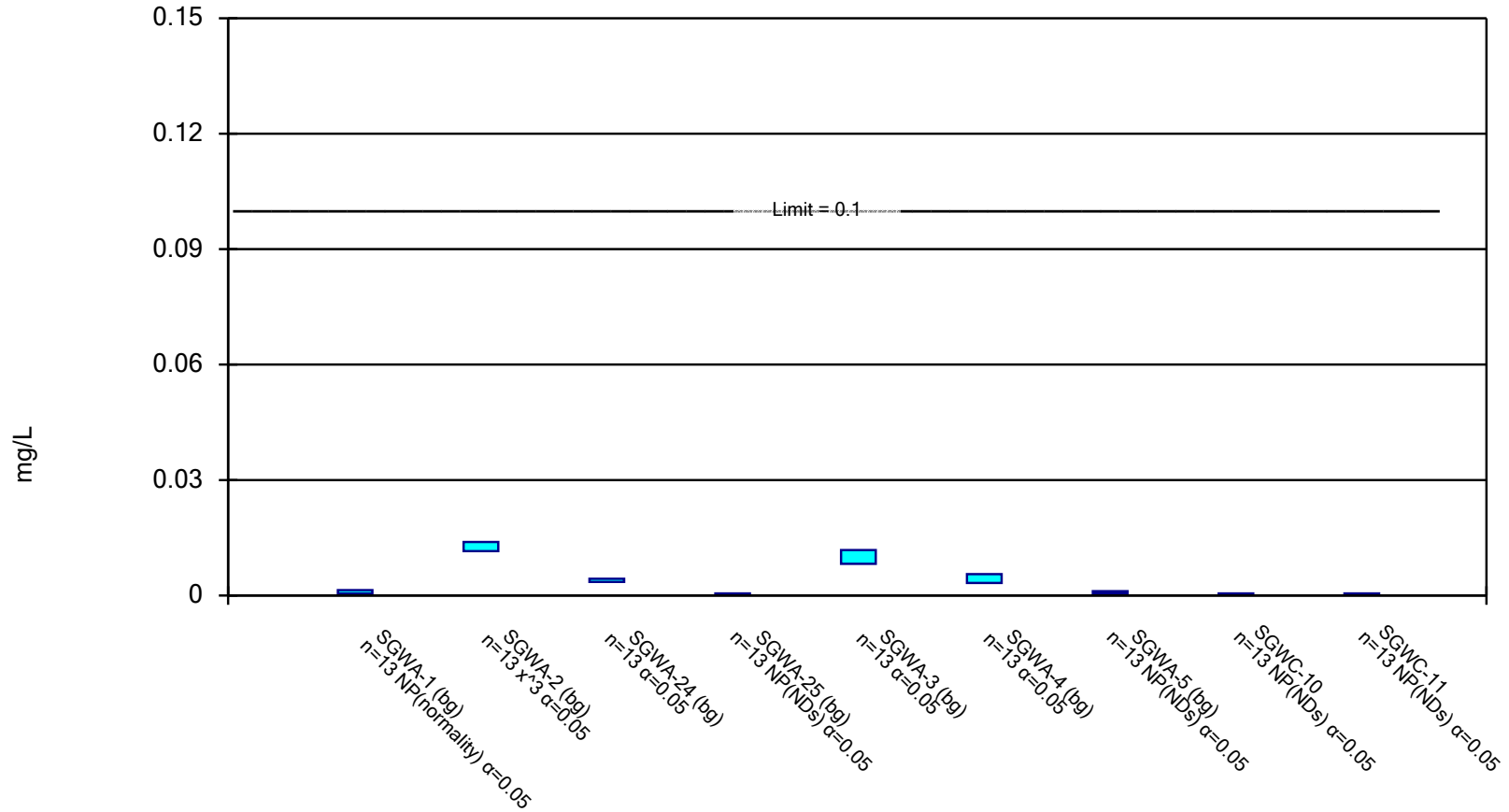
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

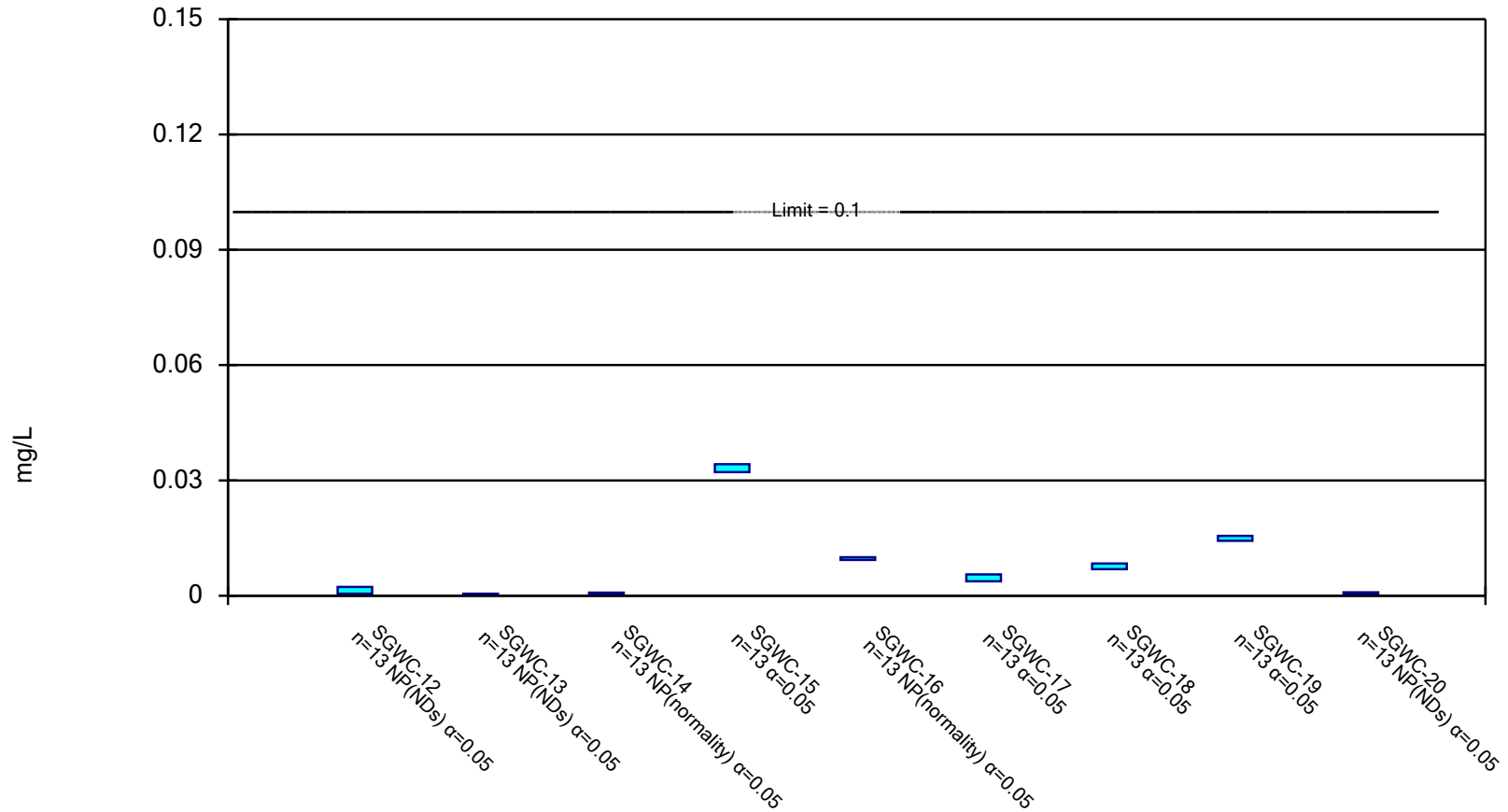
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

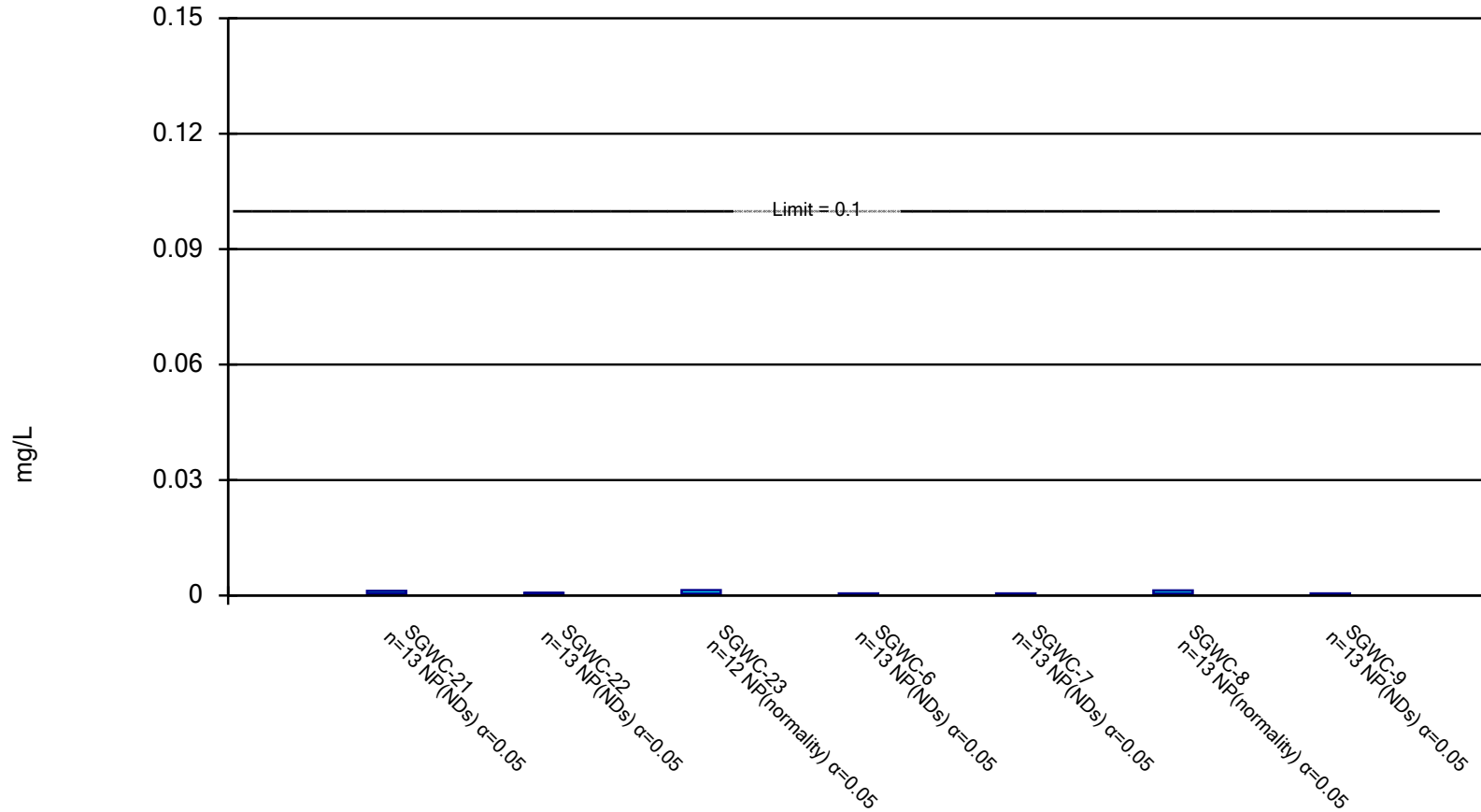


Constituent: Chromium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

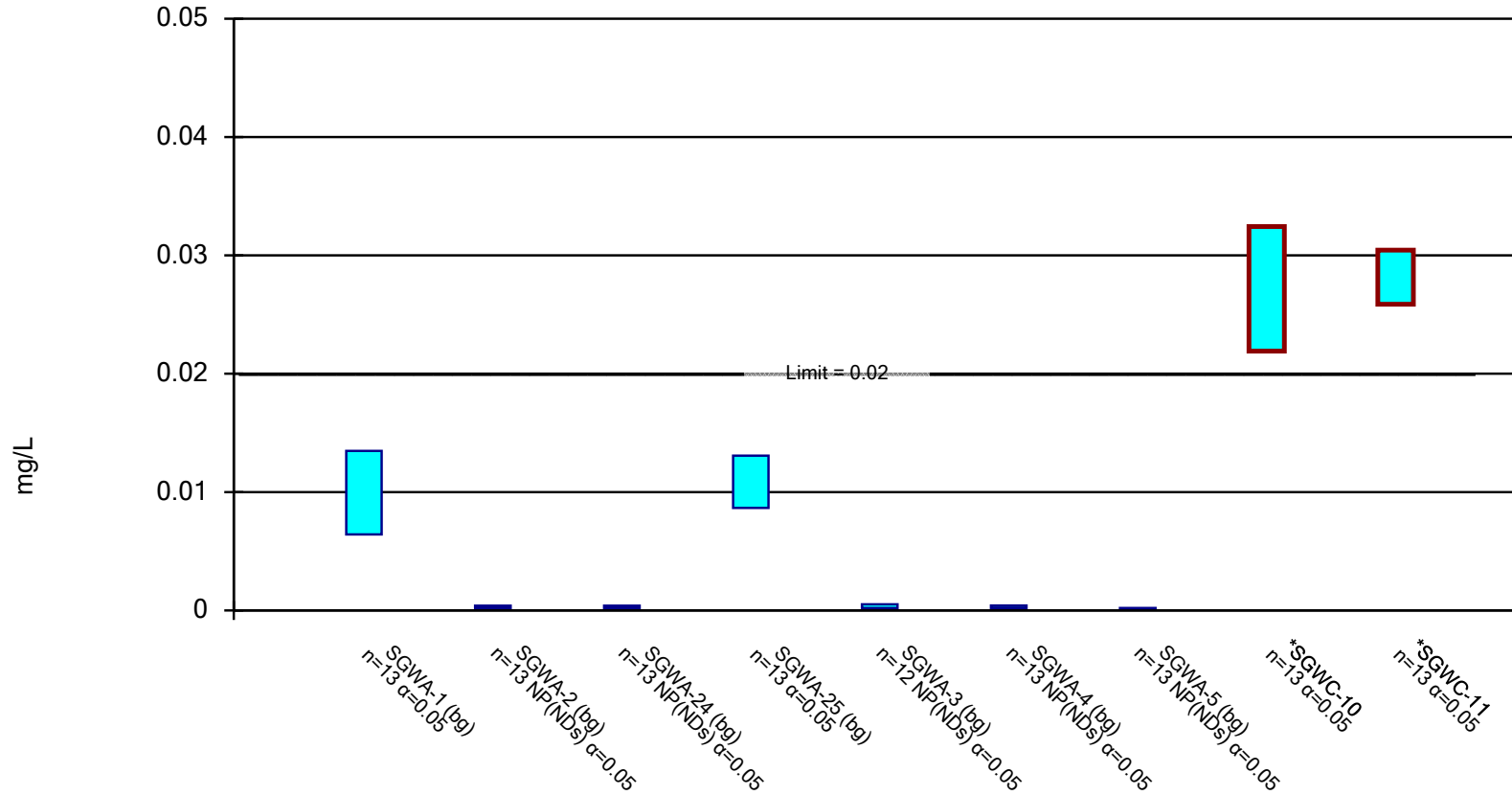
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Normality Test: Shapiro Wilk, alpha based on n.

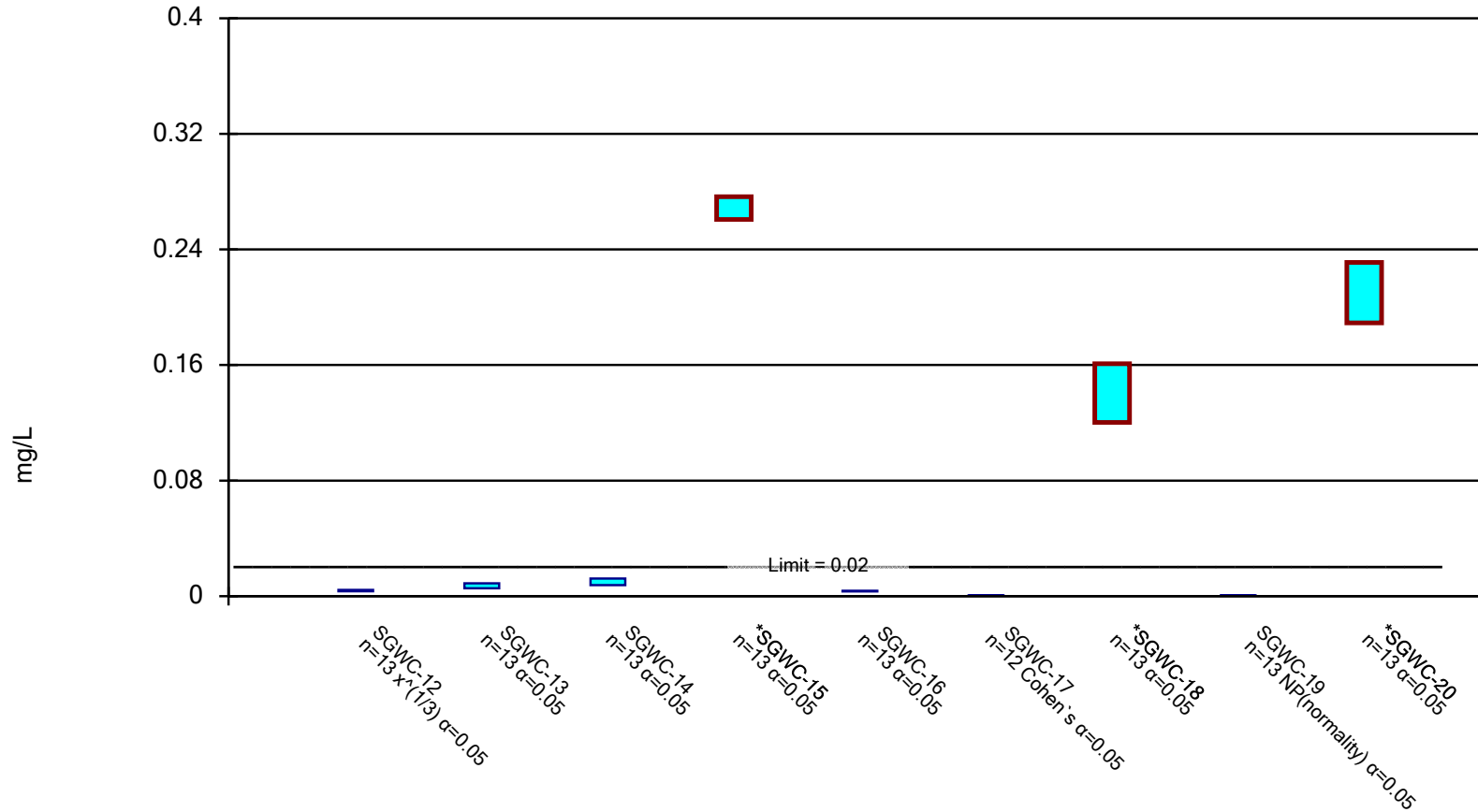


Constituent: Cobalt Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

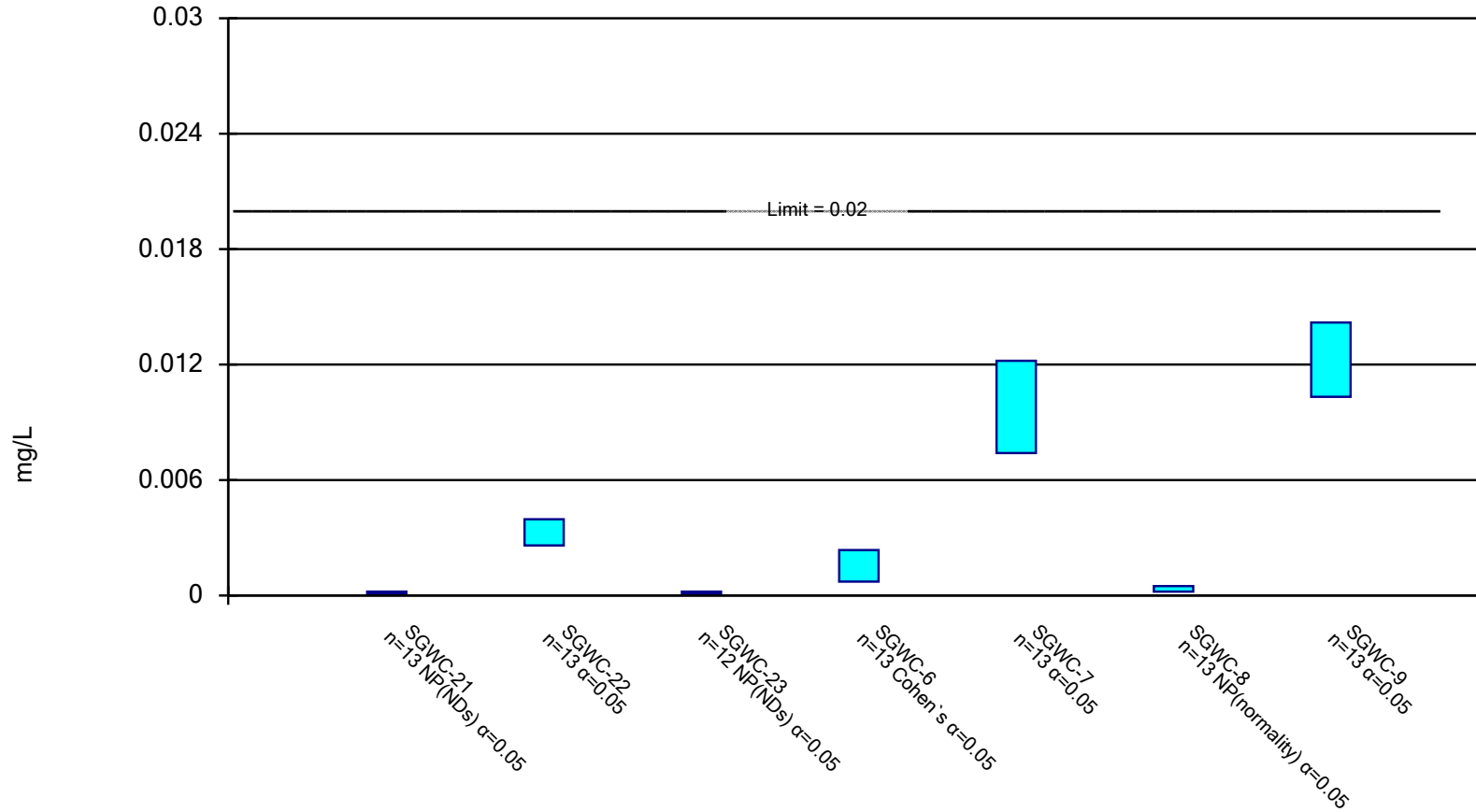
Compliance limit is exceeded.* Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

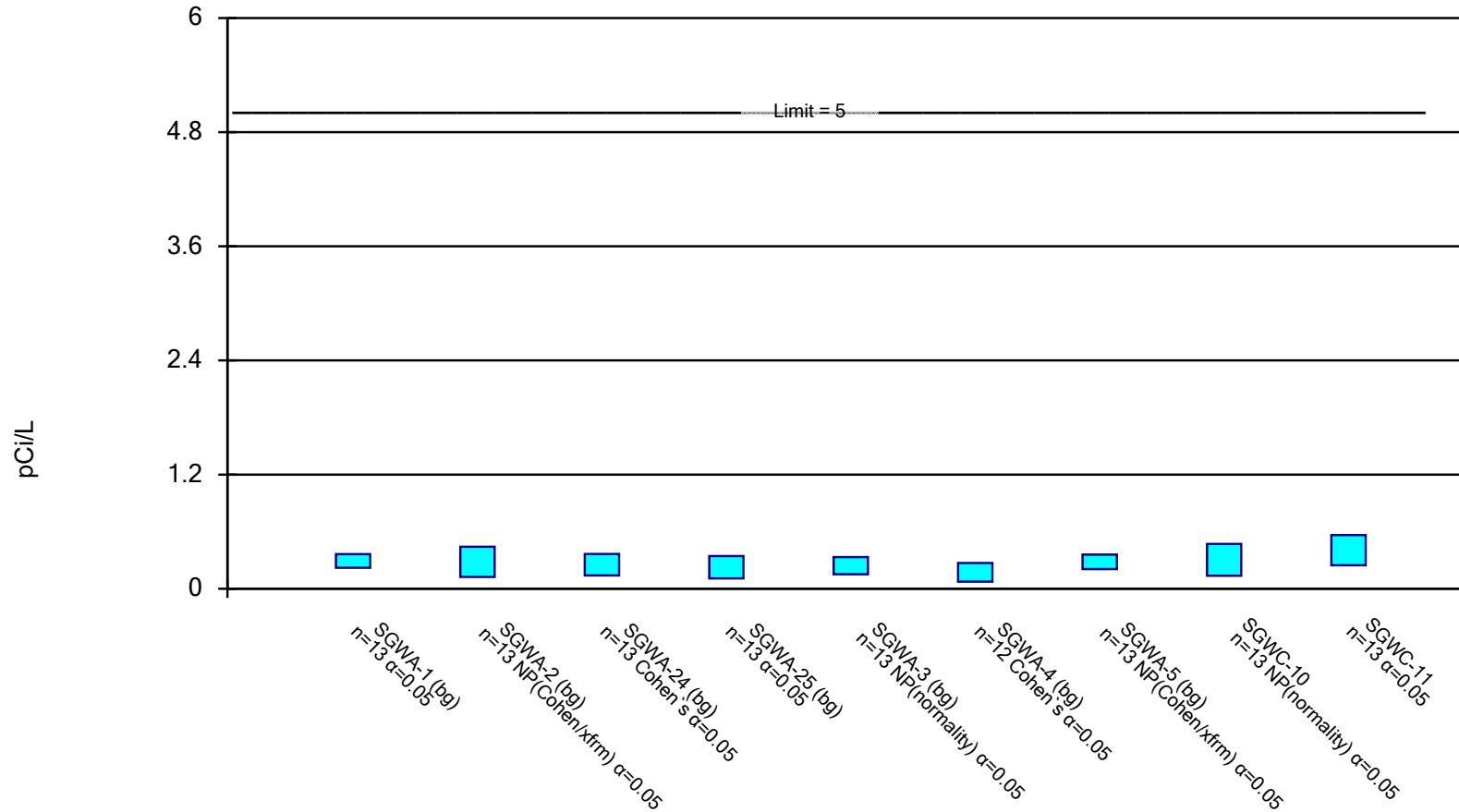
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

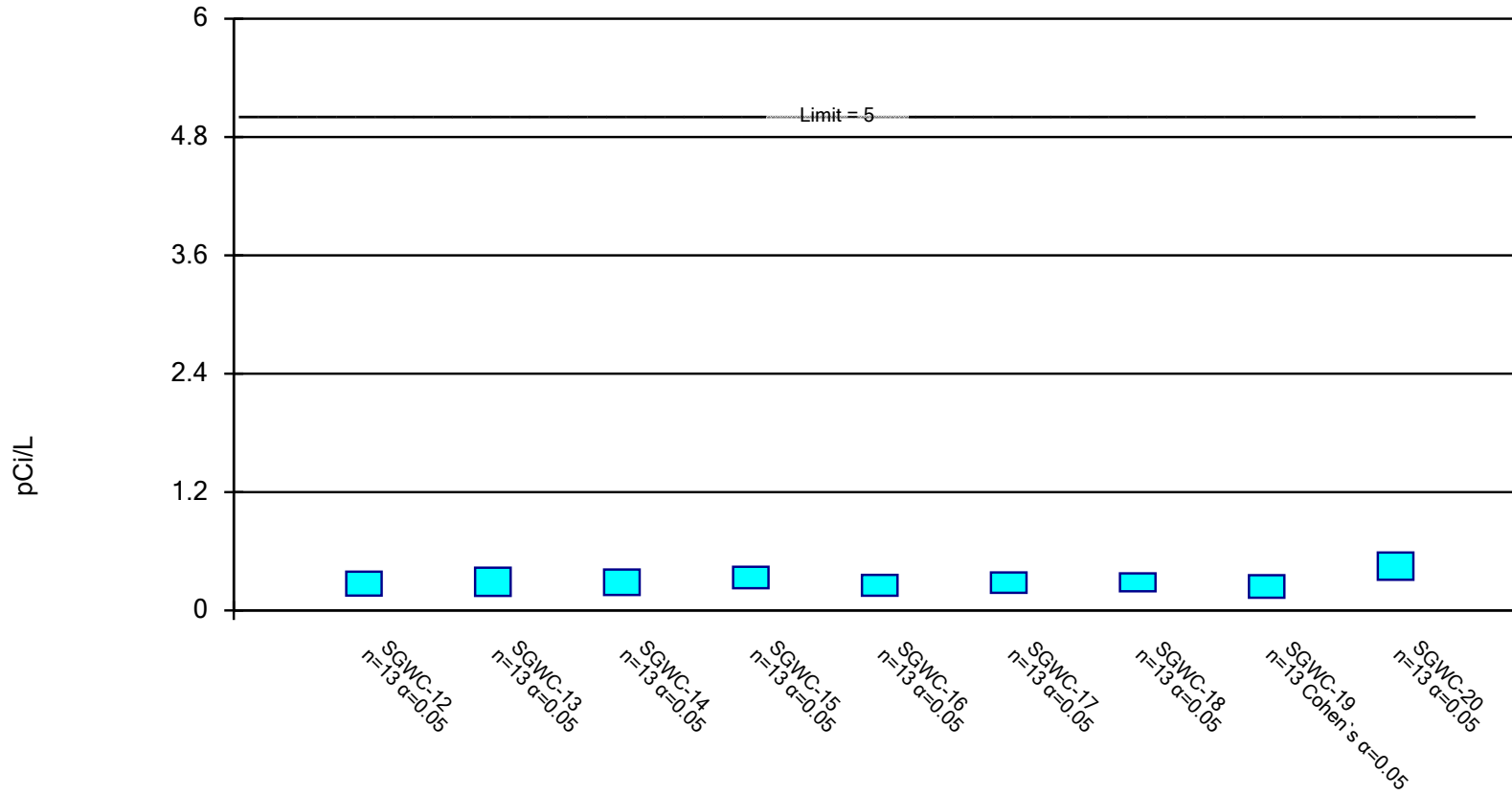


Constituent: Combined Radium 226 + 228 Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Int

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric Confidence Interval

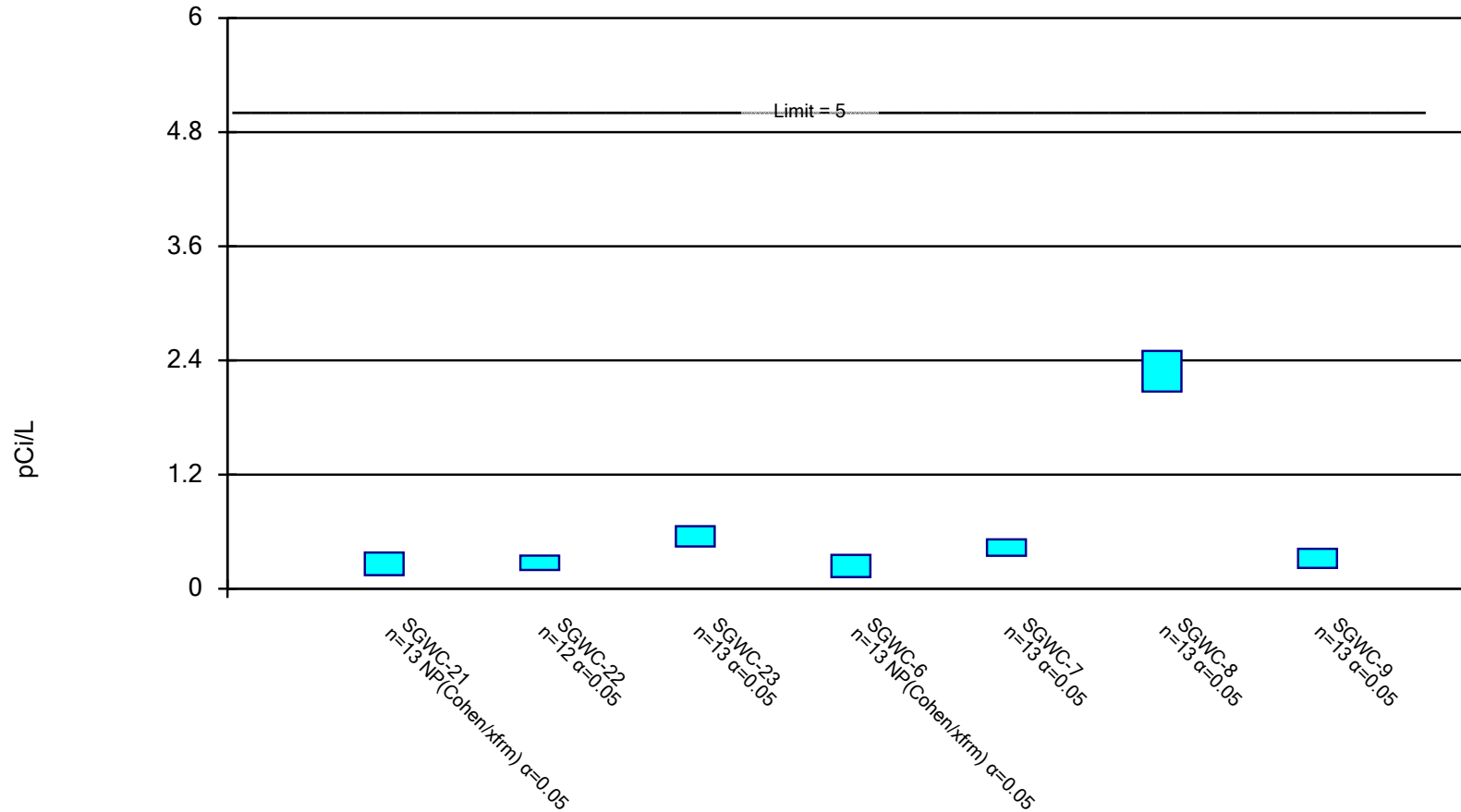
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Int
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

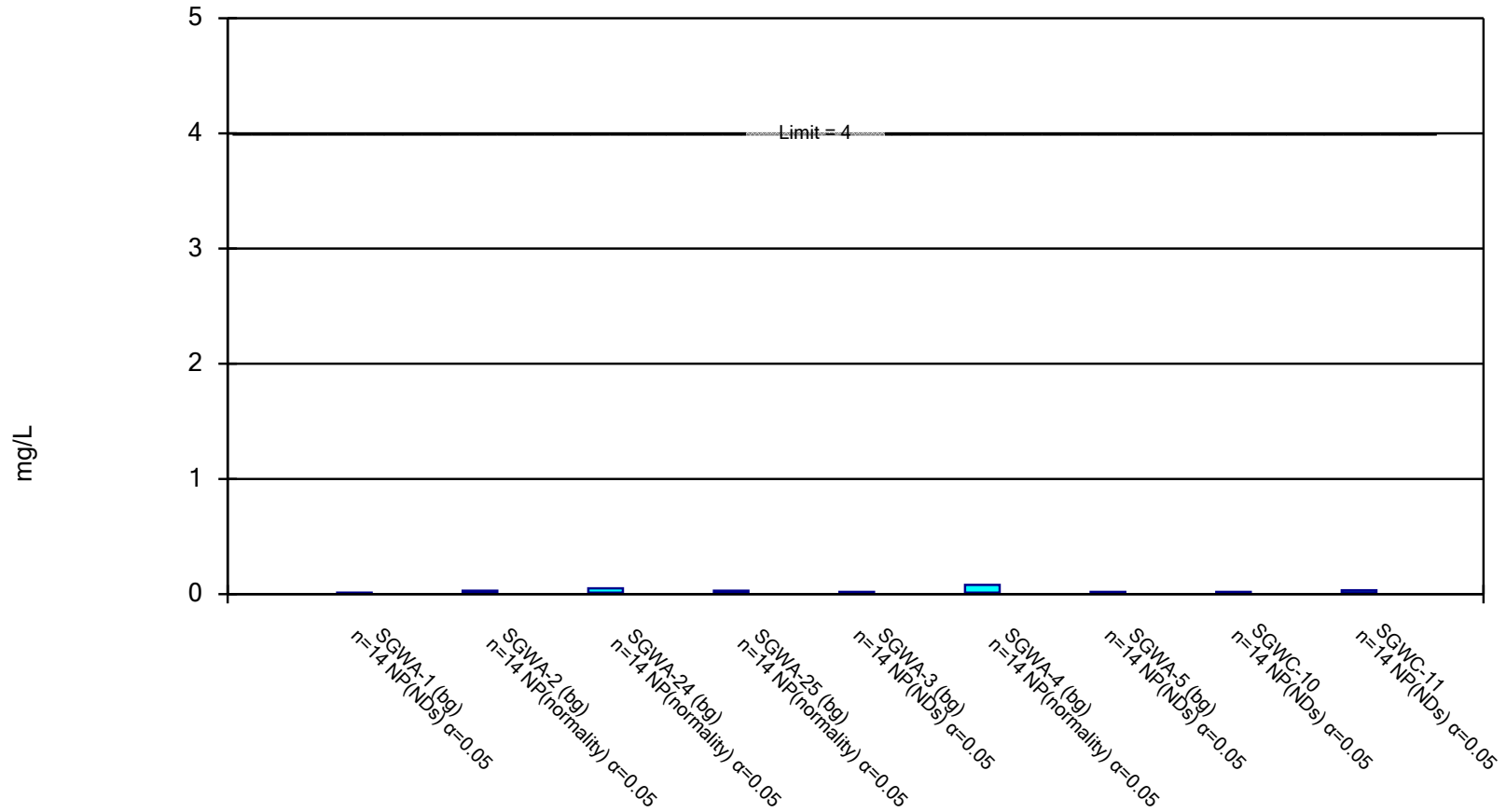
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Int
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

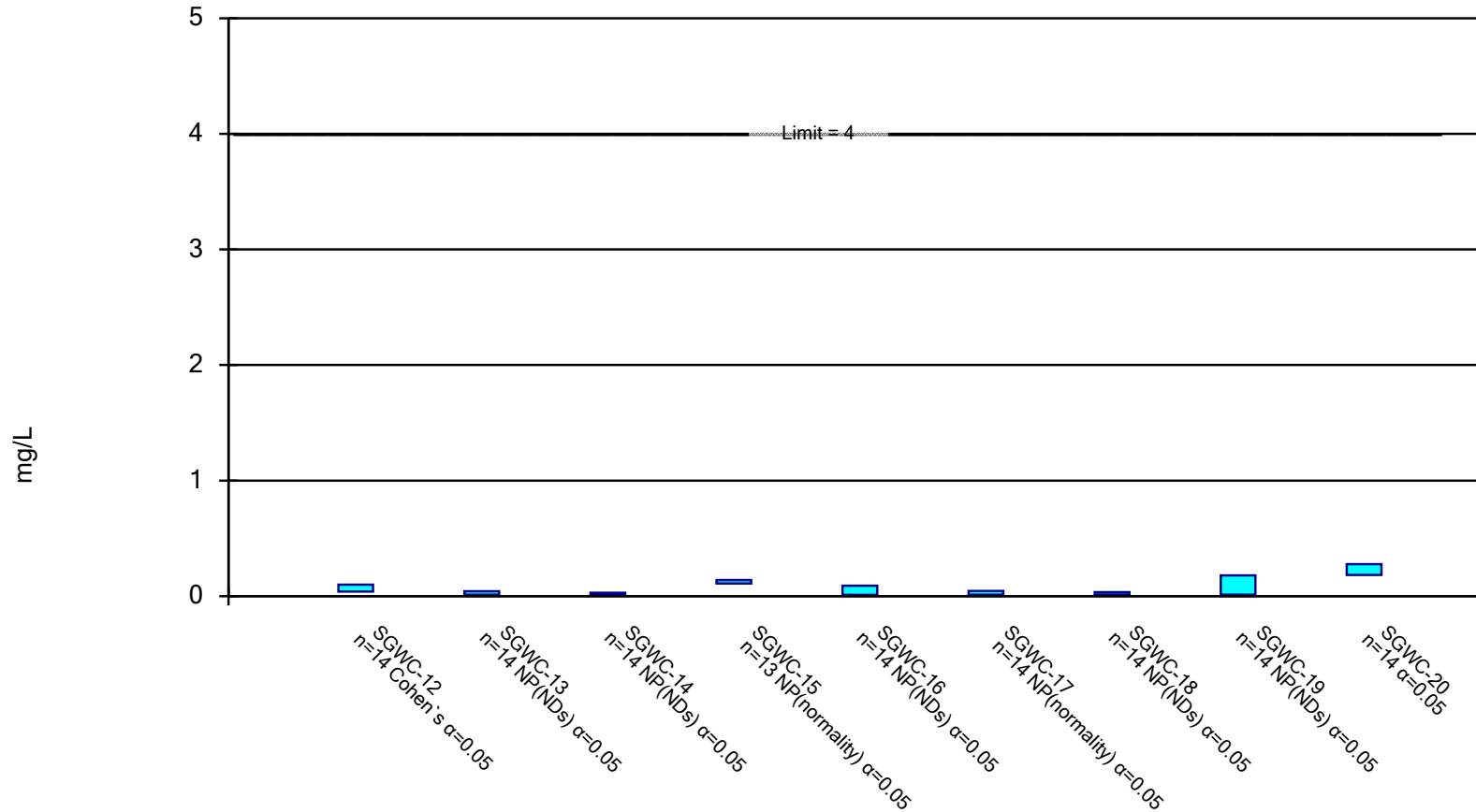
Compliance Limit is not exceeded.



Constituent: Fluoride Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

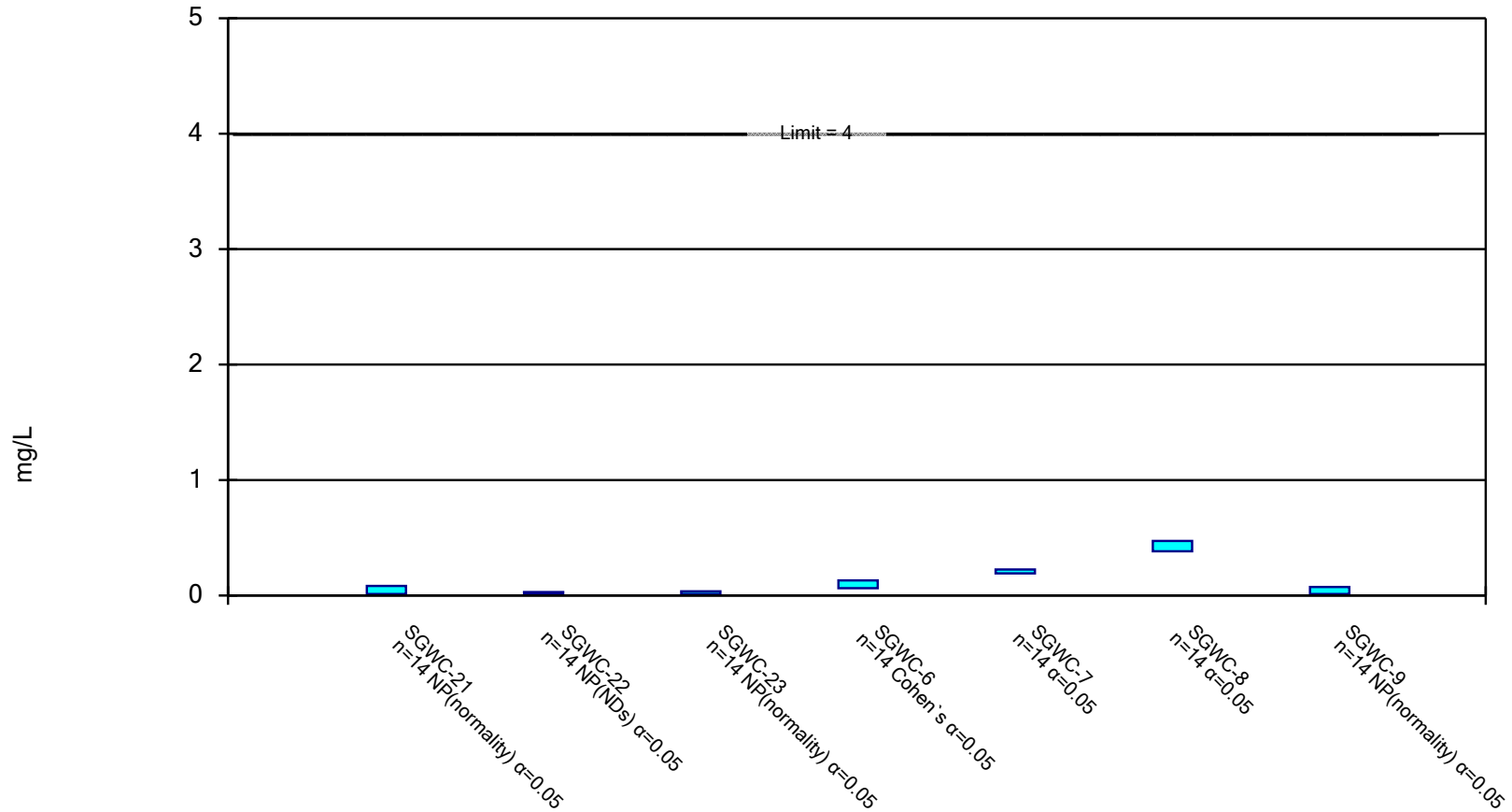


Constituent: Fluoride Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

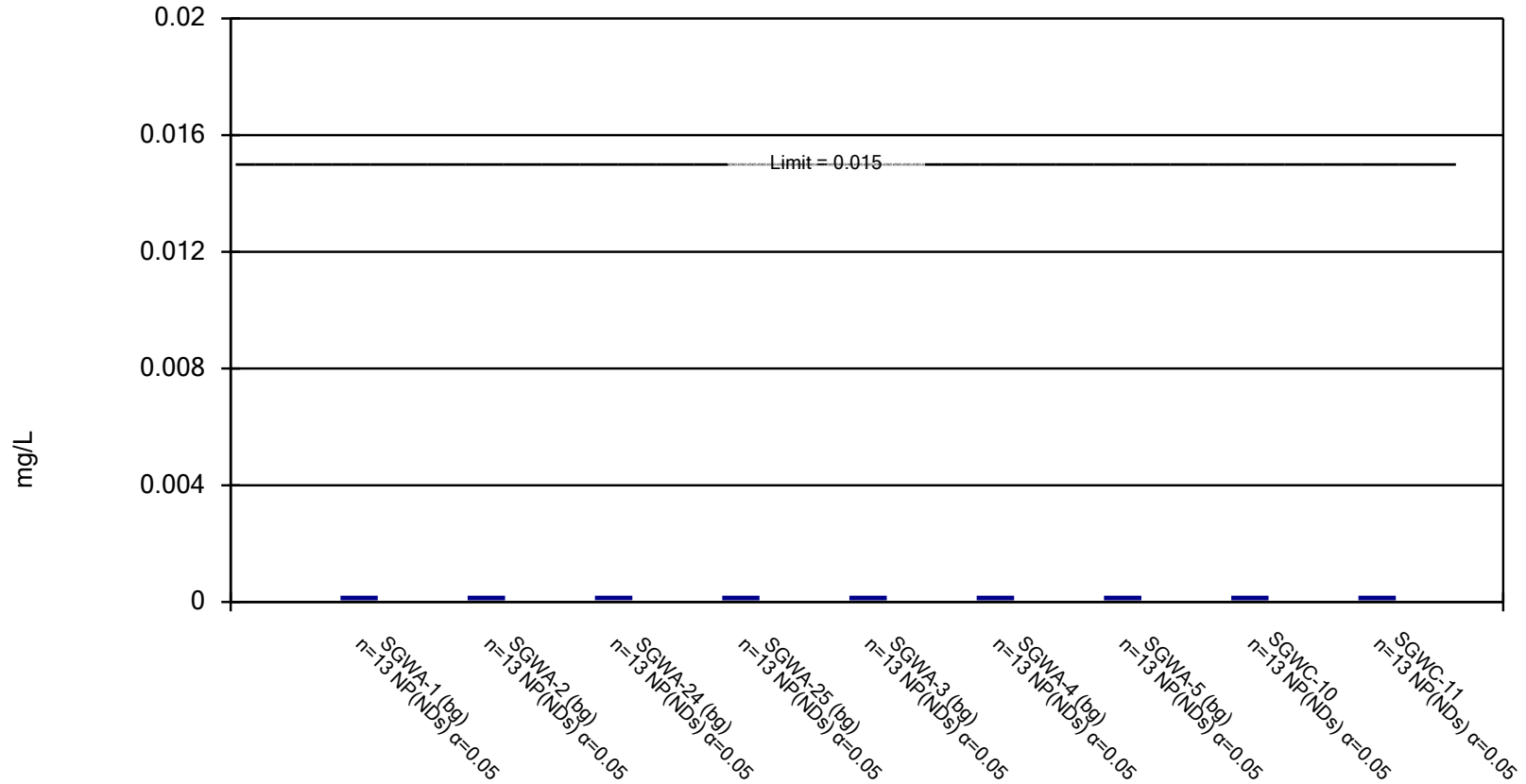


Constituent: Fluoride Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

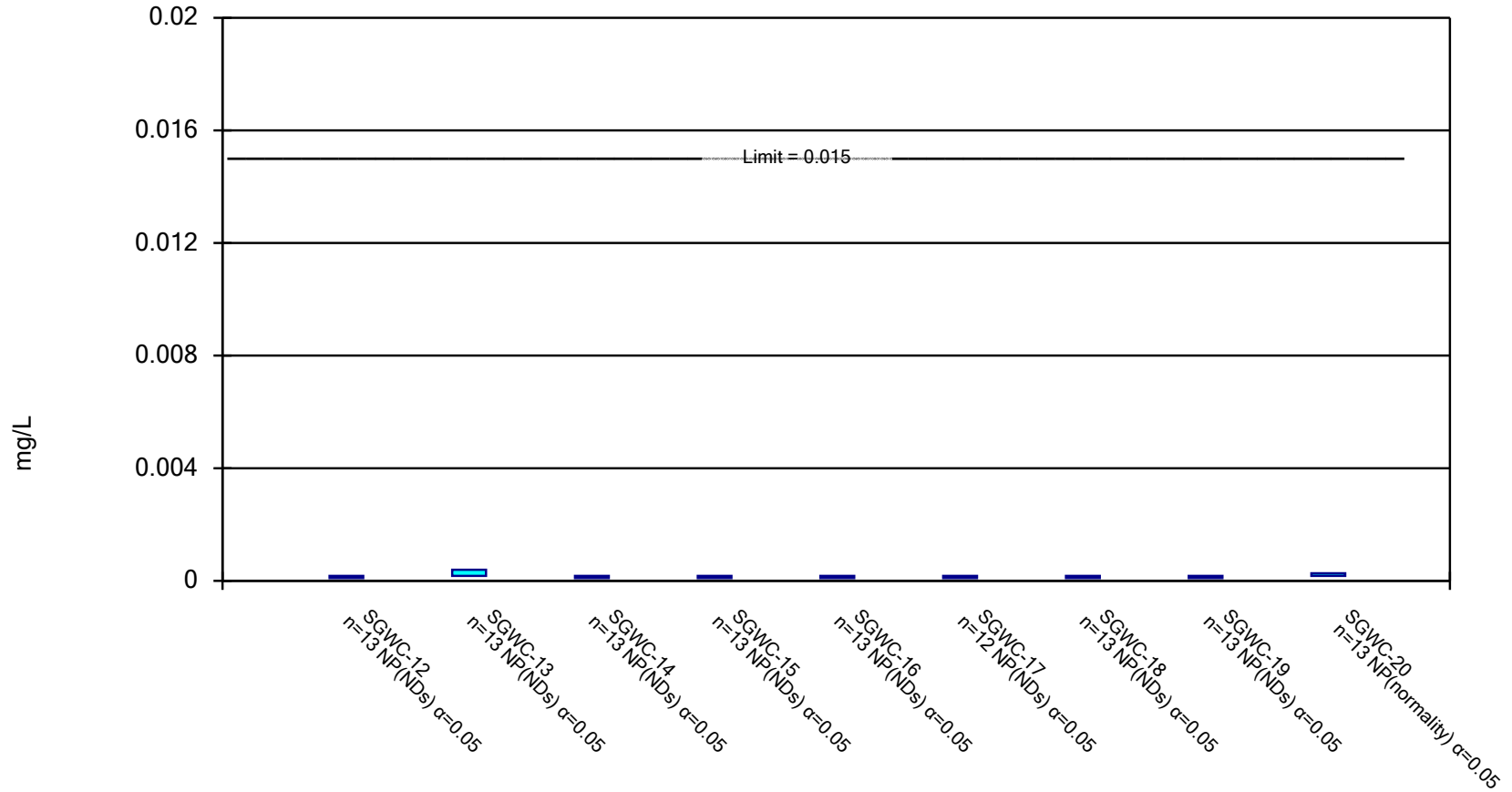


Constituent: Lead Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

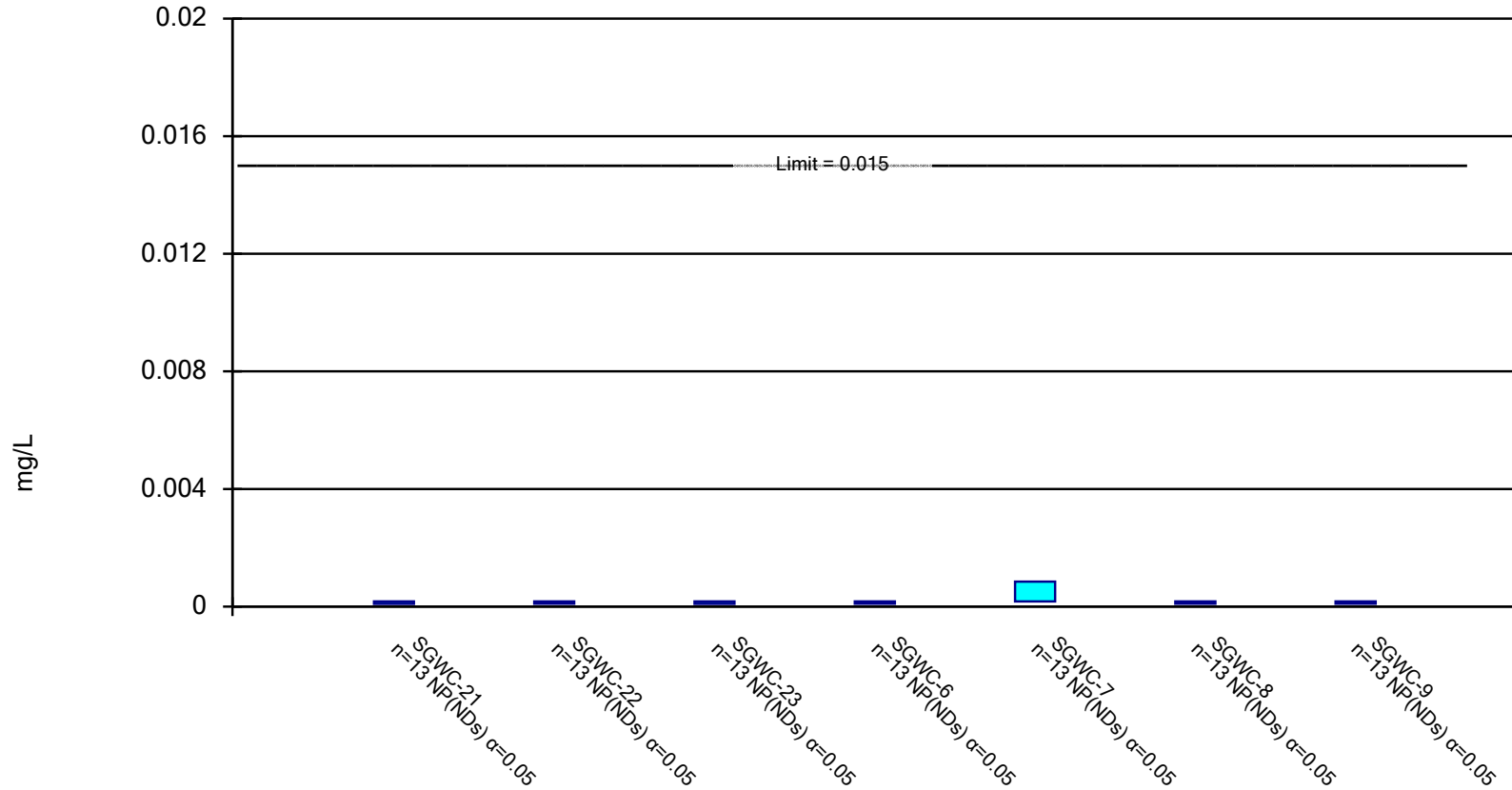


Constituent: Lead Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

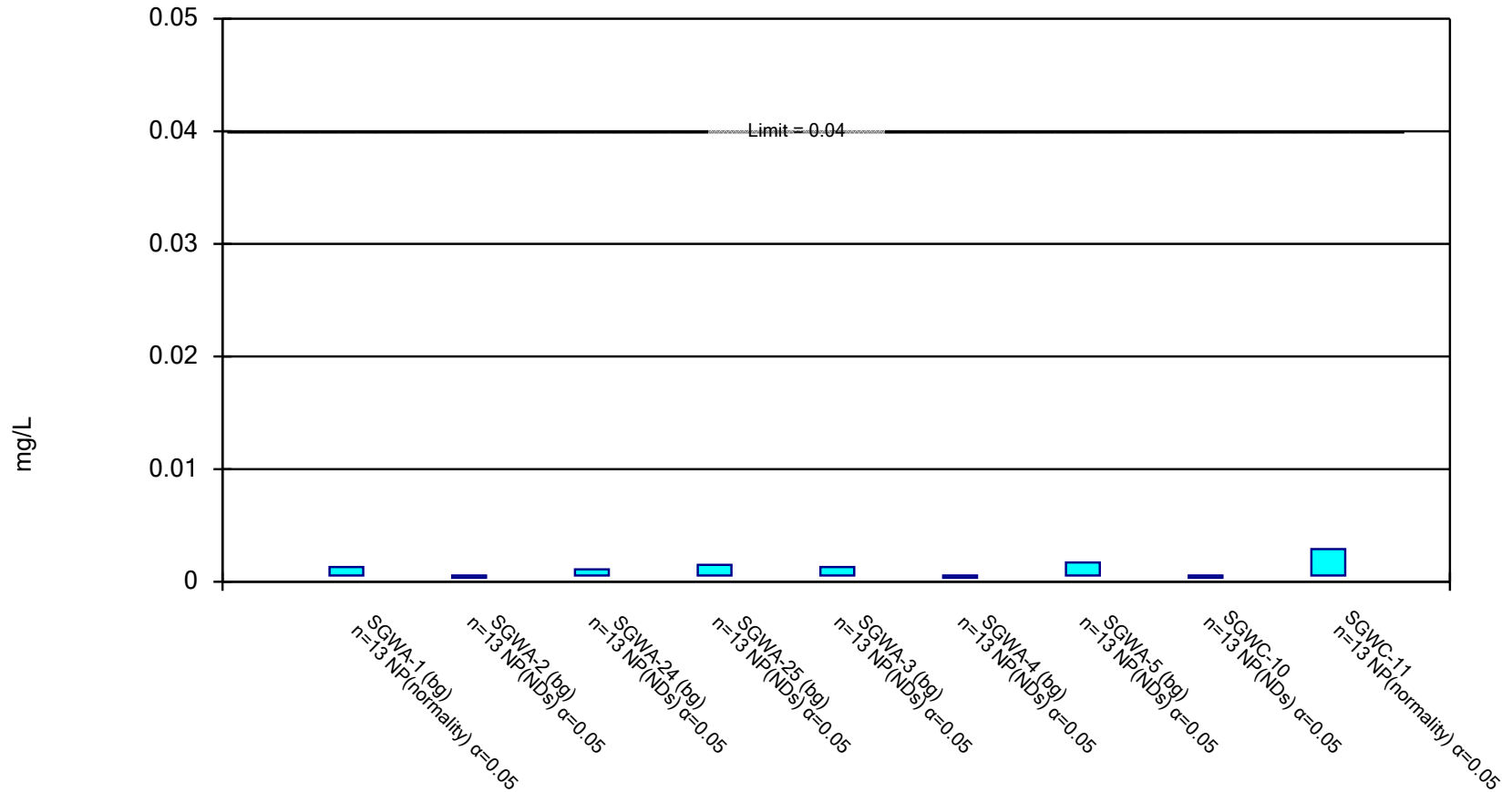


Constituent: Lead Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

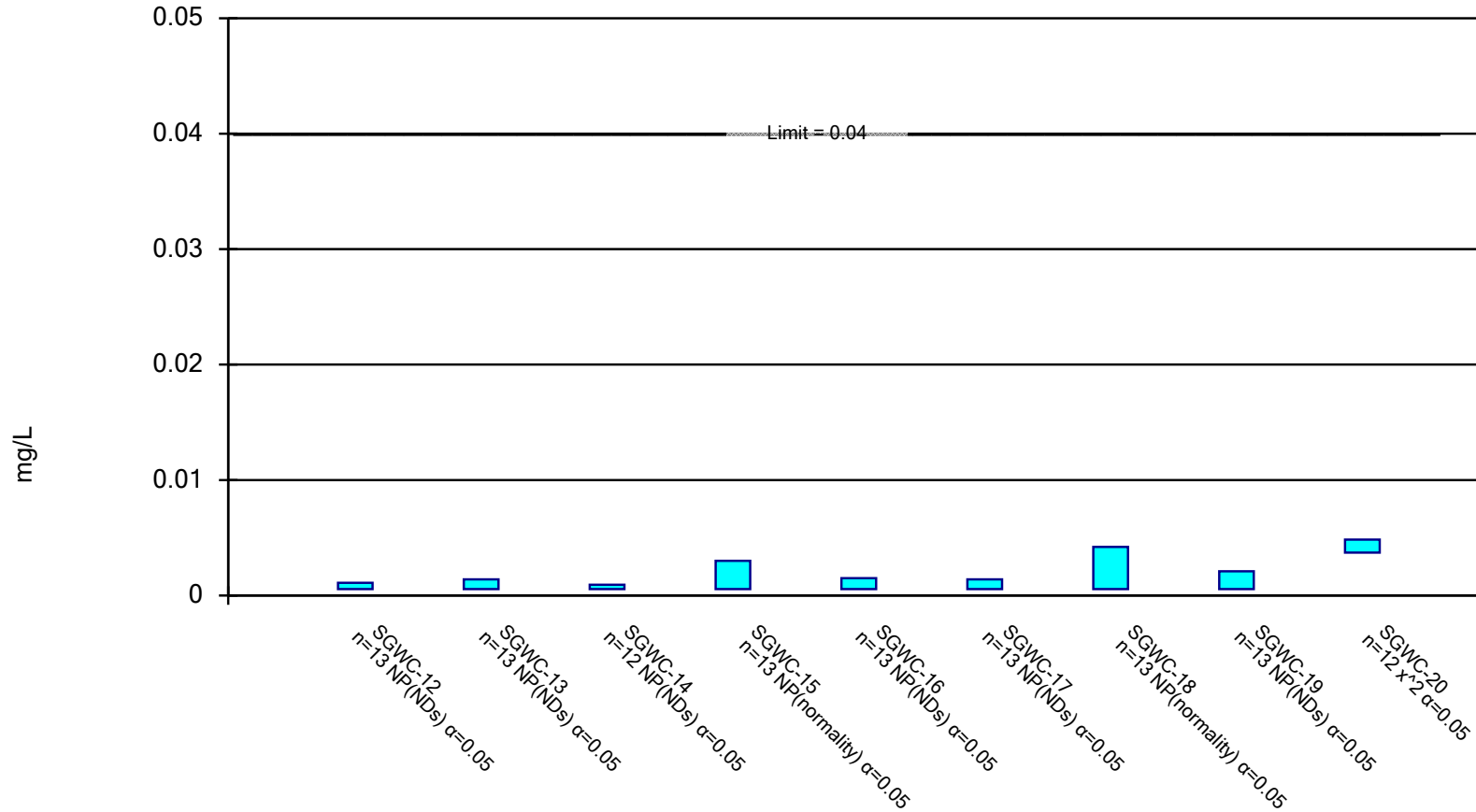
Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

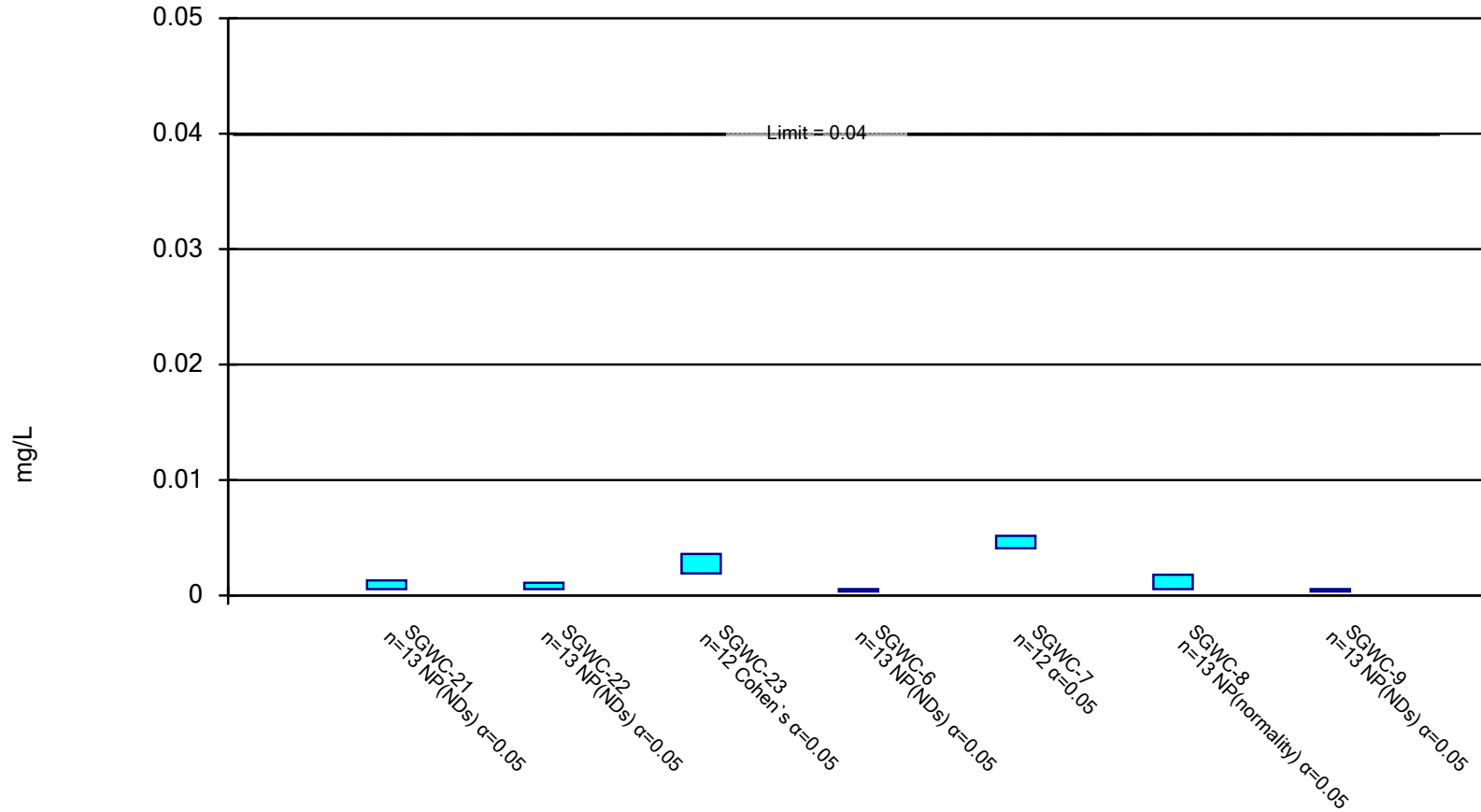
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

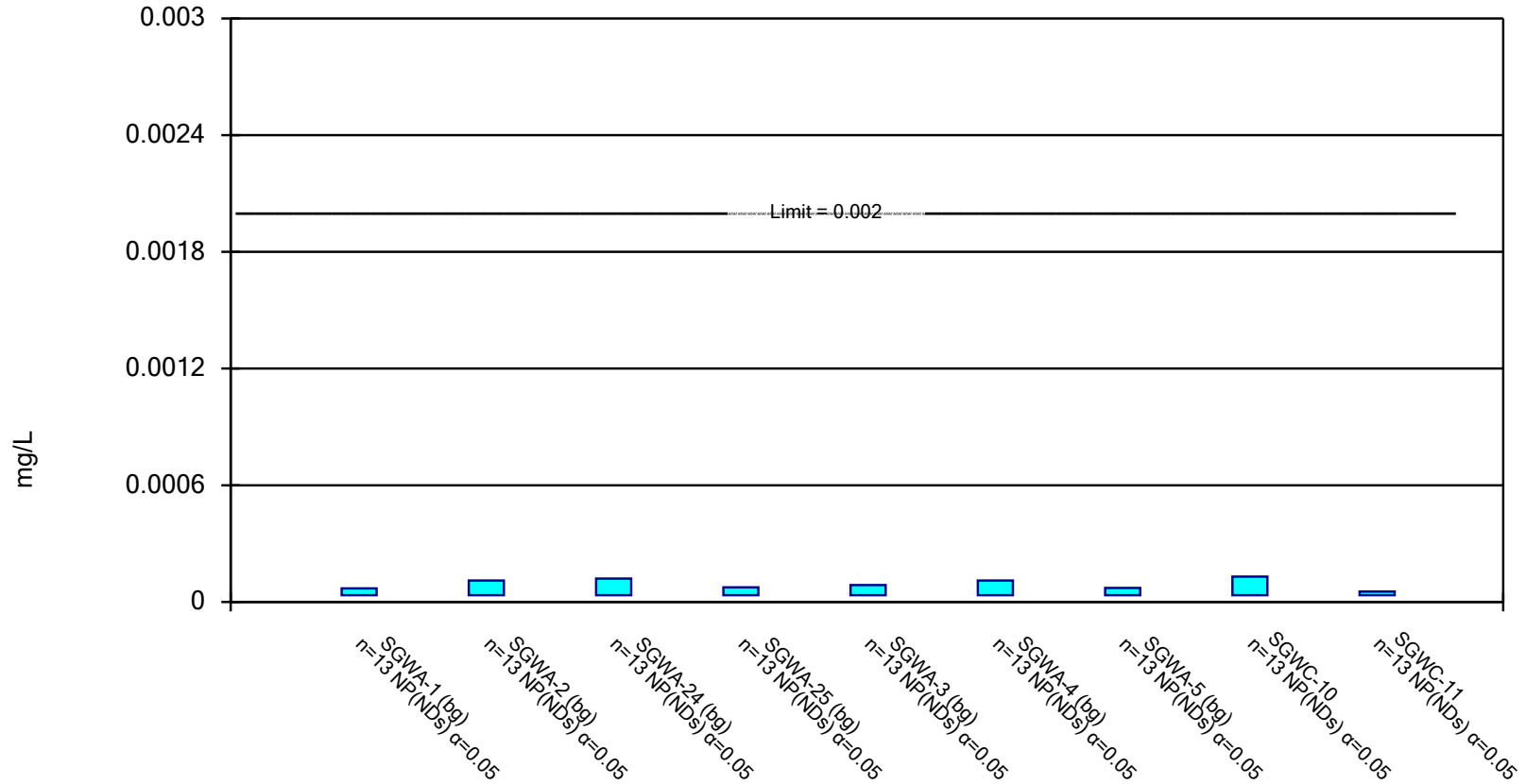
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

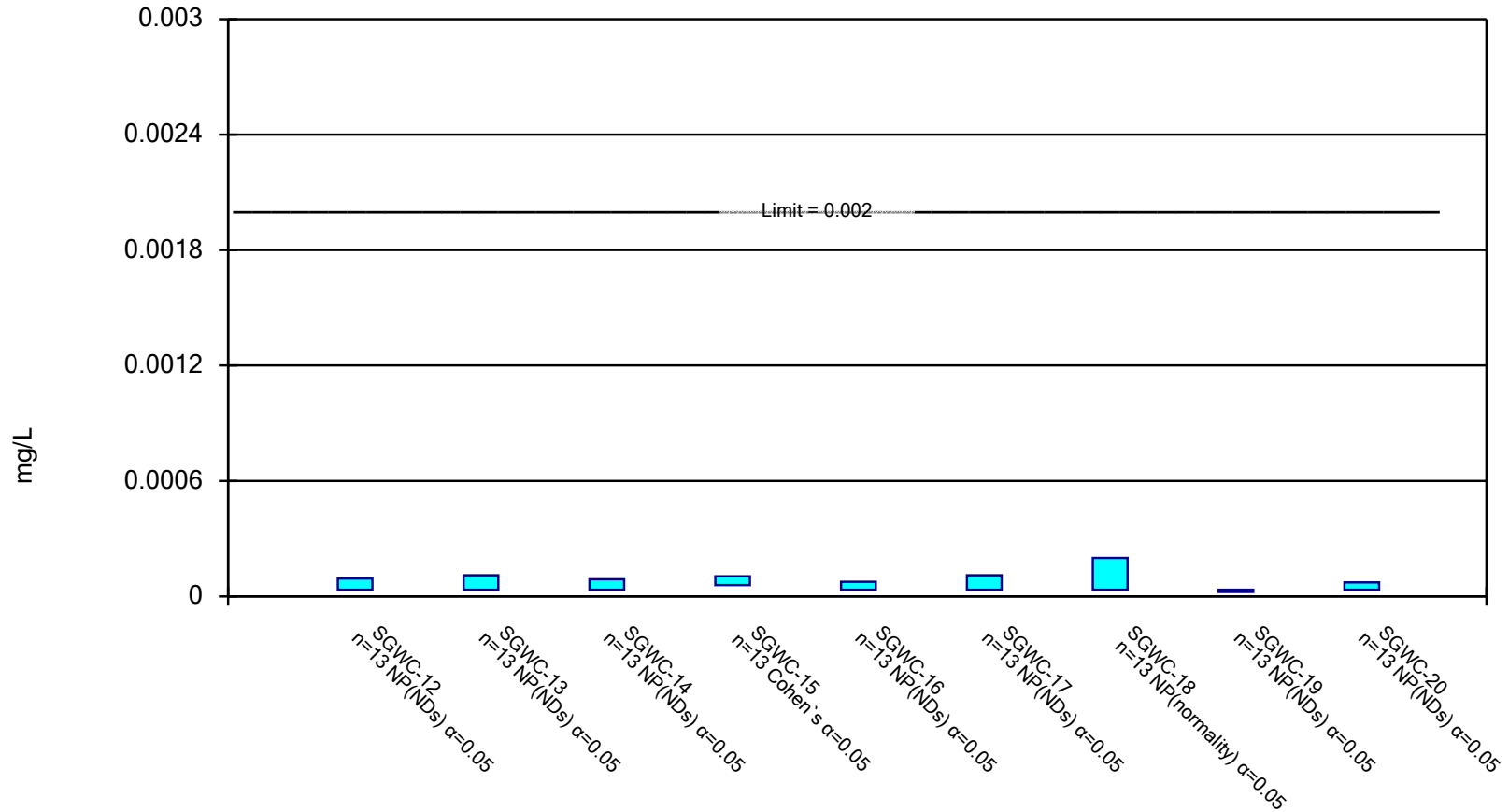
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

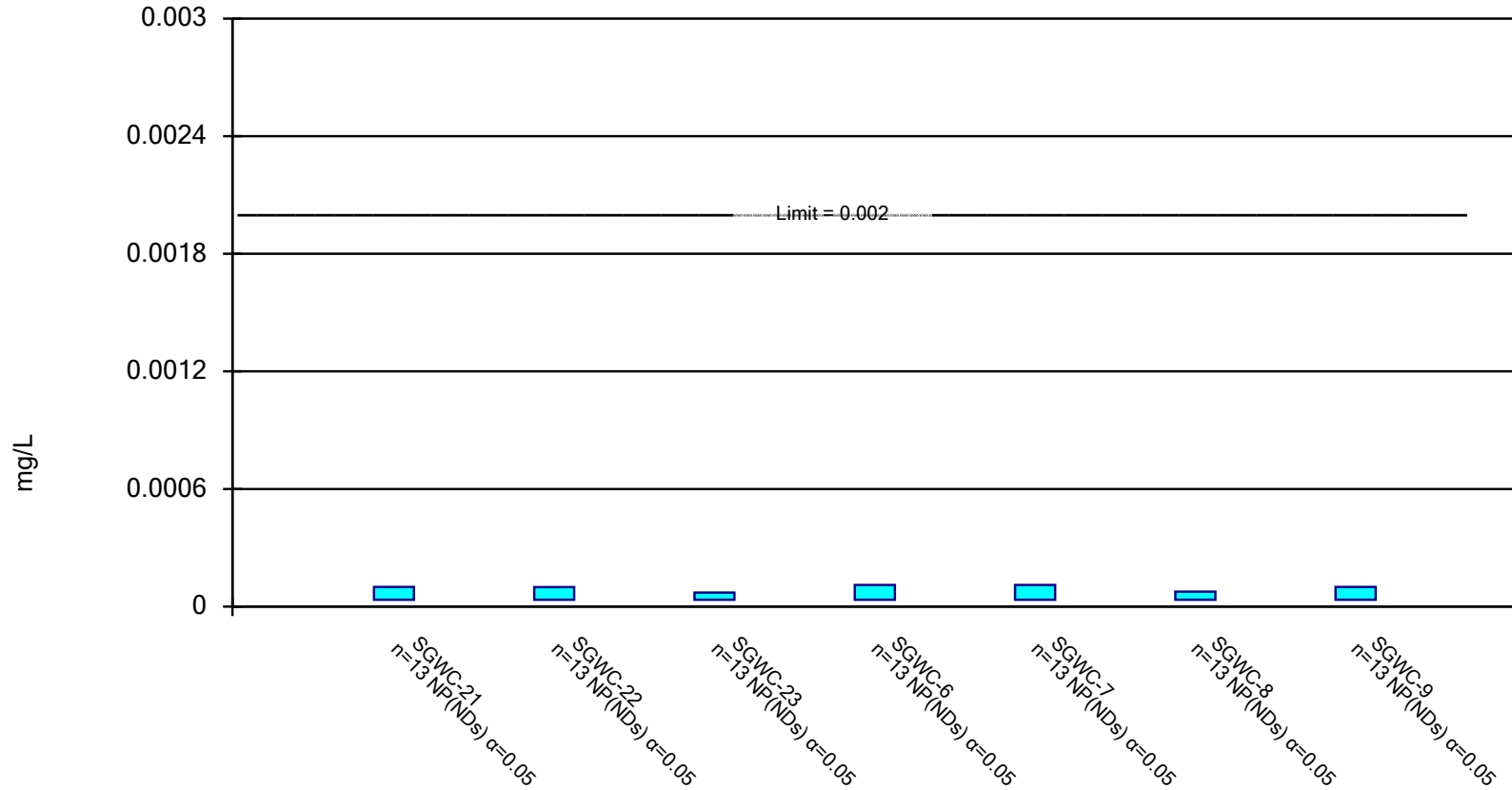
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

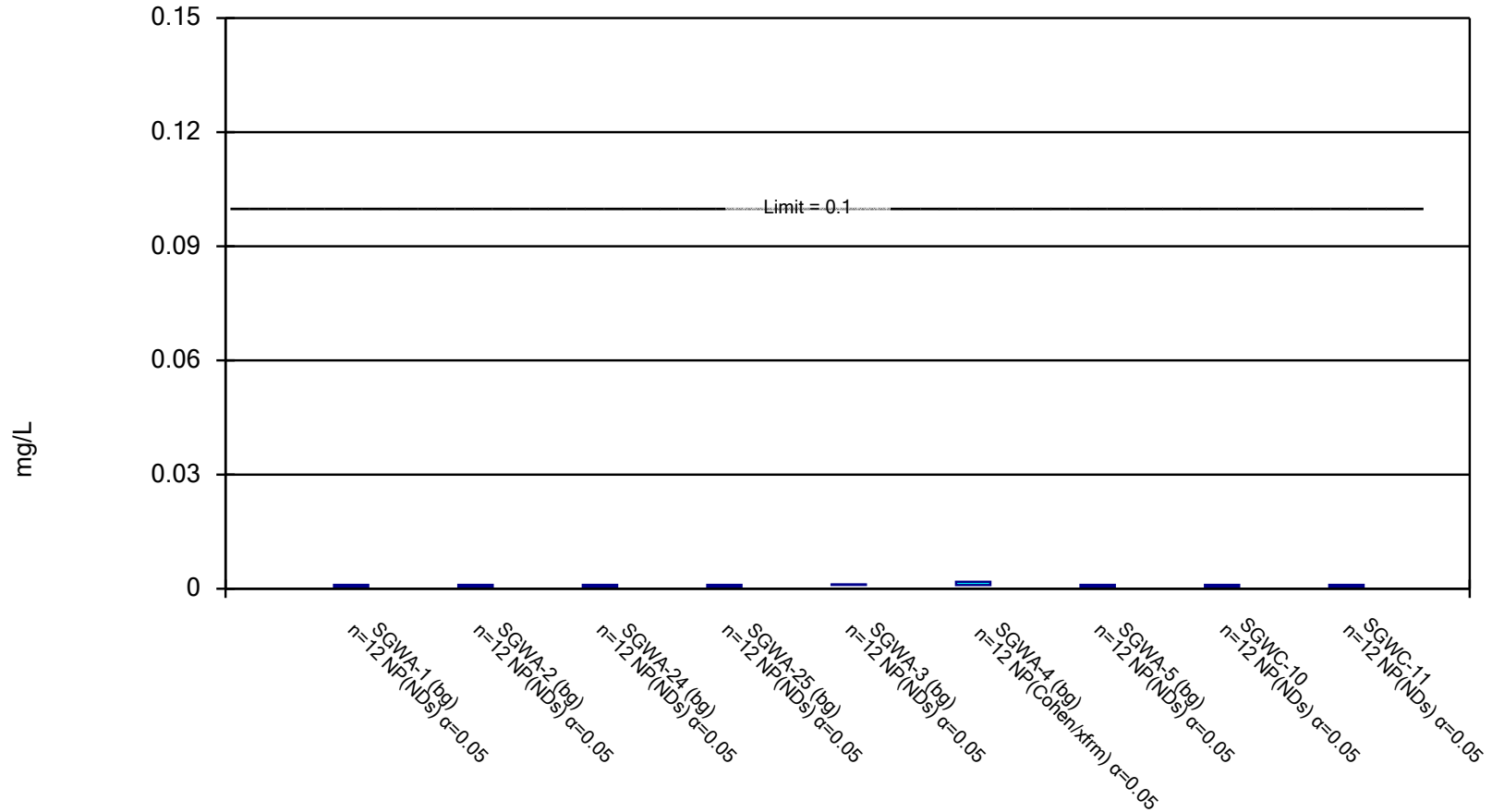
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

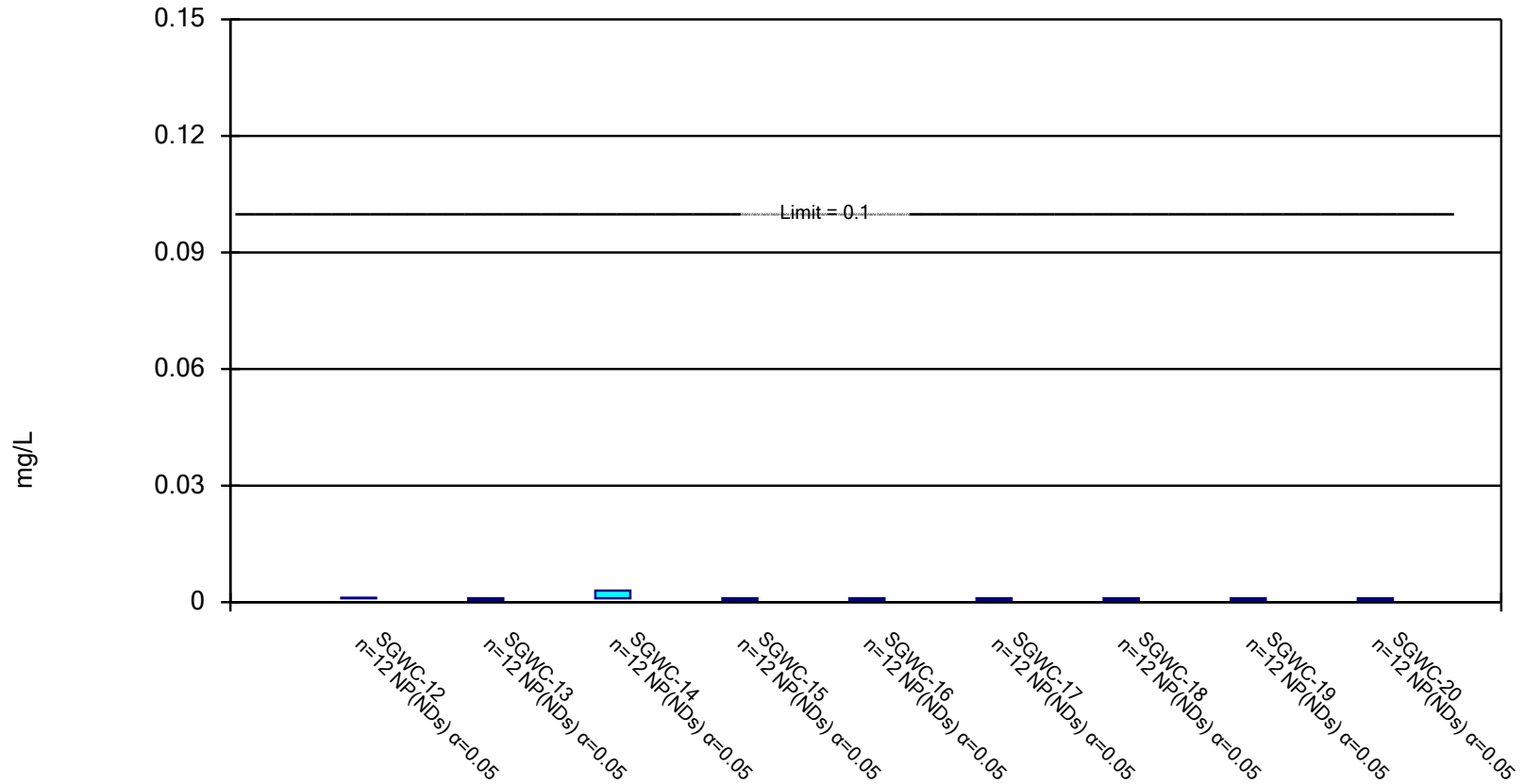


Constituent: Molybdenum Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

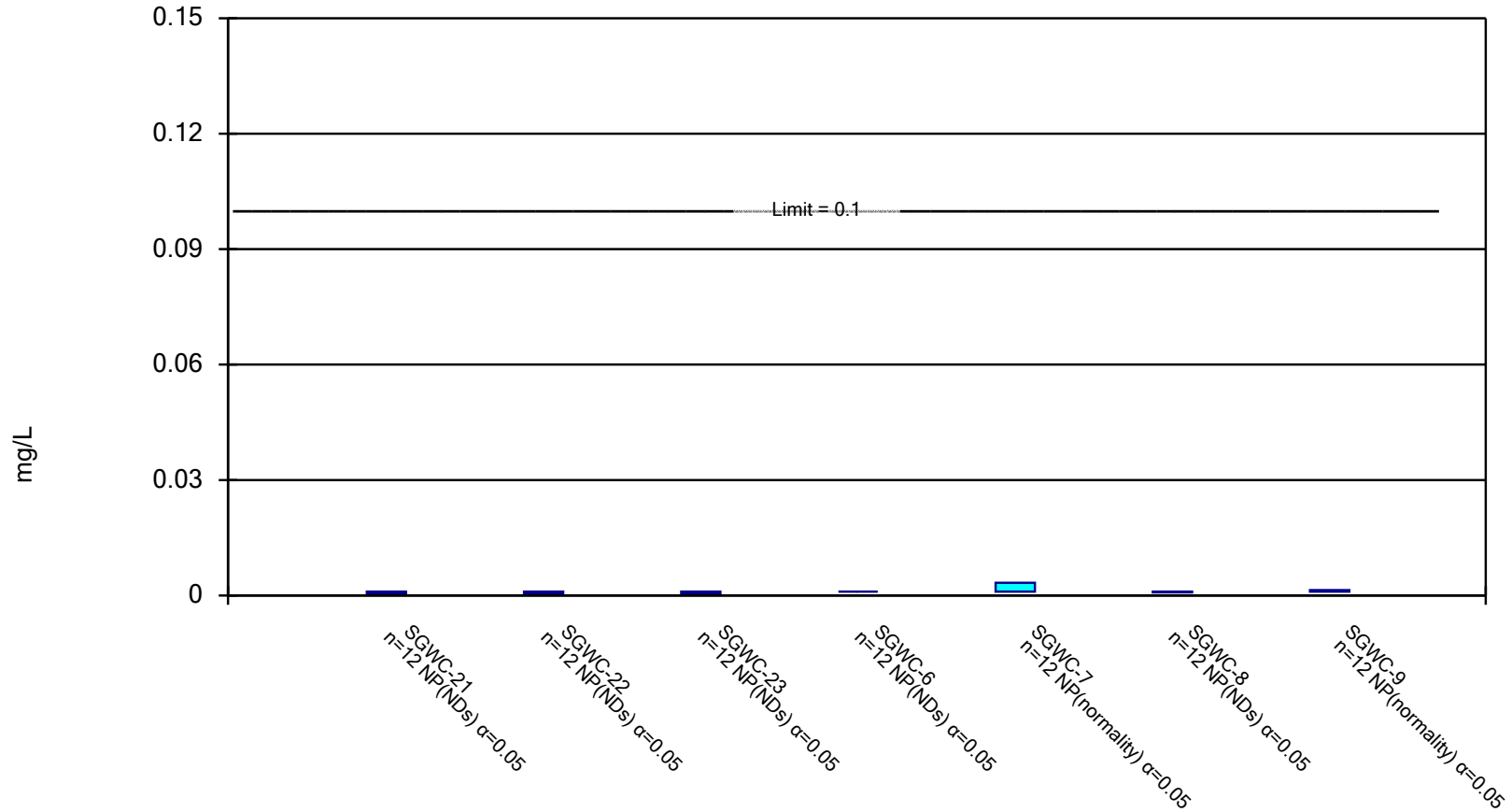


Constituent: Molybdenum Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

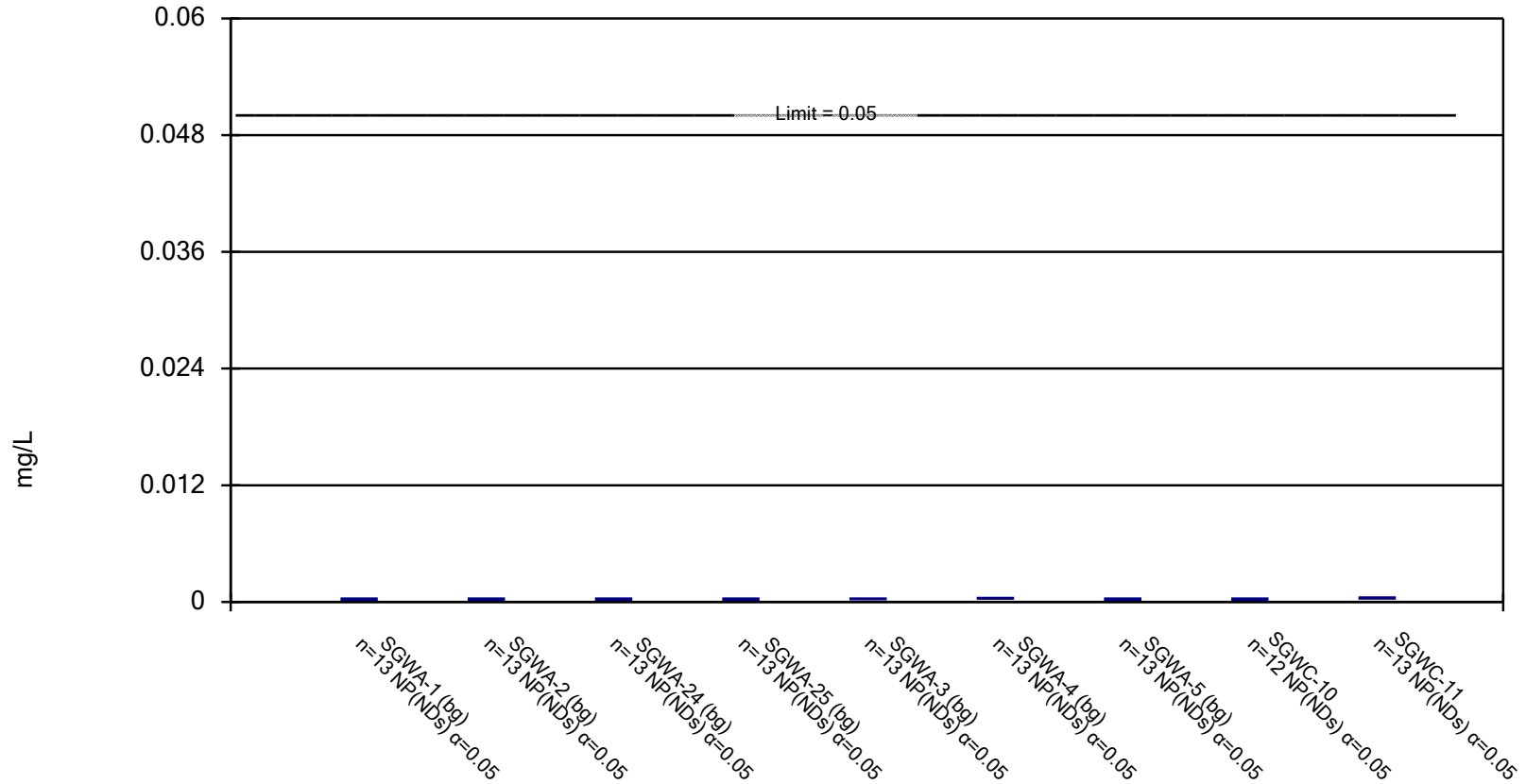


Constituent: Molybdenum Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

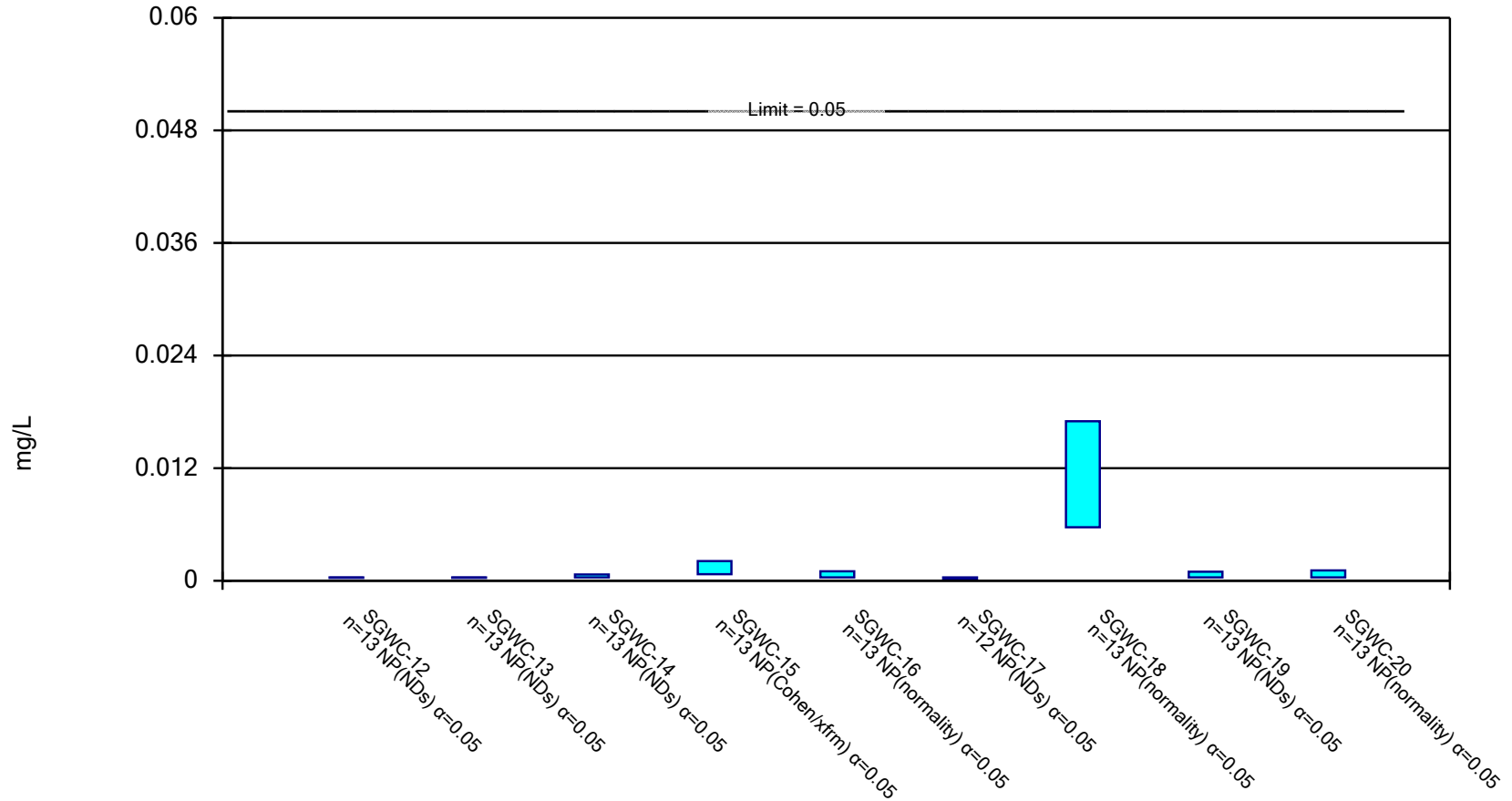


Constituent: Selenium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

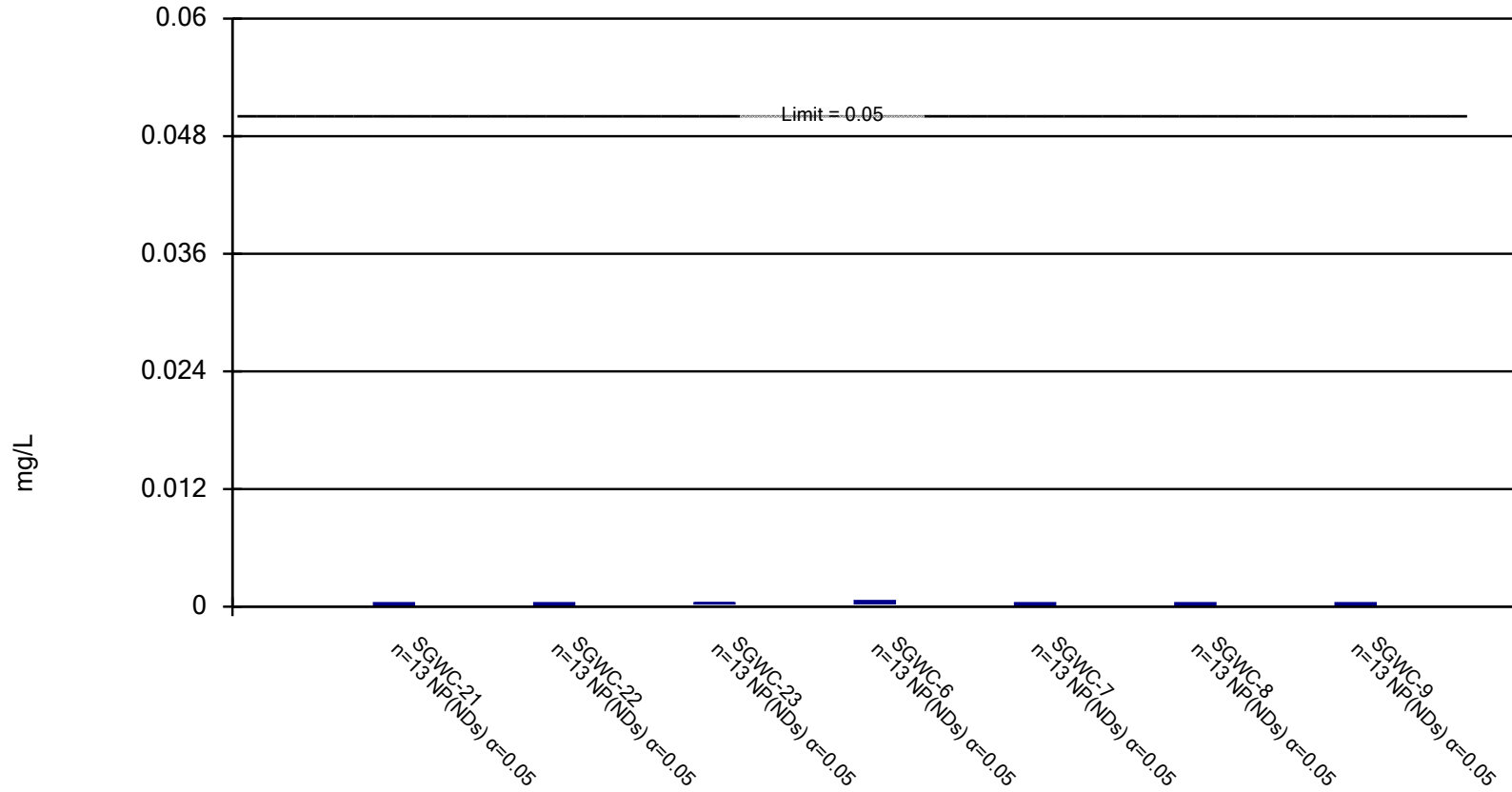


Constituent: Selenium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

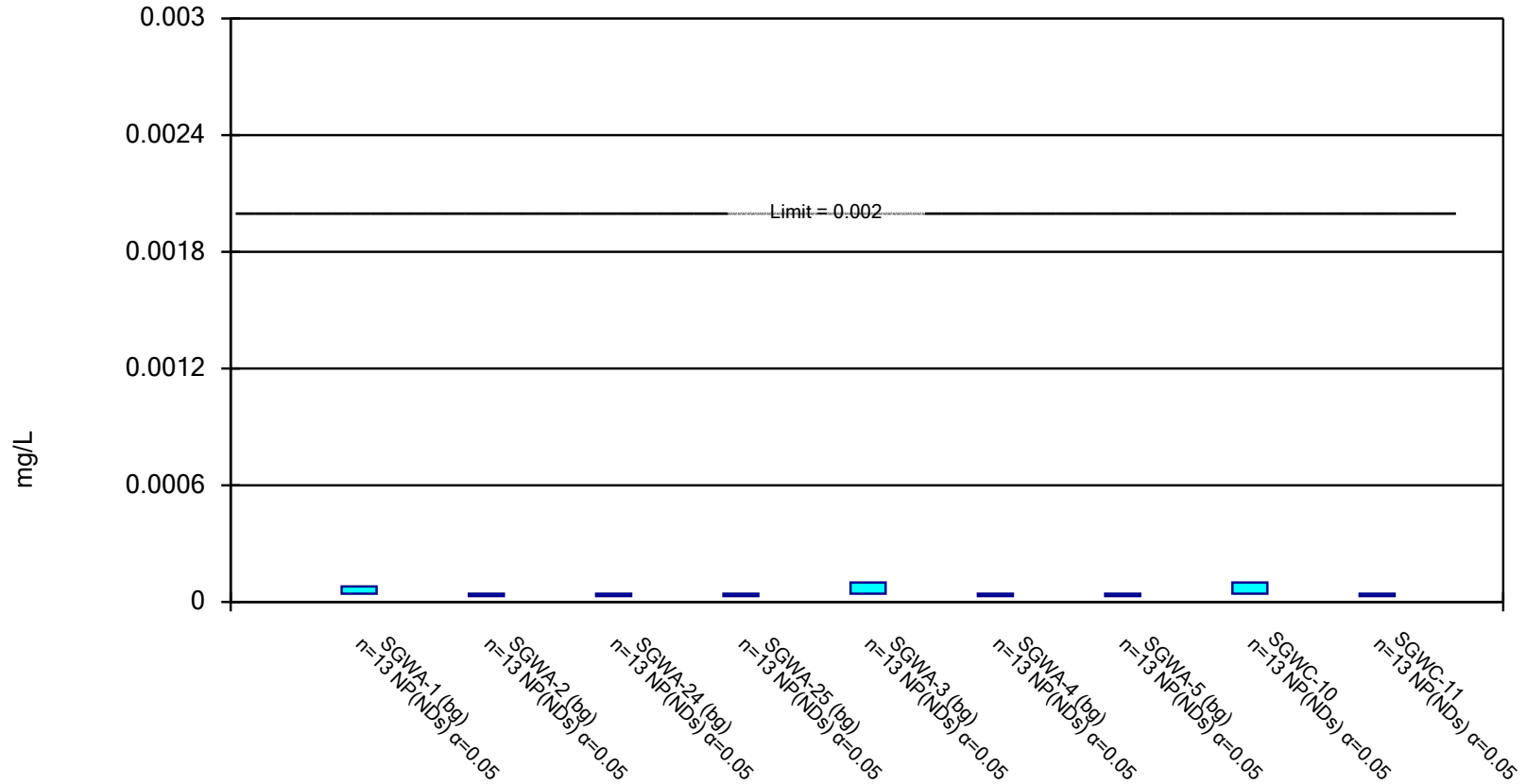
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

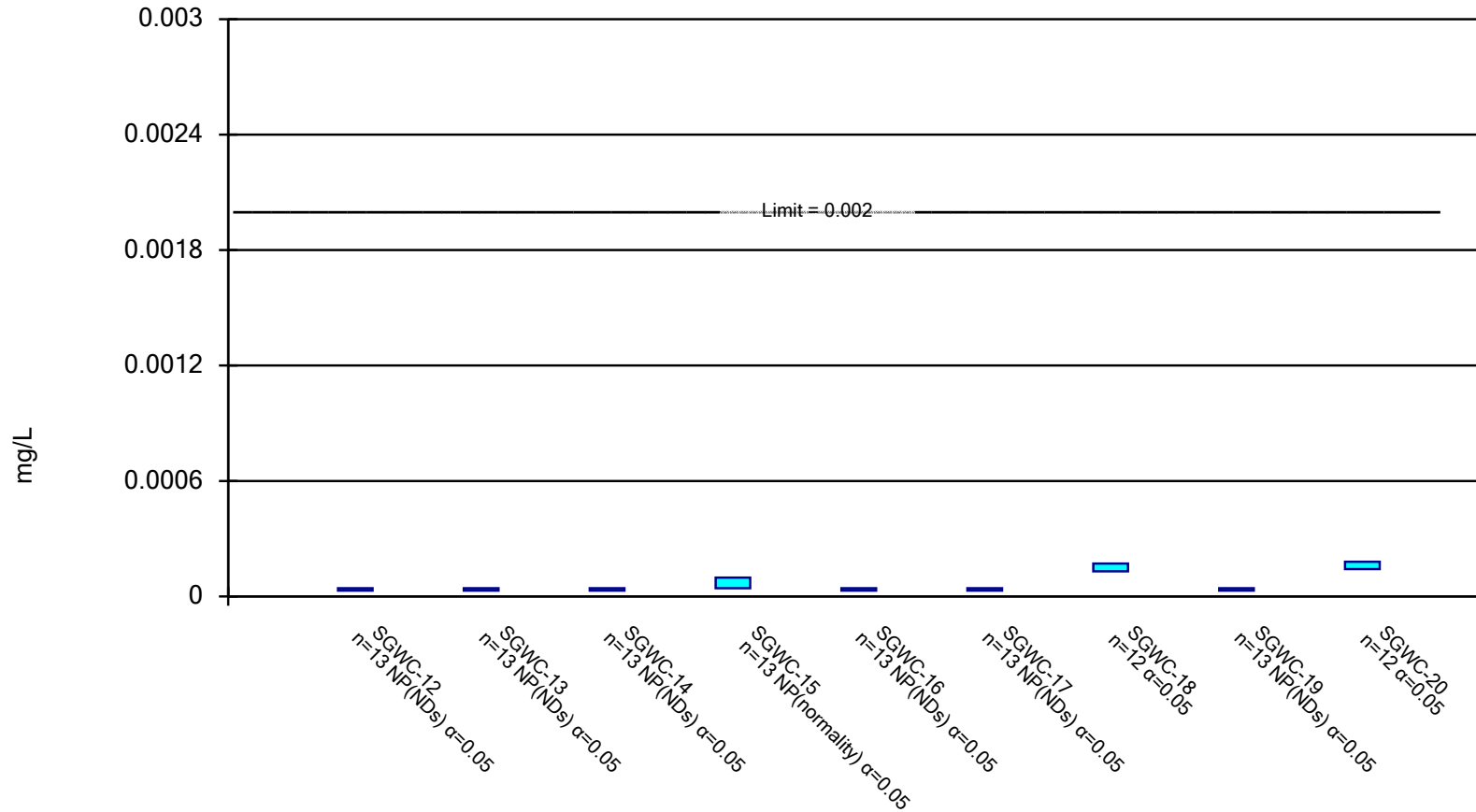


Constituent: Thallium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.

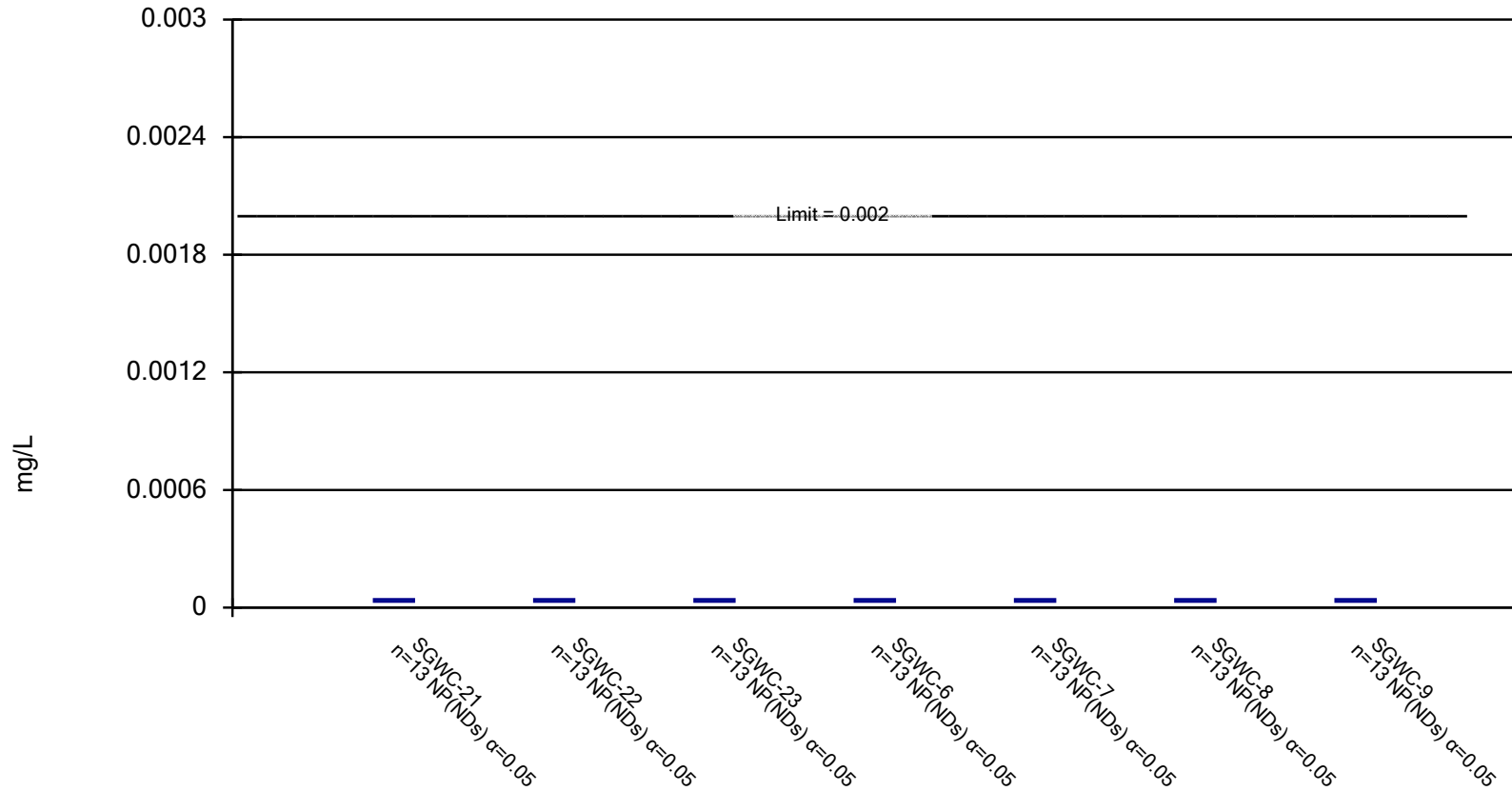


Constituent: Thallium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 5/20/2019 9:49 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

APPENDIX B STATISTICAL ANALYSES

**Georgia EPD Rules for Solid Waste Management
391-3-4-10(6)**

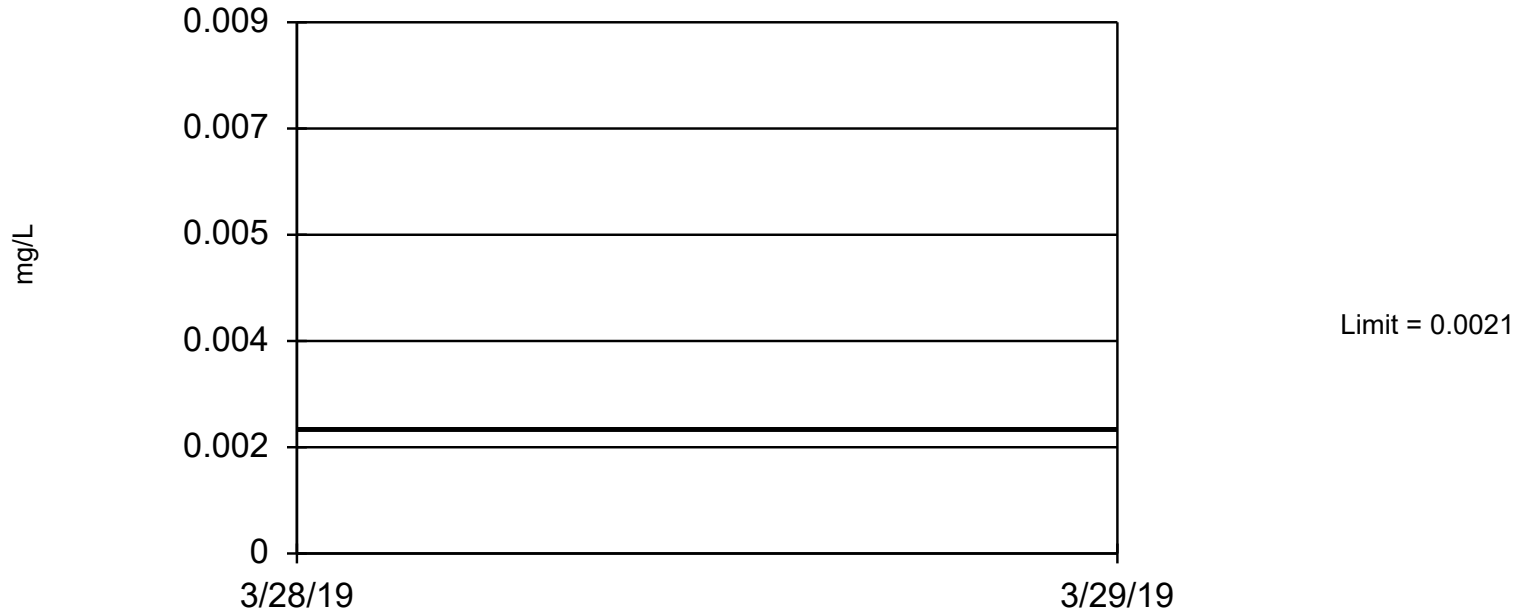
Appendix IV Confidence Intervals

Tolerance Limit

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 11:58 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0021	n/a	n/a	n/a	83	92.77	n/a	0.01416	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0015	n/a	n/a	n/a	91	78.02	n/a	0.009394	NP Inter(NDs)
Barium (mg/L)	n/a	0.06349	n/a	n/a	n/a	91	0	No	0.05	Inter
Beryllium (mg/L)	n/a	0.00034	n/a	n/a	n/a	91	98.9	n/a	0.009394	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0011	n/a	n/a	n/a	84	97.62	n/a	0.01345	NP Inter(NDs)
Chromium (mg/L)	n/a	0.016	n/a	n/a	n/a	91	35.16	n/a	0.009394	NP Inter(normal...
Cobalt (mg/L)	n/a	0.02	n/a	n/a	n/a	90	64.44	n/a	0.009888	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	n/a	1.2	n/a	n/a	n/a	90	14.44	n/a	0.009888	NP Inter(normal...
Fluoride (mg/L)	n/a	0.108	n/a	n/a	n/a	98	77.55	n/a	0.00656	NP Inter(NDs)
Lead (mg/L)	n/a	0.0013	n/a	n/a	n/a	91	98.9	n/a	0.009394	NP Inter(NDs)
Lithium (mg/L)	n/a	0.005	n/a	n/a	n/a	91	90.11	n/a	0.009394	NP Inter(NDs)
Mercury (mg/L)	n/a	0.00012	n/a	n/a	n/a	91	89.01	n/a	0.009394	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.00278	n/a	n/a	n/a	84	89.29	n/a	0.01345	NP Inter(NDs)
Selenium (mg/L)	n/a	0.00071	n/a	n/a	n/a	91	95.6	n/a	0.009394	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0001	n/a	n/a	n/a	91	96.7	n/a	0.009394	NP Inter(NDs)

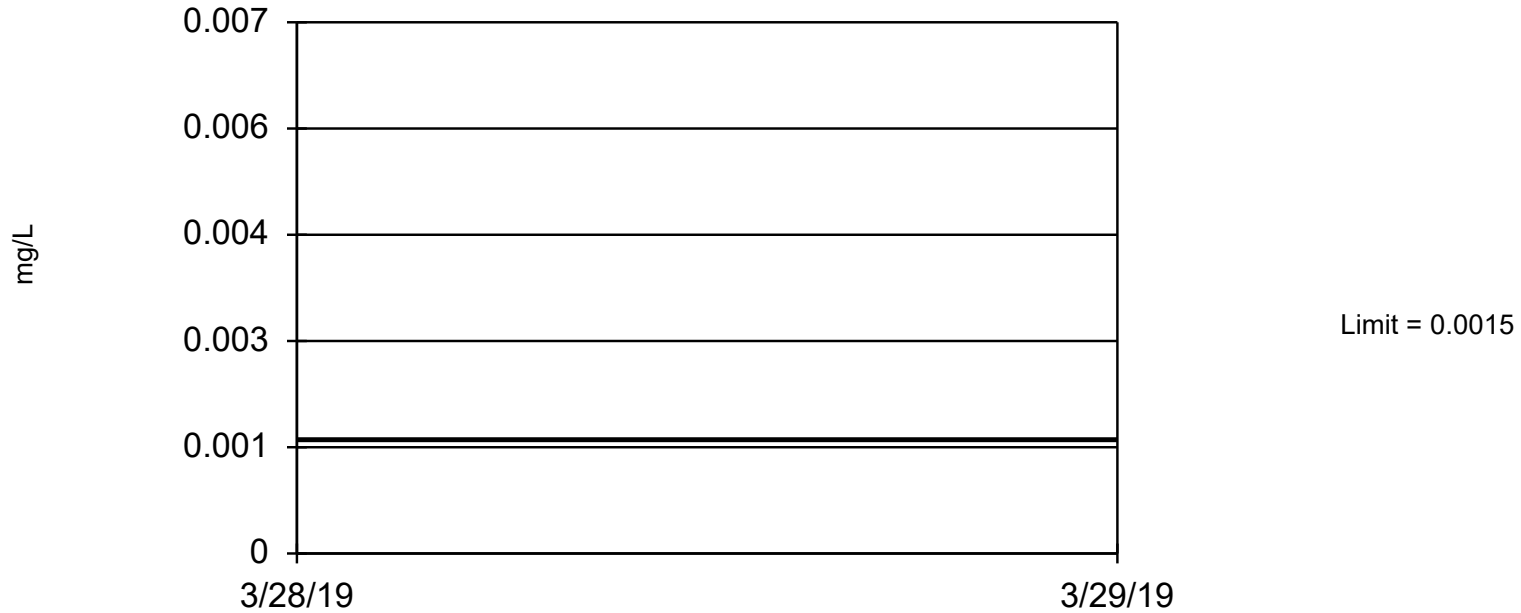
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 83 background values. 92.77% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01416.

Constituent: Antimony Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

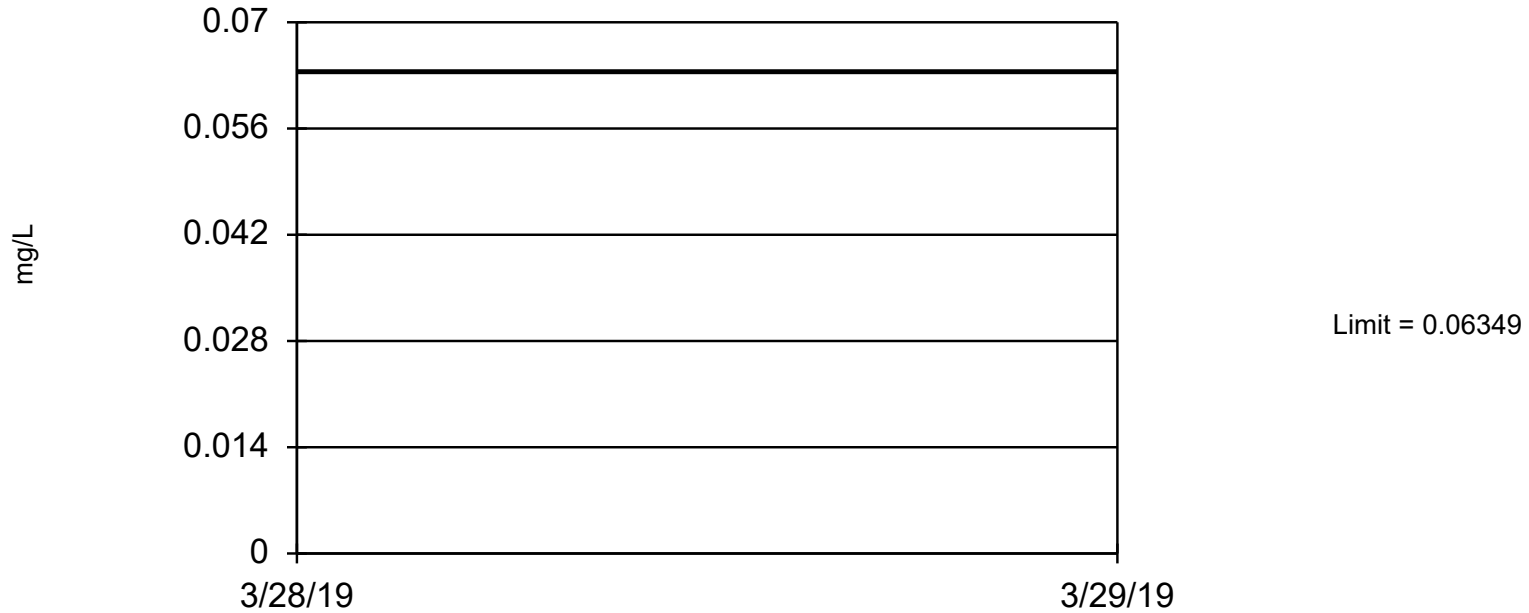
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 78.02% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Arsenic Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.03311, Std. Dev.=0.01565, n=91. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9655, critical = 0.962. Report alpha = 0.05.

Constituent: Barium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 98.9% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Beryllium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 84 background values. 97.62% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Cadmium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 91 background values. 35.16% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Chromium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 90 background values. 64.44% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009888.

Constituent: Cobalt Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

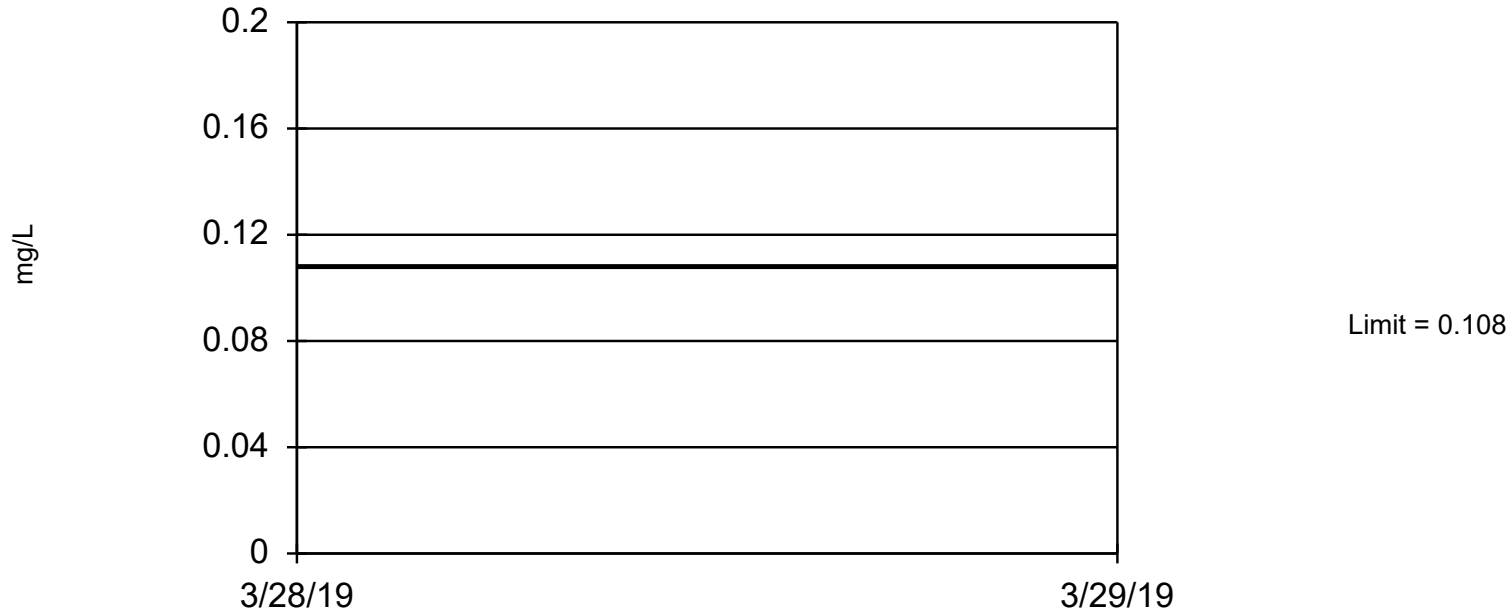
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 90 background values. 14.44% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009888.

Constituent: Combined Radium 226 + 228 Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Li
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

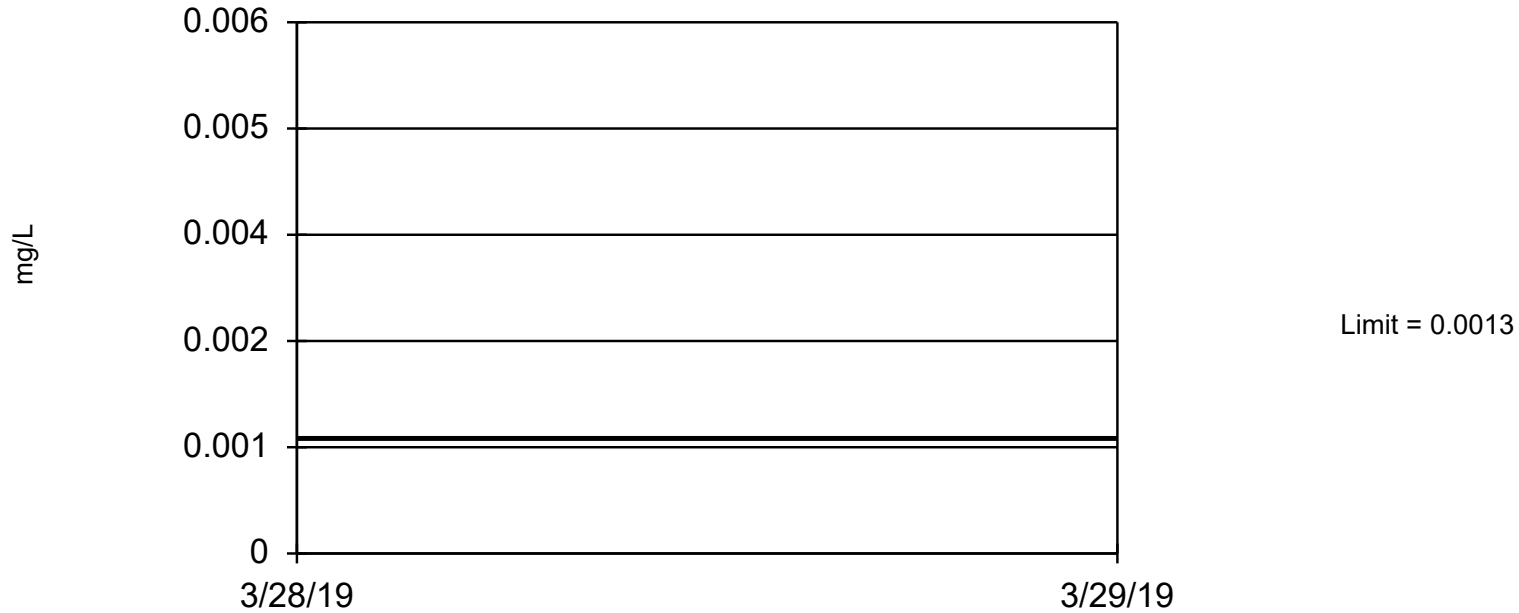
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 98 background values. 77.55% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.00656.

Constituent: Fluoride Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 98.9% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Lead Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 90.11% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Lithium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

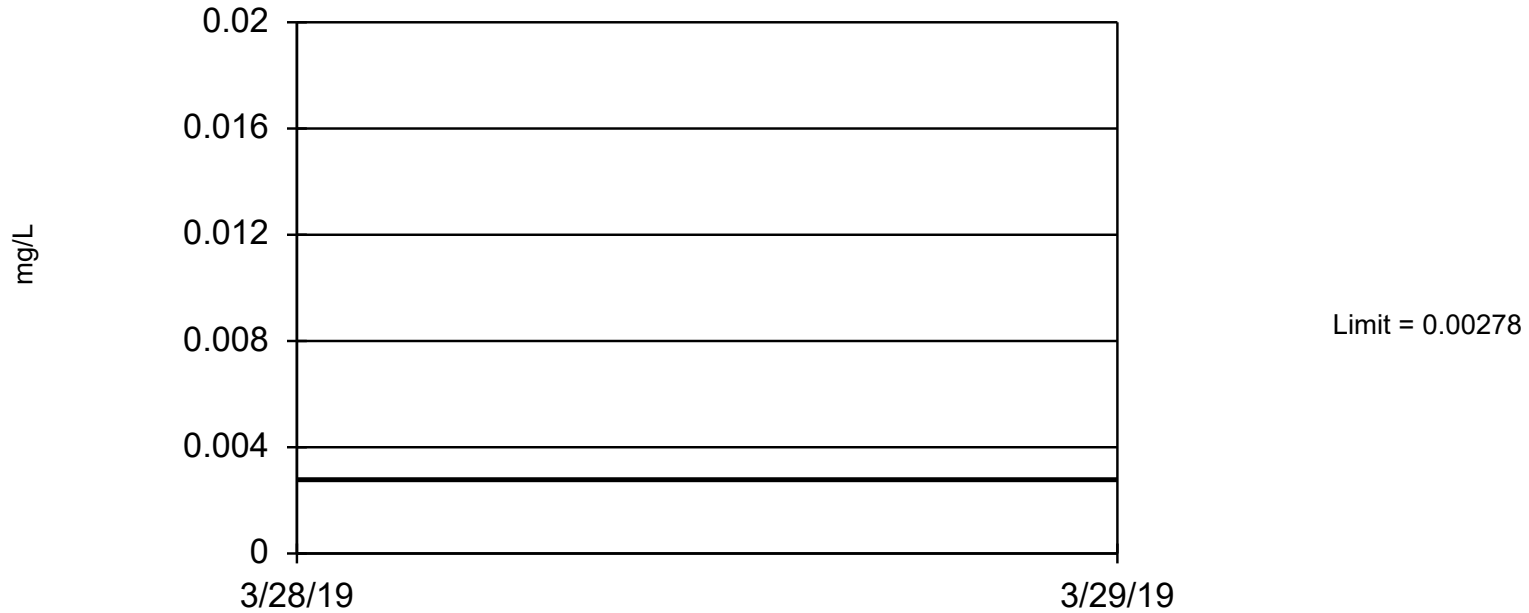
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 89.01% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Mercury Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

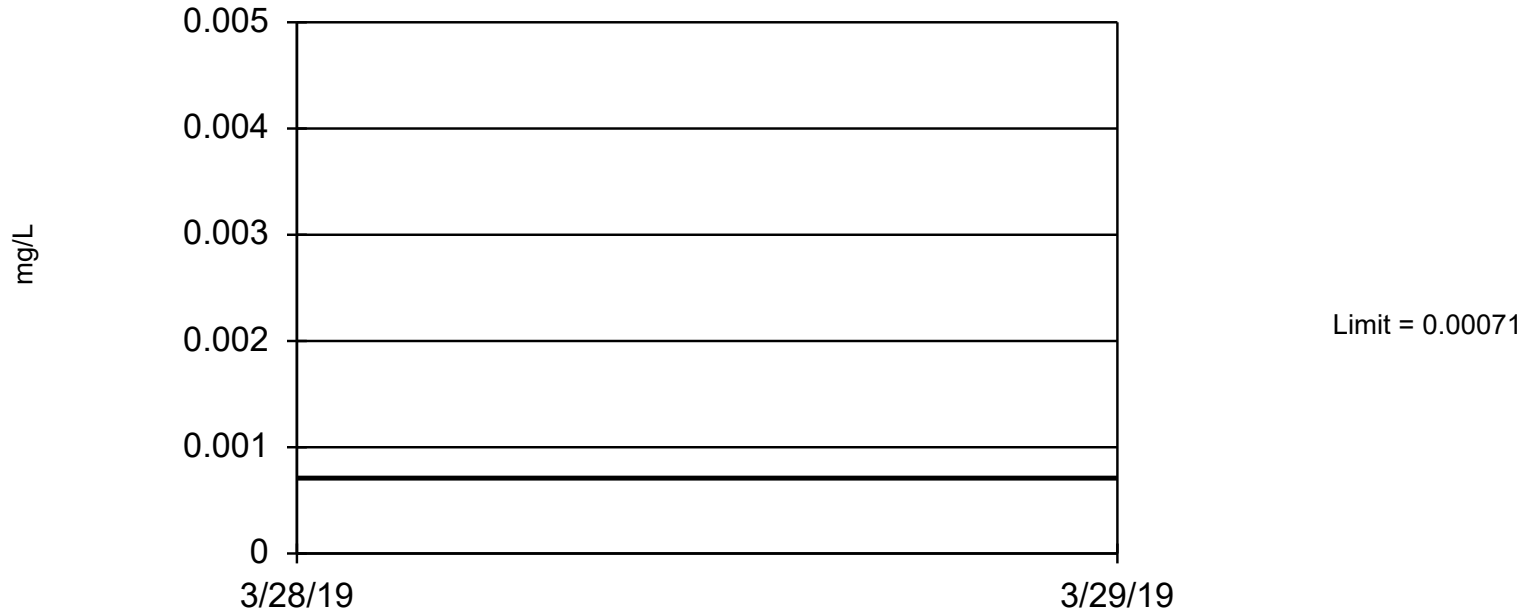
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 84 background values. 89.29% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Molybdenum Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 95.6% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Selenium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 91 background values. 96.7% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.009394.

Constituent: Thallium Analysis Run 6/28/2019 11:57 AM View: Interwell Tolerance Limits
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 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>
Cobalt (mg/L)	SGWC-10	0.03244	0.02191	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-11	0.03044	0.02587	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-15	0.2764	0.2608	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-18	0.1609	0.1202	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-20	0.231	0.1892	0.02	Yes	13	0	No	0.05	Param.

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	SGWA-1 (bg)	0.0012	0.0004	0.006	No	12	83.33	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-2 (bg)	0.001	0.001	0.006	No	12	100	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-24 (bg)	0.001	0.0003	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-25 (bg)	0.001	0.0003	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-3 (bg)	0.0021	0.001	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-4 (bg)	0.001	0.0007	0.006	No	12	91.67	No	0.05	NP (NDs)
Antimony (mg/L)	SGWA-5 (bg)	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-10	0.001	0.001	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-11	0.001	0.001	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-12	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-13	0.001	0.001	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-14	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-15	0.001	0.001	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-16	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-17	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-18	0.001	0.001	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-19	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-20	0.001	0.001	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	SGWC-21	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-22	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-23	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-6	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-7	0.001	0.001	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-8	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	SGWC-9	0.001	0.001	0.006	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	SGWA-1 (bg)	0.00055	0.00046	0.01	No	13	76.92	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-2 (bg)	0.0005	0.00046	0.01	No	13	76.92	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-24 (bg)	0.00057	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-25 (bg)	0.00075	0.00046	0.01	No	13	38.46	No	0.05	NP (normality)
Arsenic (mg/L)	SGWA-3 (bg)	0.00063	0.00046	0.01	No	13	92.31	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-4 (bg)	0.00055	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWA-5 (bg)	0.00079	0.00046	0.01	No	13	92.31	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-10	0.0005	0.00046	0.01	No	13	76.92	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-11	0.0011	0.00046	0.01	No	13	30.77	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-12	0.00091	0.00046	0.01	No	13	46.15	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-13	0.00047	0.00046	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-14	0.00057	0.00046	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-15	0.0015	0.00046	0.01	No	13	30.77	No	0.05	NP (Cohens/xfrm)
Arsenic (mg/L)	SGWC-16	0.00054	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-17	0.00066	0.00046	0.01	No	13	61.54	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-18	0.002359	0.001387	0.01	No	13	0	No	0.05	Param.
Arsenic (mg/L)	SGWC-19	0.00058	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-20	0.00085	0.00046	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-21	0.00076	0.00046	0.01	No	13	92.31	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-22	0.0006	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-23	0.00061	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-6	0.0006	0.00046	0.01	No	13	84.62	No	0.05	NP (NDs)
Arsenic (mg/L)	SGWC-7	0.00058	0.00046	0.01	No	13	61.54	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-8	0.0005	0.00046	0.01	No	13	69.23	No	0.05	NP (normality)
Arsenic (mg/L)	SGWC-9	0.00079	0.00046	0.01	No	13	46.15	No	0.05	NP (normality)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 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>
Barium (mg/L)	SGWA-1 (bg)	0.05593	0.04912	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-2 (bg)	0.03864	0.03599	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-24 (bg)	0.02207	0.02052	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-25 (bg)	0.02366	0.02151	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-3 (bg)	0.03503	0.03301	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-4 (bg)	0.05691	0.05071	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWA-5 (bg)	0.01061	0.009881	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-10	0.03245	0.02858	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-11	0.03967	0.03653	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-12	0.04404	0.03573	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-13	0.0317	0.02531	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-14	0.06174	0.05707	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-15	0.04028	0.03641	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-16	0.02141	0.01779	2	No	12	0	ln(x)	0.05	Param.
Barium (mg/L)	SGWC-17	0.02022	0.01806	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-18	0.029	0.0138	2	No	13	0	No	0.05	NP (normality)
Barium (mg/L)	SGWC-19	0.04289	0.03699	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-20	0.03686	0.02979	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-21	0.09368	0.08997	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-22	0.09397	0.08551	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-23	0.08903	0.07876	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-6	0.08447	0.05327	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-7	0.3104	0.2755	2	No	13	0	No	0.05	Param.
Barium (mg/L)	SGWC-8	0.19	0.17	2	No	13	0	No	0.05	NP (normality)
Barium (mg/L)	SGWC-9	0.06681	0.05594	2	No	13	0	No	0.05	Param.
Beryllium (mg/L)	SGWA-1 (bg)	0.00034	0.0002	0.004	No	13	92.31	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-2 (bg)	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-24 (bg)	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-25 (bg)	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-3 (bg)	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-4 (bg)	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWA-5 (bg)	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-10	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-11	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-12	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-13	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-14	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-15	0.0003808	0.0003386	0.004	No	13	23.08	No	0.05	Param.
Beryllium (mg/L)	SGWC-16	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-17	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-18	0.00035	0.00033	0.004	No	13	69.23	No	0.05	NP (normality)
Beryllium (mg/L)	SGWC-19	0.00034	0.0002	0.004	No	13	84.62	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-20	0.0008153	0.0006912	0.004	No	13	0	No	0.05	Param.
Beryllium (mg/L)	SGWC-21	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-22	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-23	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-6	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-7	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-8	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)
Beryllium (mg/L)	SGWC-9	0.00034	0.00034	0.004	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 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>
Cadmium (mg/L)	SGWA-1 (bg)	0.00034	0.000156	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-2 (bg)	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-24 (bg)	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-25 (bg)	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-3 (bg)	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-4 (bg)	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWA-5 (bg)	0.0011	0.00034	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-10	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-11	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-12	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-13	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-14	0.00034	0.000136	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-15	0.00044	0.00033	0.005	No	12	66.67	No	0.05	NP (normality)
Cadmium (mg/L)	SGWC-16	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-17	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-18	0.00034	0.00023	0.005	No	12	75	No	0.05	NP (normality)
Cadmium (mg/L)	SGWC-19	0.00036	0.00034	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-20	0.00034	0.000108	0.005	No	12	83.33	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-21	0.00039	0.00034	0.005	No	12	91.67	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-22	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-23	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-6	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-7	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-8	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Cadmium (mg/L)	SGWC-9	0.00034	0.00034	0.005	No	12	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWA-1 (bg)	0.0014	0.0011	0.1	No	13	69.23	No	0.05	NP (normality)
Chromium (mg/L)	SGWA-2 (bg)	0.0139	0.01152	0.1	No	13	0	x^3	0.05	Param.
Chromium (mg/L)	SGWA-24 (bg)	0.004344	0.003507	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWA-25 (bg)	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWA-3 (bg)	0.0118	0.008221	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWA-4 (bg)	0.005565	0.003261	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWA-5 (bg)	0.0011	0.0011	0.1	No	13	76.92	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-10	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-11	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-12	0.0023	0.0011	0.1	No	13	92.31	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-13	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-14	0.0012	0.0011	0.1	No	13	69.23	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-15	0.03421	0.03216	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-16	0.01	0.0093	0.1	No	13	0	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-17	0.005546	0.003754	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-18	0.008385	0.006909	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-19	0.01559	0.01429	0.1	No	13	0	No	0.05	Param.
Chromium (mg/L)	SGWC-20	0.0011	0.0009	0.1	No	13	92.31	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-21	0.0012	0.0011	0.1	No	13	84.62	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-22	0.0012	0.0007	0.1	No	13	76.92	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-23	0.0014	0.0011	0.1	No	12	50	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-6	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-7	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)
Chromium (mg/L)	SGWC-8	0.0013	0.0011	0.1	No	13	53.85	No	0.05	NP (normality)
Chromium (mg/L)	SGWC-9	0.0011	0.0011	0.1	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	SGWA-1 (bg)	0.01348	0.006417	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWA-2 (bg)	0.0004	0.0004	0.02	No	13	92.31	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-24 (bg)	0.0004	0.0004	0.02	No	13	76.92	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-25 (bg)	0.01307	0.008664	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWA-3 (bg)	0.00051	0.0004	0.02	No	12	91.67	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-4 (bg)	0.00041	0.0004	0.02	No	13	92.31	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWA-5 (bg)	0.0004	0.0004	0.02	No	13	100	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWC-10	0.03244	0.02191	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-11	0.03044	0.02587	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-12	0.004296	0.00344	0.02	No	13	0	x^(1/3)	0.05	Param.
Cobalt (mg/L)	SGWC-13	0.008913	0.005426	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-14	0.0122	0.007597	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-15	0.2764	0.2608	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-16	0.003718	0.003256	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-17	0.0006166	0.000396	0.02	No	12	25	No	0.05	Param.
Cobalt (mg/L)	SGWC-18	0.1609	0.1202	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-19	0.0005962	0.0003884	0.02	No	13	53.85	No	0.05	Param.
Cobalt (mg/L)	SGWC-20	0.231	0.1892	0.02	Yes	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-21	0.0004	0.00011	0.02	No	13	92.31	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWC-22	0.003961	0.002599	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-23	0.0004	0.0004	0.02	No	12	100	No	0.05	NP (NDs)
Cobalt (mg/L)	SGWC-6	0.002361	0.0007227	0.02	No	13	23.08	No	0.05	Param.
Cobalt (mg/L)	SGWC-7	0.0122	0.0074	0.02	No	13	0	No	0.05	Param.
Cobalt (mg/L)	SGWC-8	0.00049	0.0004	0.02	No	13	69.23	No	0.05	NP (normality)
Cobalt (mg/L)	SGWC-9	0.01418	0.01032	0.02	No	13	0	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-1 (bg)	0.3712	0.2348	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-2 (bg)	0.4103	0.1945	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-24 (bg)	0.3648	0.1393	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-25 (bg)	0.3664	0.133	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-3 (bg)	0.332	0.175	5	No	13	15.38	No	0.05	NP (normality)
Combined Radium 226 + 228 (pCi/L)	SGWA-4 (bg)	0.2693	0.07354	5	No	12	16.67	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWA-5 (bg)	0.358	0.224	5	No	13	15.38	No	0.05	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	SGWC-10	0.47	0.136	5	No	13	7.692	No	0.05	NP (normality)
Combined Radium 226 + 228 (pCi/L)	SGWC-11	0.5714	0.2628	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-12	0.4026	0.1635	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-13	0.4429	0.161	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-14	0.4349	0.1832	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-15	0.451	0.2393	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-16	0.3814	0.175	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-17	0.404	0.2059	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-18	0.3948	0.2215	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-19	0.3575	0.1285	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-20	0.5935	0.3277	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-21	0.4546	0.2396	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-22	0.3586	0.2116	5	No	12	8.333	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-23	0.6592	0.4662	5	No	13	7.692	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-6	0.4096	0.177	5	No	13	15.38	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-7	0.5181	0.346	5	No	13	0	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-8	2.5	2.072	5	No	13	0	No	0.05	Param.
Combined Radium 226 + 228 (pCi/L)	SGWC-9	0.4284	0.234	5	No	13	7.692	No	0.05	Param.

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 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>
Fluoride (mg/L)	SGWA-1 (bg)	0.026	0.026	4	No	14	100	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWA-2 (bg)	0.03	0.026	4	No	14	71.43	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-24 (bg)	0.05	0.026	4	No	14	71.43	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-25 (bg)	0.03	0.026	4	No	14	71.43	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-3 (bg)	0.026	0.026	4	No	14	78.57	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWA-4 (bg)	0.08	0.026	4	No	14	57.14	No	0.05	NP (normality)
Fluoride (mg/L)	SGWA-5 (bg)	0.026	0.0188	4	No	14	92.86	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-10	0.026	0.019	4	No	14	92.86	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-11	0.033	0.026	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-12	0.09934	0.0399	4	No	14	28.57	No	0.05	Param.
Fluoride (mg/L)	SGWC-13	0.042	0.026	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-14	0.03	0.026	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-15	0.14	0.11	4	No	13	7.692	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-16	0.09	0.011	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-17	0.045	0.026	4	No	14	64.29	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-18	0.0343	0.026	4	No	14	78.57	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-19	0.18	0.0126	4	No	14	85.71	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-20	0.2765	0.1857	4	No	14	7.143	No	0.05	Param.
Fluoride (mg/L)	SGWC-21	0.083	0.026	4	No	14	50	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-22	0.029	0.026	4	No	14	78.57	No	0.05	NP (NDs)
Fluoride (mg/L)	SGWC-23	0.036	0.026	4	No	14	64.29	No	0.05	NP (normality)
Fluoride (mg/L)	SGWC-6	0.1299	0.06374	4	No	14	21.43	No	0.05	Param.
Fluoride (mg/L)	SGWC-7	0.2248	0.1916	4	No	14	0	No	0.05	Param.
Fluoride (mg/L)	SGWC-8	0.4718	0.3828	4	No	14	0	No	0.05	Param.
Fluoride (mg/L)	SGWC-9	0.074	0.026	4	No	14	64.29	No	0.05	NP (normality)
Lead (mg/L)	SGWA-1 (bg)	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-2 (bg)	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-24 (bg)	0.0013	0.0001	0.013	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-25 (bg)	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-3 (bg)	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-4 (bg)	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWA-5 (bg)	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-10	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-11	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-12	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-13	0.0013	0.00039	0.013	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-14	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-15	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-16	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-17	0.0013	0.0013	0.013	No	12	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-18	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-19	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-20	0.0013	0.0005	0.013	No	13	69.23	No	0.05	NP (normality)
Lead (mg/L)	SGWC-21	0.0013	0.00009	0.013	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-22	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-23	0.0013	0.00009	0.013	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-6	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-7	0.0013	0.00085	0.013	No	13	92.31	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-8	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)
Lead (mg/L)	SGWC-9	0.0013	0.0013	0.013	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 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>
Lithium (mg/L)	SGWA-1 (bg)	0.005	0.00235	0.005	No	13	69.23	No	0.05	NP (normality)
Lithium (mg/L)	SGWA-2 (bg)	0.005	0.005	0.005	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-24 (bg)	0.005	0.0012	0.005	No	13	84.62	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-25 (bg)	0.005	0.0015	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-3 (bg)	0.005	0.0013	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-4 (bg)	0.005	0.005	0.005	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWA-5 (bg)	0.005	0.0017	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-10	0.005	0.005	0.005	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-11	0.005	0.0029	0.005	No	13	53.85	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-12	0.005	0.0011	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-13	0.005	0.0014	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-14	0.005	0.0012	0.005	No	12	83.33	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-15	0.005	0.003	0.005	No	13	53.85	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-16	0.005	0.0015	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-17	0.005	0.0014	0.005	No	13	92.31	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-18	0.005	0.0041	0.005	No	13	46.15	No	0.05	NP (Cohens/xfrm)
Lithium (mg/L)	SGWC-19	0.005	0.0022	0.005	No	13	84.62	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-20	0.004886	0.004081	0.005	No	12	8.333	No	0.05	Param.
Lithium (mg/L)	SGWC-21	0.005	0.0027	0.005	No	13	76.92	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-22	0.005	0.0026	0.005	No	13	84.62	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-23	0.004698	0.003512	0.005	No	12	25	No	0.05	Param.
Lithium (mg/L)	SGWC-6	0.005	0.005	0.005	No	13	100	No	0.05	NP (NDs)
Lithium (mg/L)	SGWC-7	0.005163	0.004087	0.005	No	12	0	No	0.05	Param.
Lithium (mg/L)	SGWC-8	0.005	0.0021	0.005	No	13	61.54	No	0.05	NP (normality)
Lithium (mg/L)	SGWC-9	0.005	0.005	0.005	No	13	100	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-1 (bg)	0.00012	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-2 (bg)	0.00011	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-24 (bg)	0.00012	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-25 (bg)	0.000075	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-3 (bg)	0.000087	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-4 (bg)	0.00011	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWA-5 (bg)	0.000072	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-10	0.00013	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-11	0.000071	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-12	0.000093	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-13	0.00011	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-14	0.000089	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-15	0.00012	0.00007	0.002	No	13	38.46	No	0.05	NP (normality)
Mercury (mg/L)	SGWC-16	0.000076	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-17	0.00011	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-18	0.0002	0.00007	0.002	No	13	38.46	No	0.05	NP (normality)
Mercury (mg/L)	SGWC-19	0.00007	0.00007	0.002	No	13	100	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-20	0.000073	0.00007	0.002	No	13	84.62	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-21	0.0001	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-22	0.000099	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-23	0.000071	0.00007	0.002	No	13	76.92	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-6	0.00011	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-7	0.00011	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-8	0.000076	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)
Mercury (mg/L)	SGWC-9	0.0001	0.00007	0.002	No	13	92.31	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 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>
Molybdenum (mg/L)	SGWA-1 (bg)	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-2 (bg)	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-24 (bg)	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-25 (bg)	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-3 (bg)	0.002	0.0011	0.00278	No	12	91.67	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWA-4 (bg)	0.002309	0.001522	0.00278	No	12	33.33	No	0.05	Param.
Molybdenum (mg/L)	SGWA-5 (bg)	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-10	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-11	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-12	0.002	0.0012	0.00278	No	12	83.33	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-13	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-14	0.003	0.002	0.00278	No	12	91.67	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-15	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-16	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-17	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-18	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-19	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-20	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-21	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-22	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-23	0.002	0.002	0.00278	No	12	100	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-6	0.002	0.00099	0.00278	No	12	83.33	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-7	0.0033	0.002	0.00278	No	12	33.33	No	0.05	NP (normality)
Molybdenum (mg/L)	SGWC-8	0.002	0.0008	0.00278	No	12	91.67	No	0.05	NP (NDs)
Molybdenum (mg/L)	SGWC-9	0.002	0.001	0.00278	No	12	50	No	0.05	NP (normality)
Selenium (mg/L)	SGWA-1 (bg)	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-2 (bg)	0.00071	0.00017	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-24 (bg)	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-25 (bg)	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-3 (bg)	0.00071	0.00029	0.05	No	13	84.62	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-4 (bg)	0.00071	0.00041	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWA-5 (bg)	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-10	0.00071	0.00071	0.05	No	12	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-11	0.00071	0.00046	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-12	0.00071	0.00031	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-13	0.00071	0.0003	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-14	0.00071	0.00066	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-15	0.0021	0.00071	0.05	No	13	23.08	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-16	0.001	0.00071	0.05	No	13	61.54	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-17	0.00071	0.00024	0.05	No	12	91.67	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-18	0.017	0.0057	0.05	No	13	0	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-19	0.00096	0.00071	0.05	No	13	92.31	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-20	0.0011	0.00064	0.05	No	13	53.85	No	0.05	NP (normality)
Selenium (mg/L)	SGWC-21	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-22	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-23	0.00071	0.00033	0.05	No	13	84.62	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-6	0.00071	0.00057	0.05	No	13	84.62	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-7	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-8	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)
Selenium (mg/L)	SGWC-9	0.00071	0.00071	0.05	No	13	100	No	0.05	NP (NDs)

Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR Printed 6/28/2019, 12:37 PM

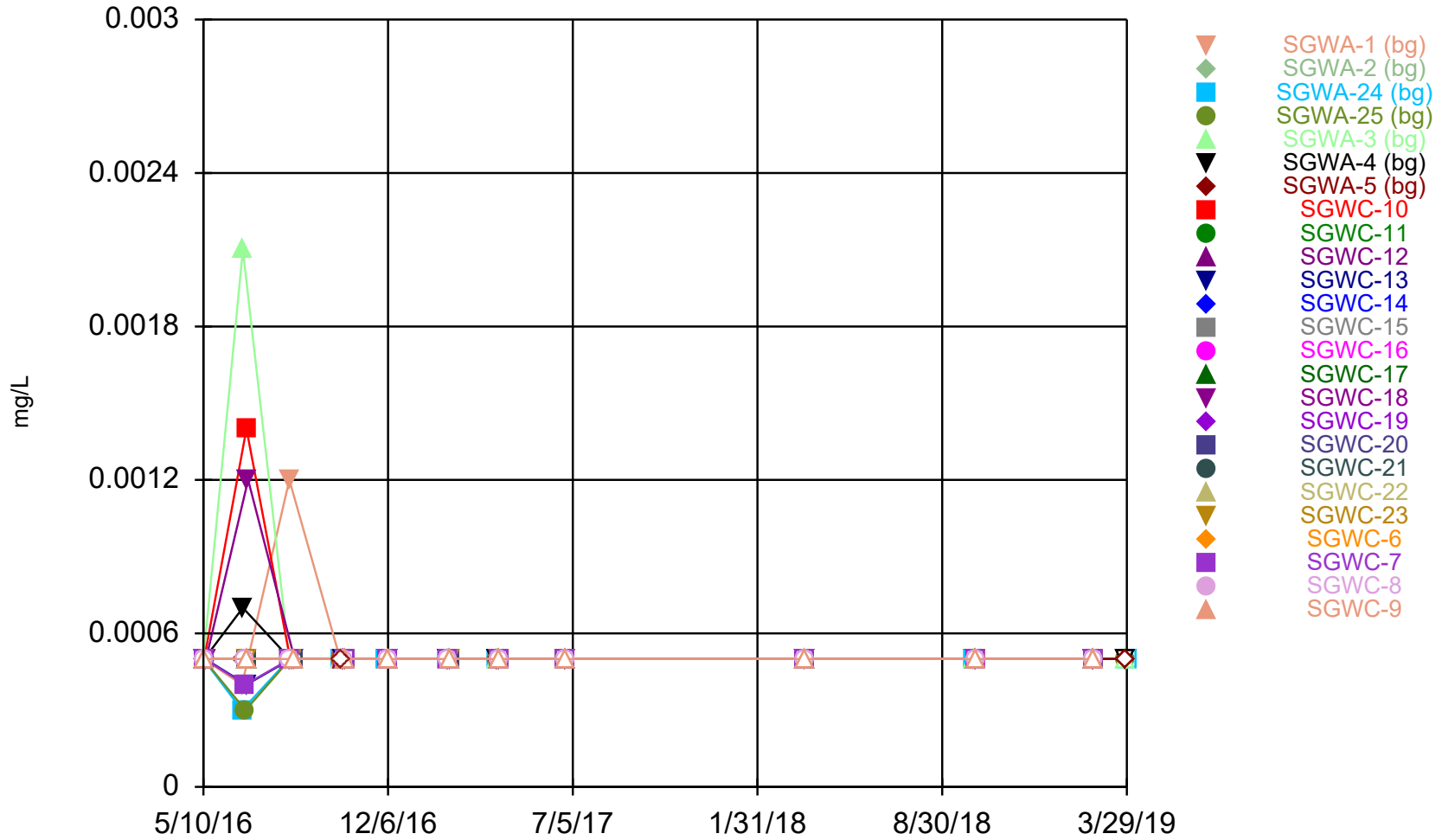
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (mg/L)	SGWA-1 (bg)	0.000095	0.00008	0.002	No	13	84.62	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-2 (bg)	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-24 (bg)	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-25 (bg)	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-3 (bg)	0.0001	0.000085	0.002	No	13	92.31	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-4 (bg)	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWA-5 (bg)	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-10	0.0001	0.000085	0.002	No	13	92.31	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-11	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-12	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-13	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-14	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-15	0.000098	0.000085	0.002	No	13	46.15	No	0.05	NP (normality)
Thallium (mg/L)	SGWC-16	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-17	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-18	0.0001706	0.0001303	0.002	No	12	0	No	0.05	Param.
Thallium (mg/L)	SGWC-19	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-20	0.00018	0.0001416	0.002	No	12	0	No	0.05	Param.
Thallium (mg/L)	SGWC-21	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-22	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-23	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-6	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-7	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-8	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)
Thallium (mg/L)	SGWC-9	0.000085	0.000085	0.002	No	13	100	No	0.05	NP (NDs)



APPENDIX B STATISTICAL ANALYSES

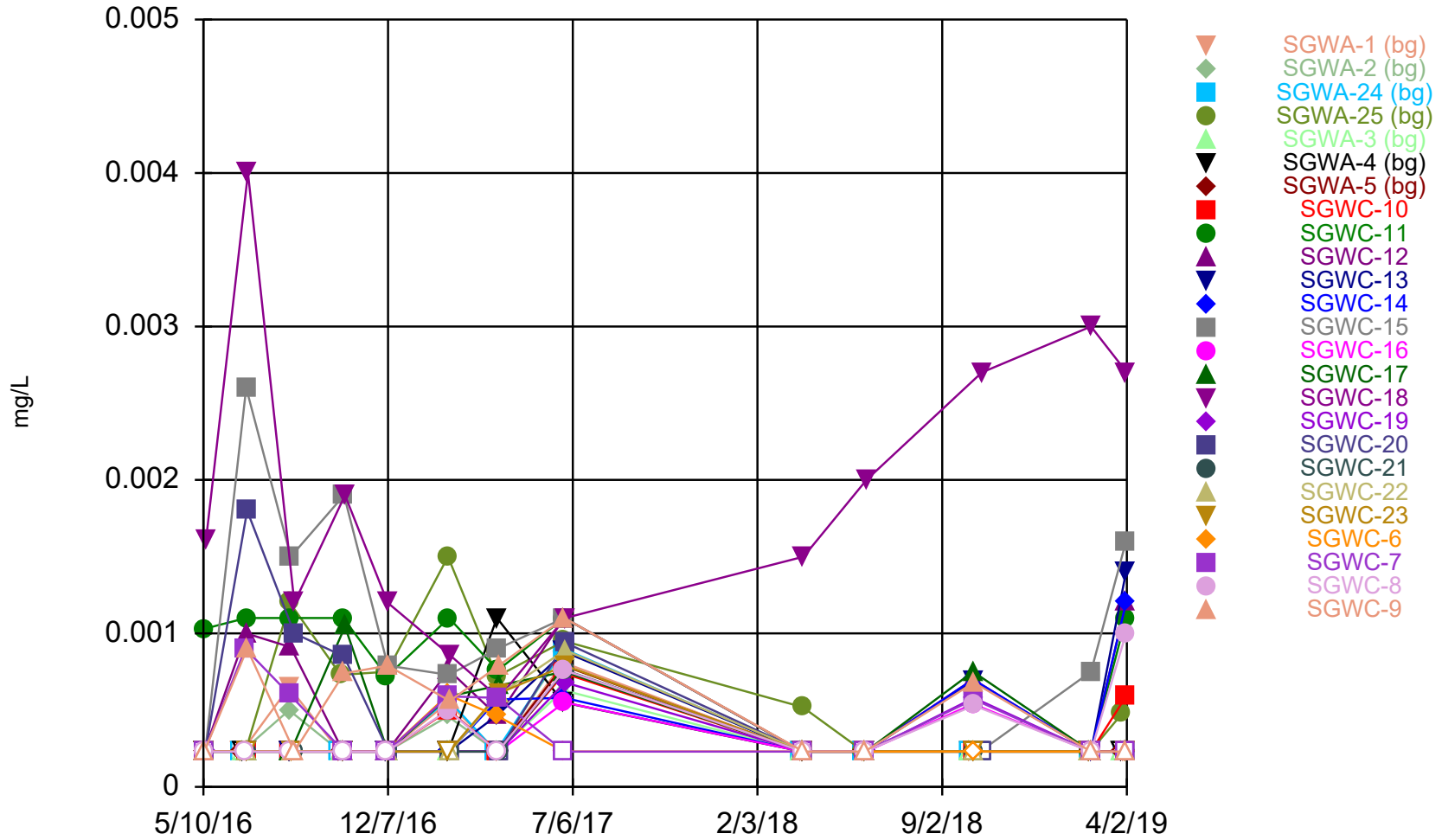
Appendix IV Time Series Plots

Time Series



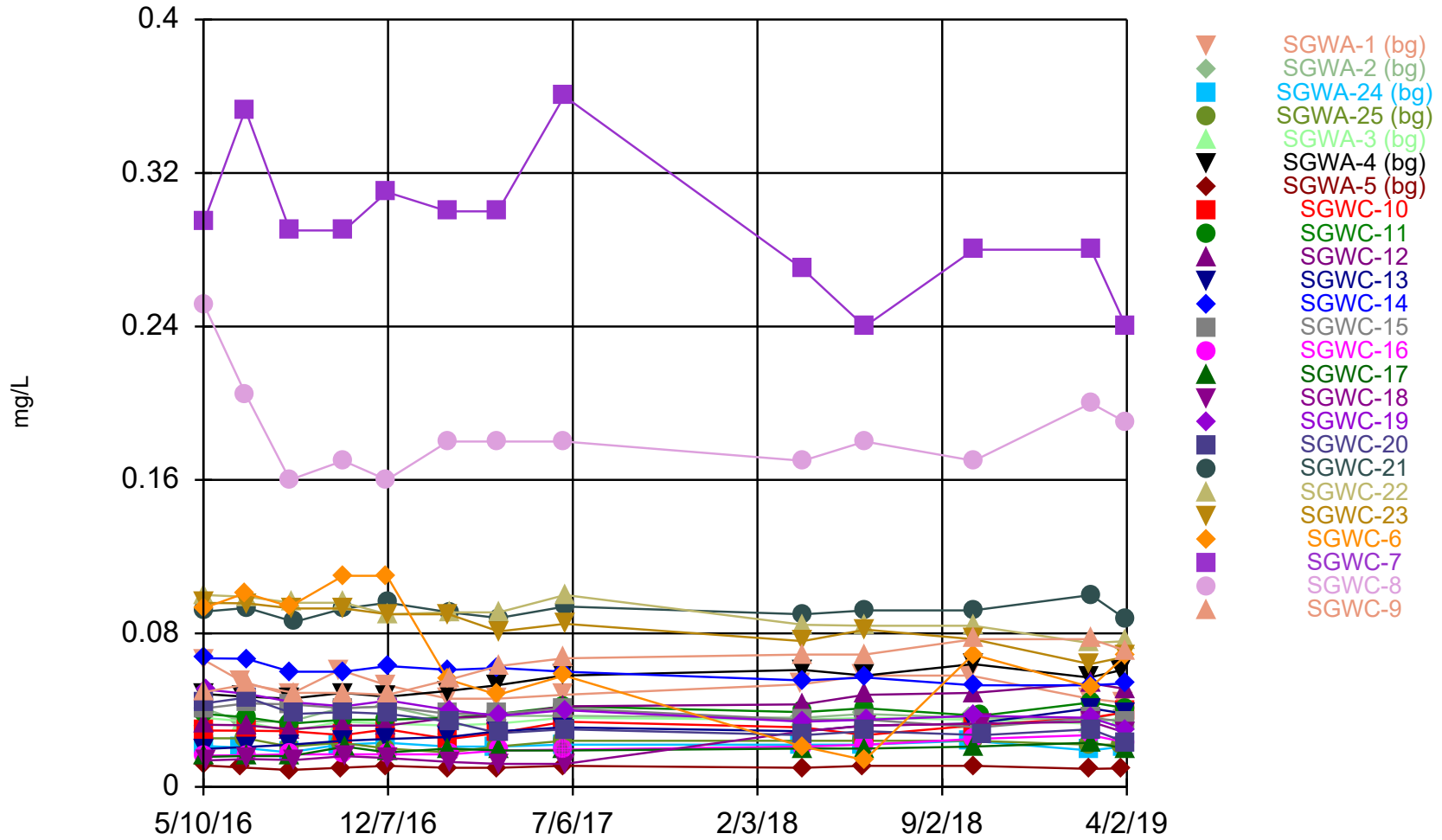
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Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



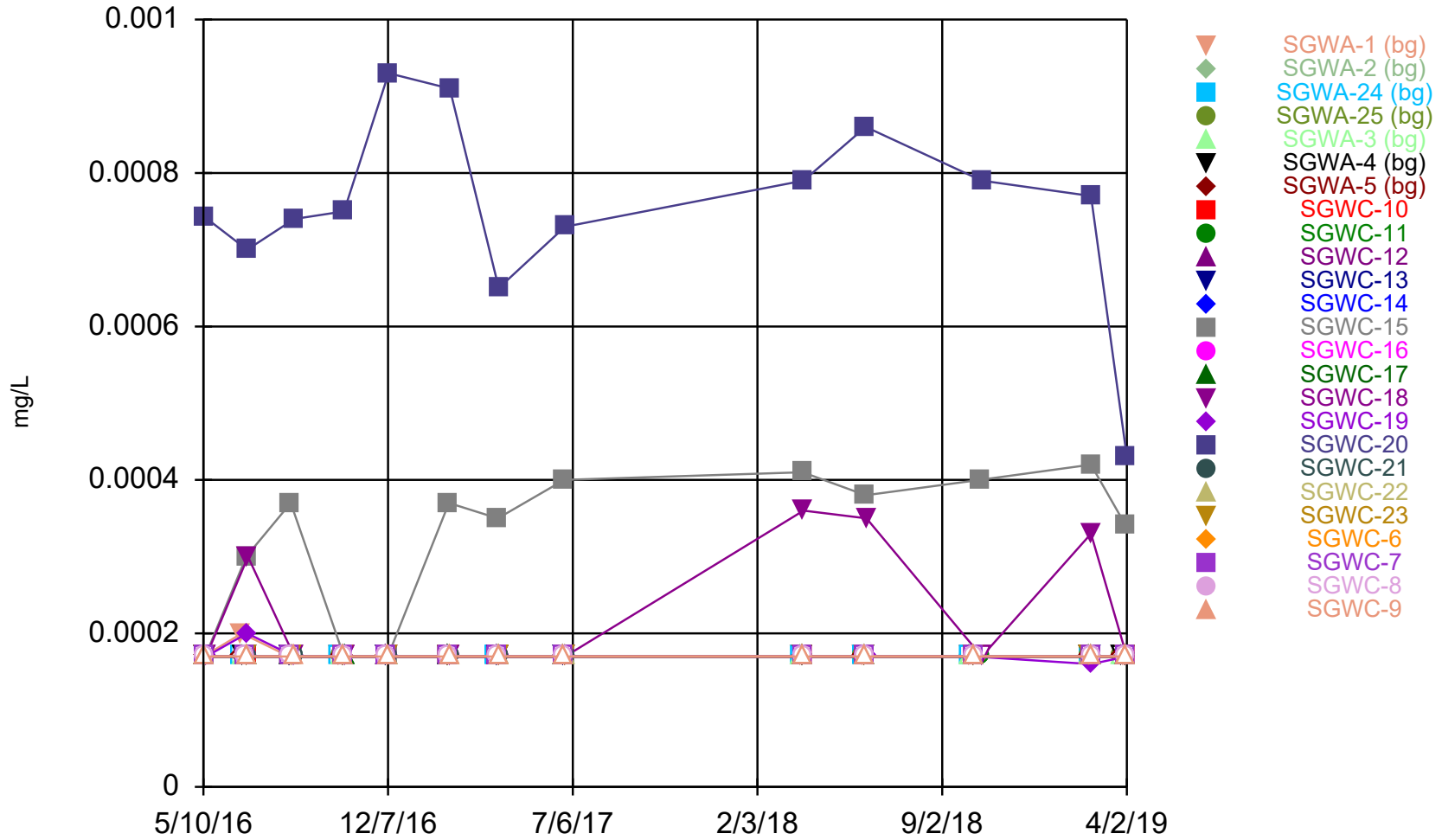
Constituent: Arsenic Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



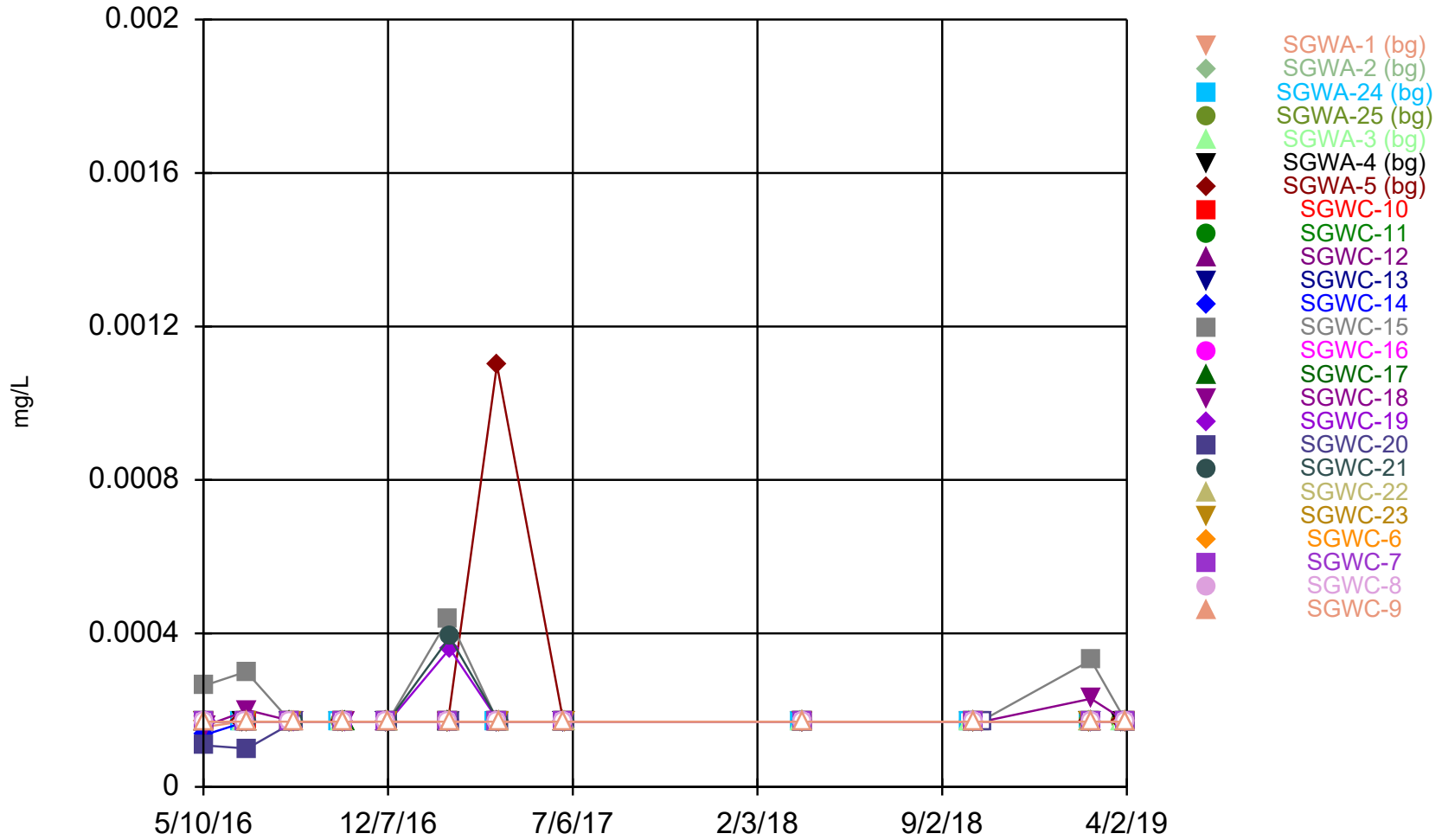
Constituent: Barium Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



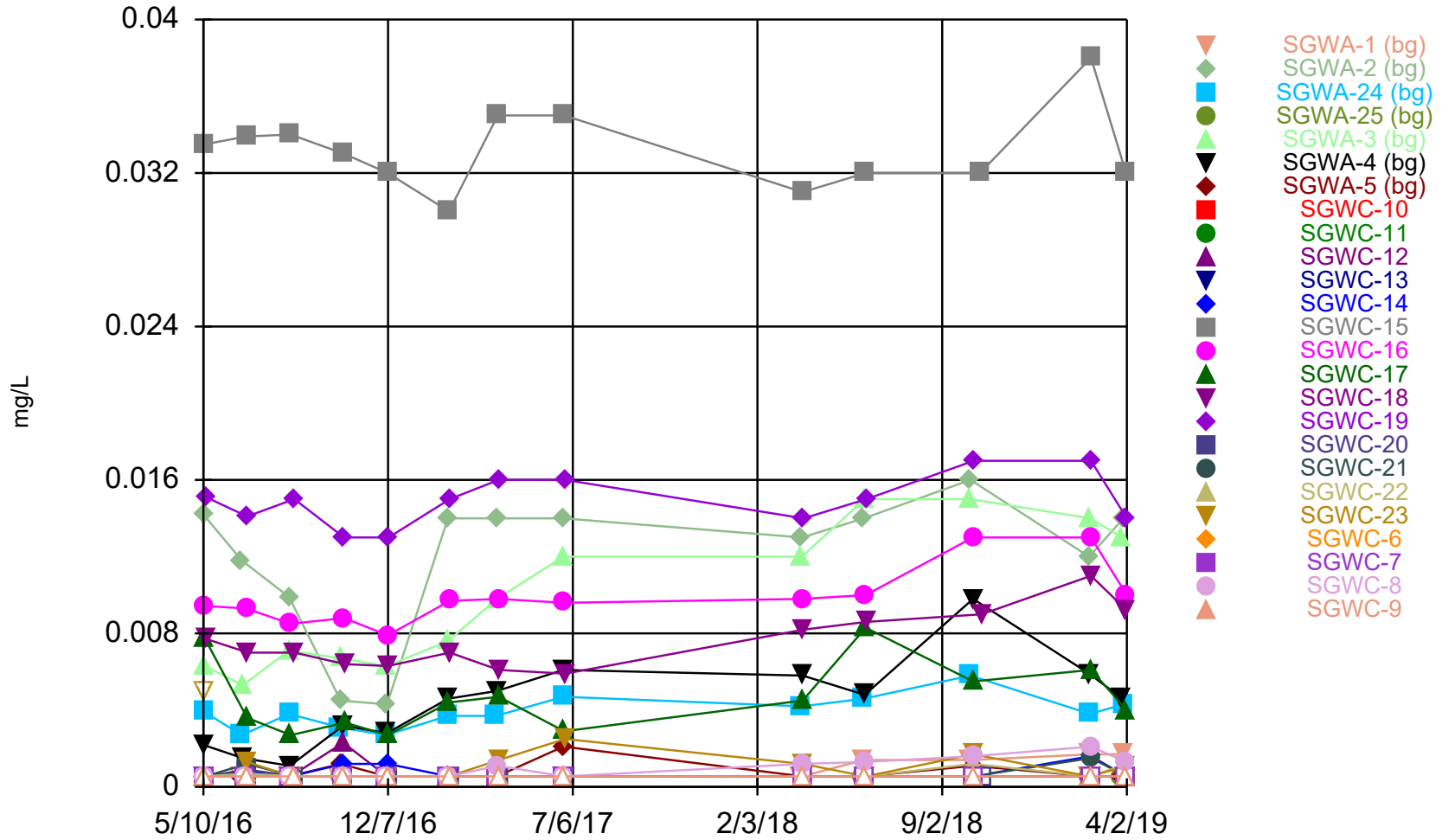
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Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Cadmium Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

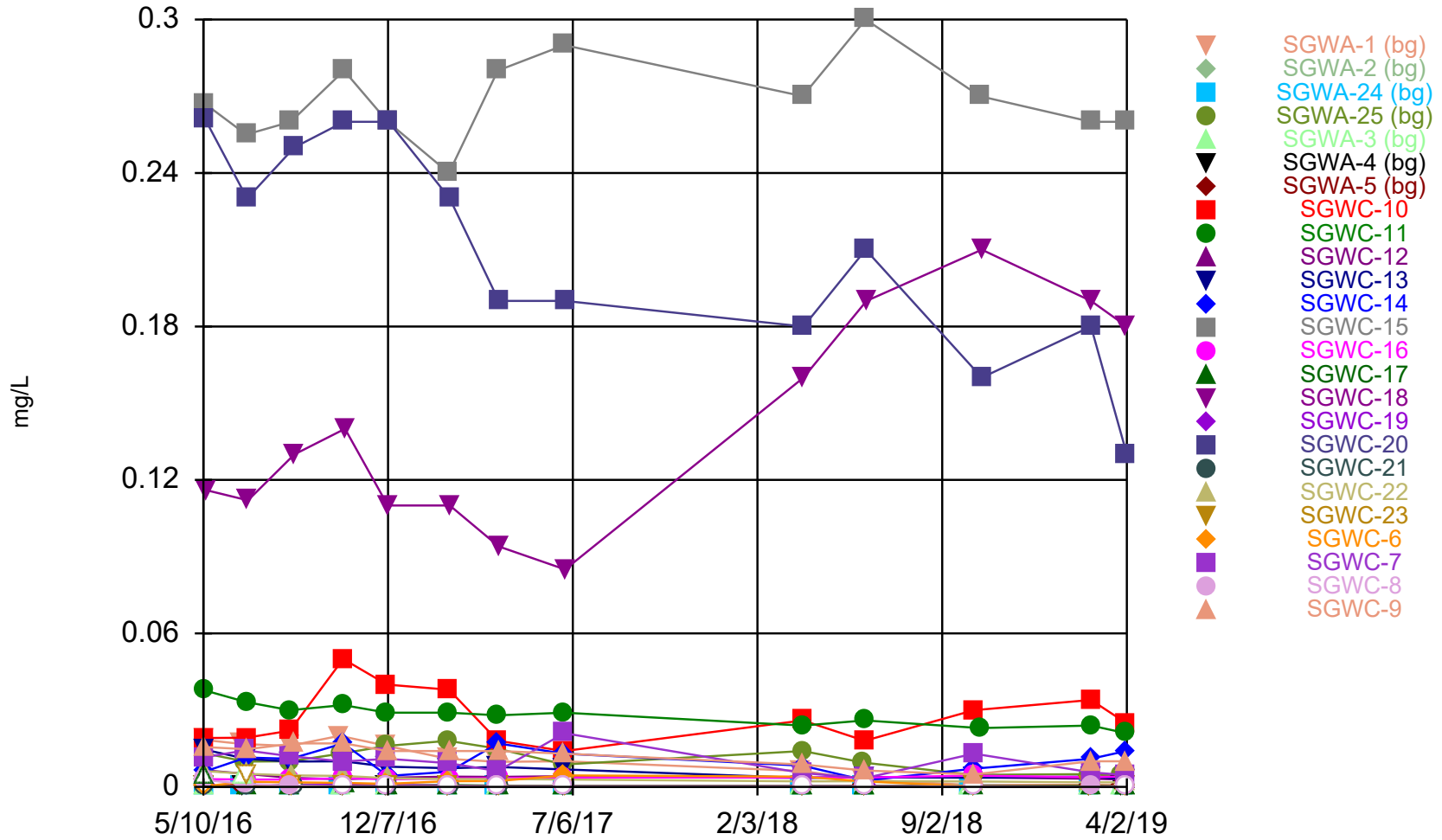
Time Series



Constituent: Chromium Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval

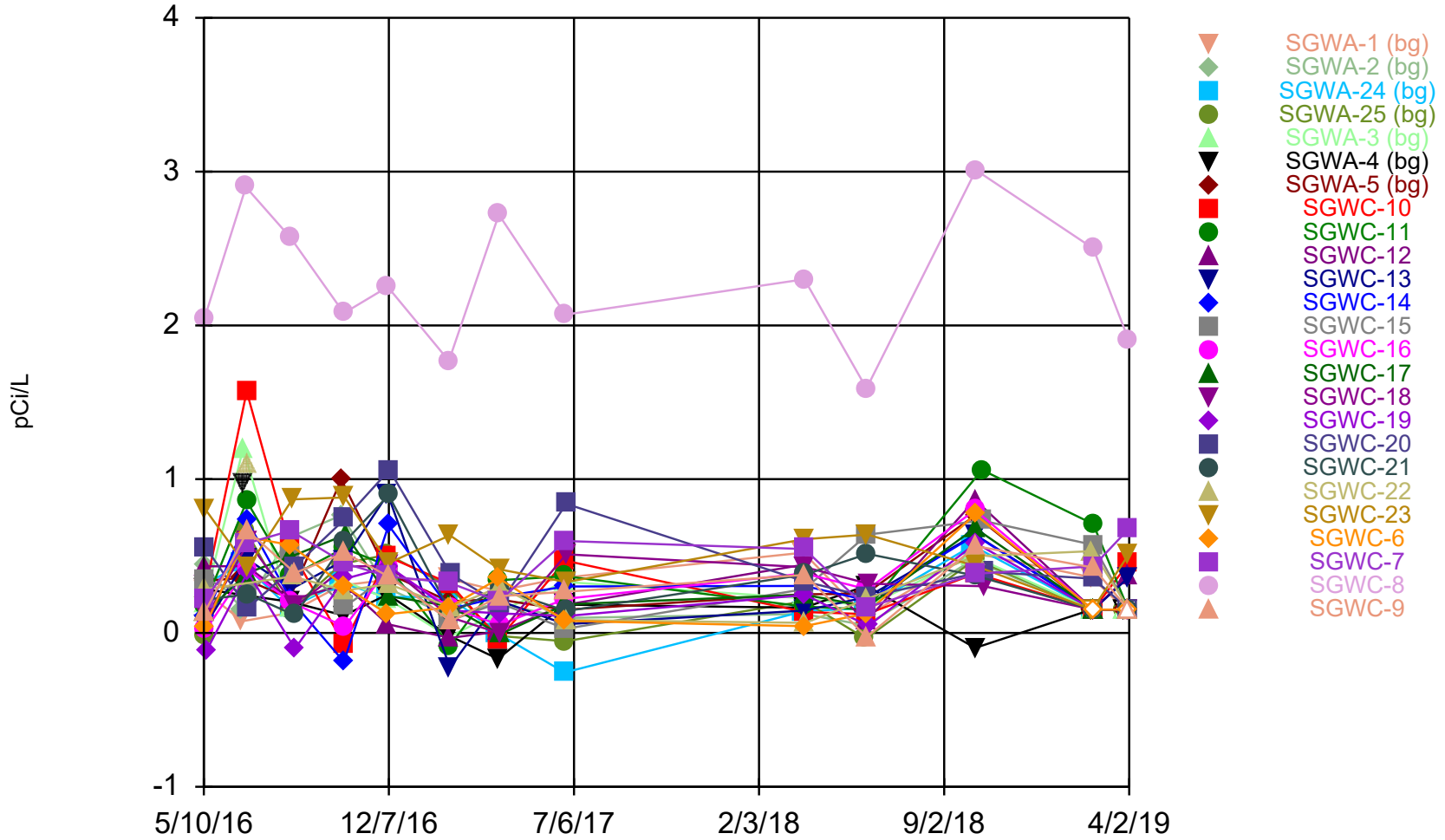
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Time Series



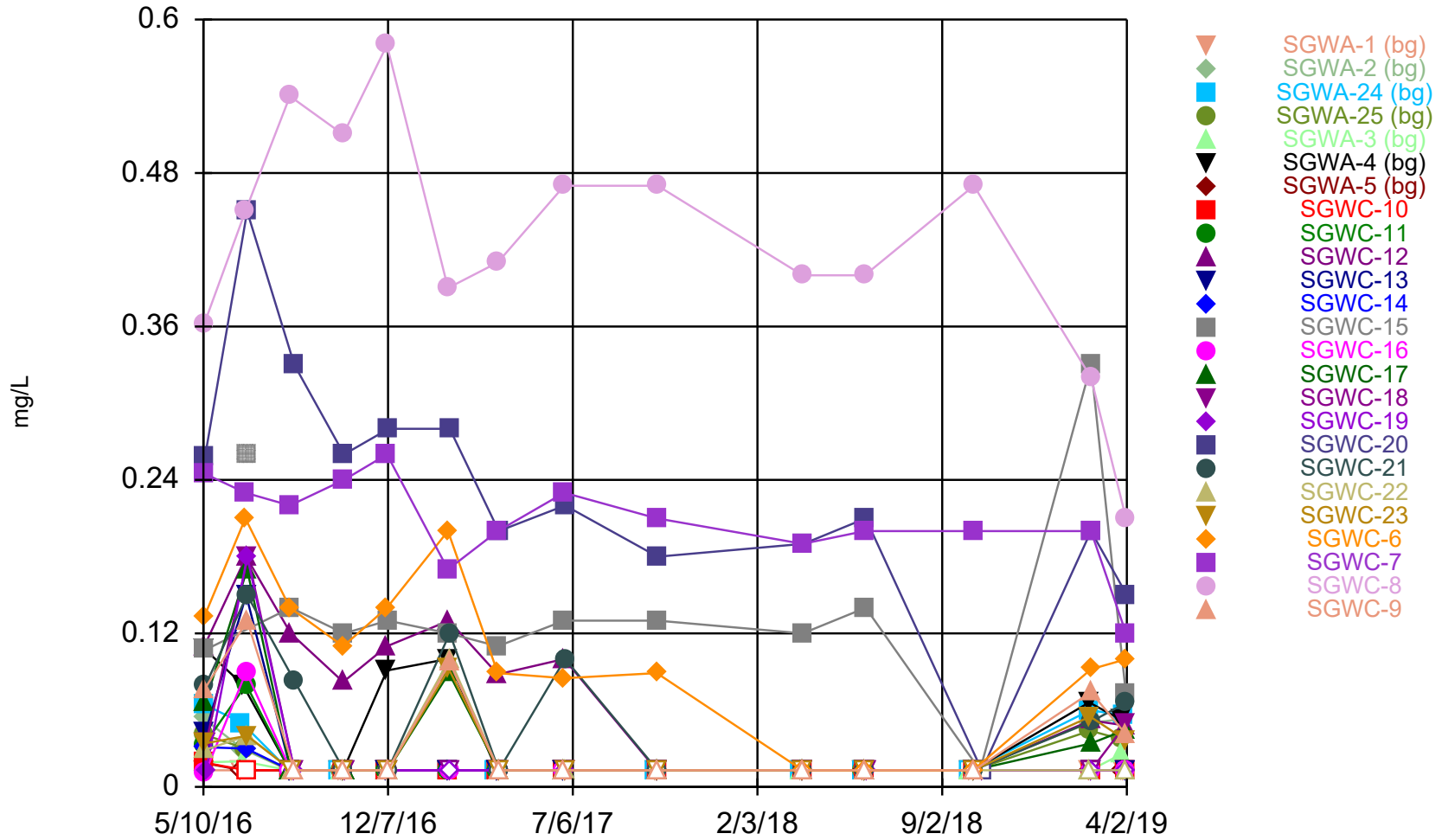
Constituent: Cobalt Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



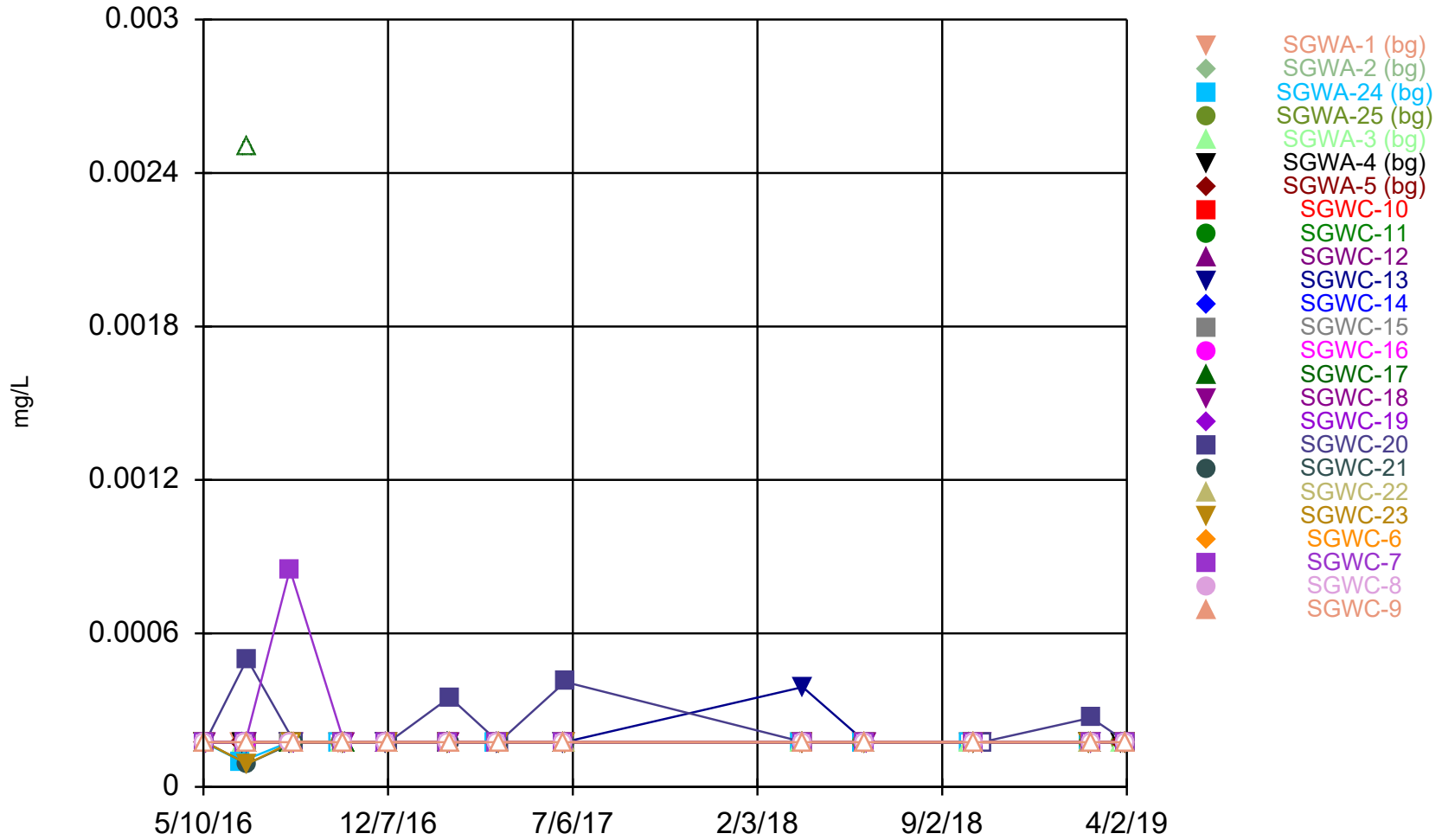
Constituent: Combined Radium 226 + 228 Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Int
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Fluoride Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

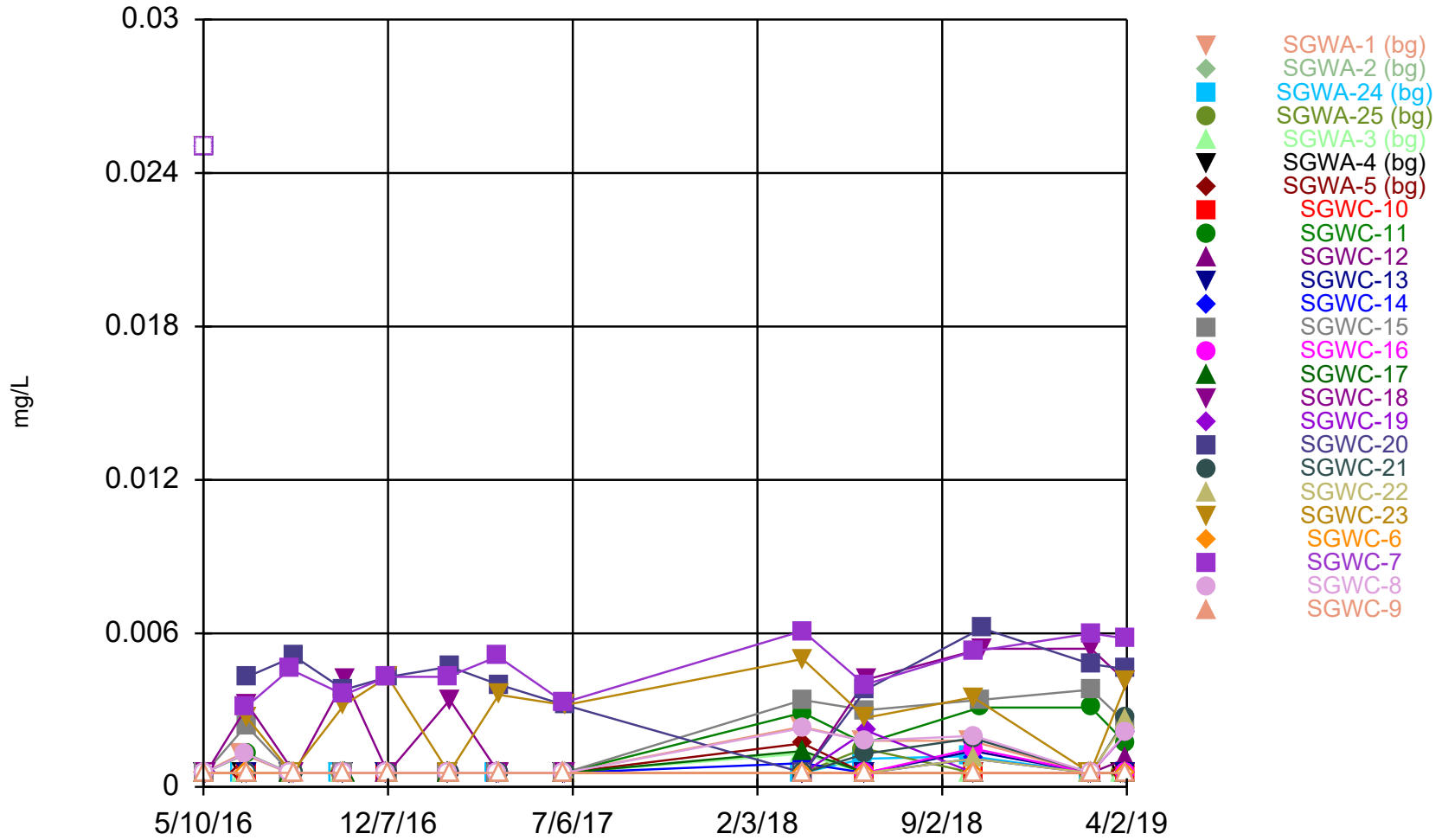
Time Series



Constituent: Lead Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval

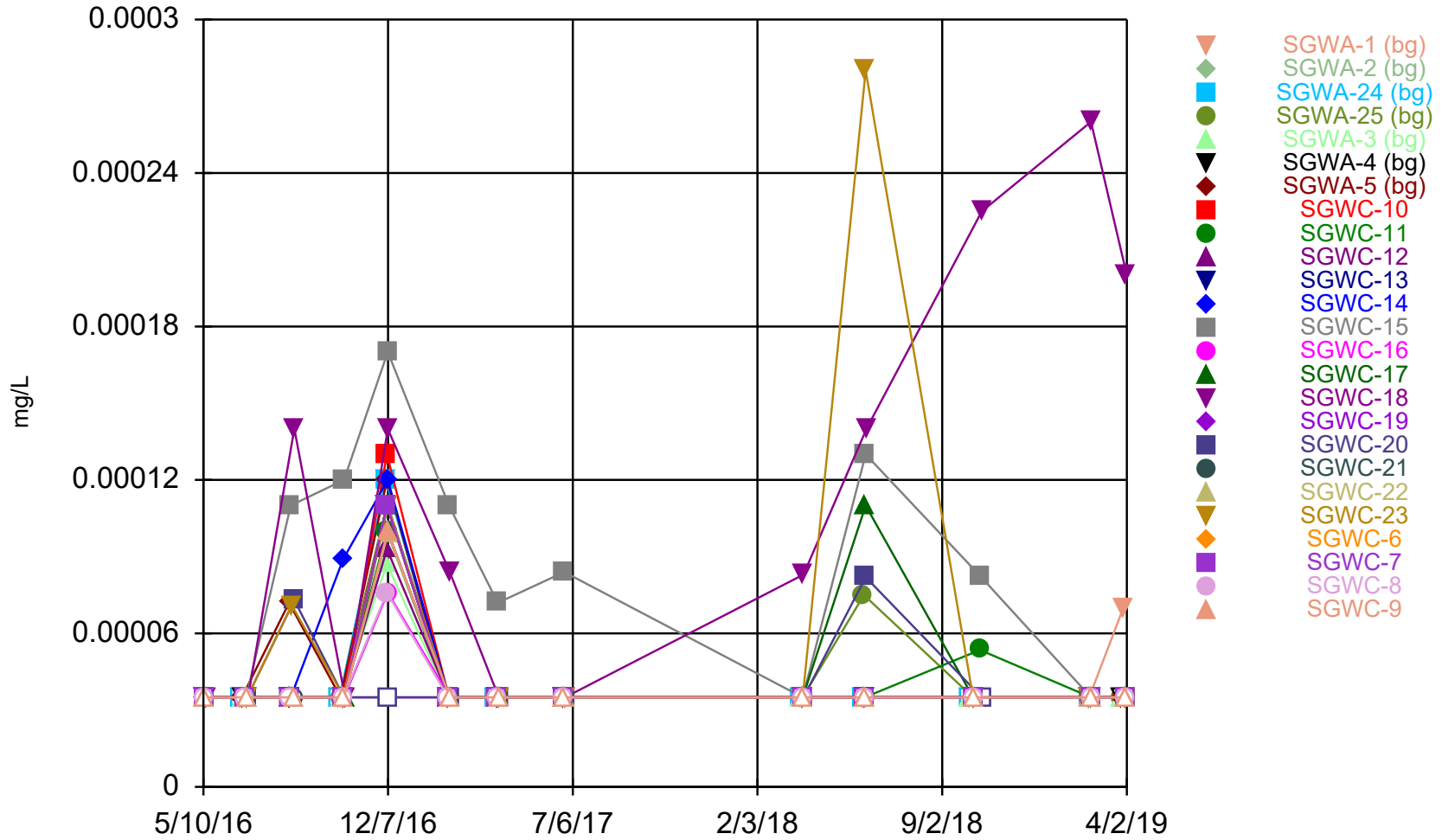
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Lithium Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

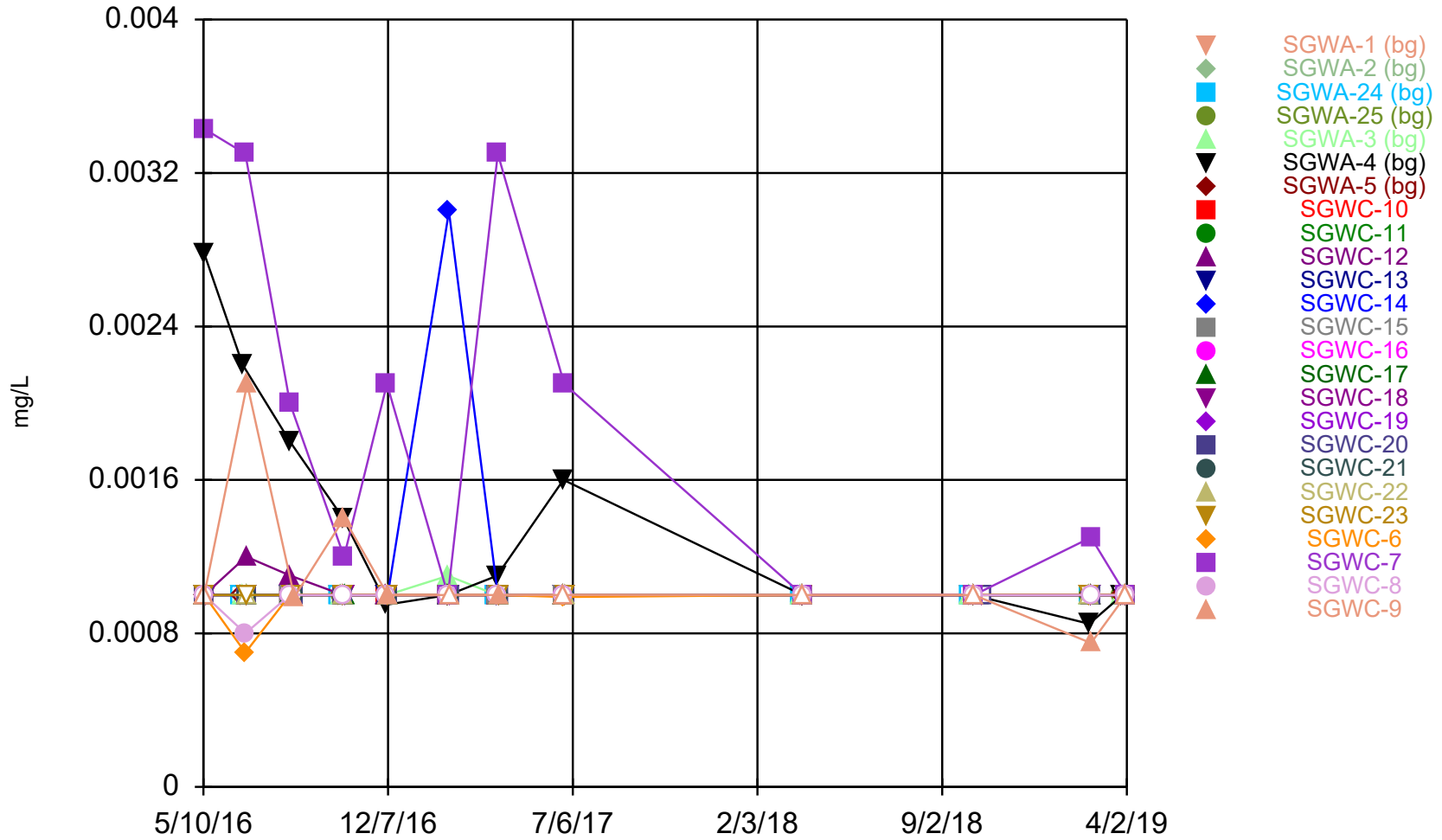
Time Series



Constituent: Mercury Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

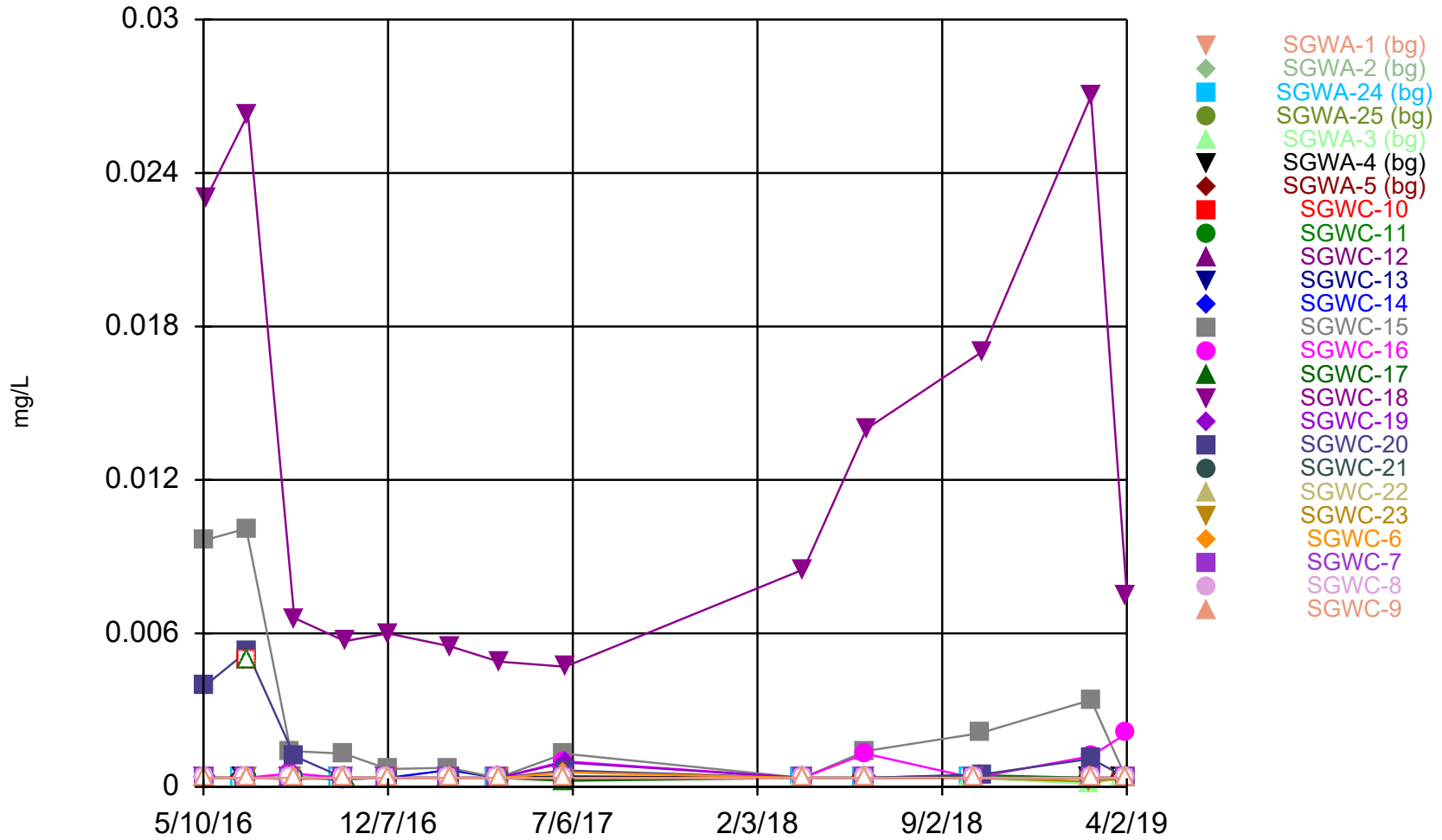
Time Series



Constituent: Molybdenum Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval

Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR

Time Series



Constituent: Selenium Analysis Run 5/20/2019 9:58 AM View: Interwell Confidence Interval
Scherer Client: Golder Associates Data: Scherer Ash Pond_CCR



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