

Georgia Power Company
FORMER PLANT ARKWRIGHT
AP-3 LANDFILL AND MONOFILL
PERMIT #: 011-025D(LI)
Bibb County

2019 FIRST SEMIANNUAL GROUNDWATER
MONITORING REPORT



PROFESSIONAL CERTIFICATION

This 2019 First Semi-Annual Groundwater Monitoring Report, Georgia Power Company – Former Plant Arkwright – AP-3 Landfill and Monofill has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. (ACC).

ACC certifies that all site constituents were below applicable Georgia Maximum Contaminant Level (MCL). The sulfate concentration of 430 milligrams per liter (mg/L) in the sample from upgradient well ARGWA-13 is above the Georgia Secondary MCL of 250 mg/L.

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1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c), Atlantic Coast Consulting, Inc. (ACC) has prepared this First 2019 Semiannual Groundwater Monitoring Report to document groundwater monitoring activities conducted at Georgia Power Company's (GPC) Former Plant Arkwright – AP-3 Landfill and Monofill (Site). GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

Plant Arkwright was retired in 2002 and decommissioned in 2003. AP-3 Landfill was initially constructed as a surface impoundment prior to 1958 but did not receive CCR until the 1970s. The CCR unit was closed in 2010 in accordance with the solid waste landfill regulations specified by GA EPD 391-3-4, in effect at the time of its closure. Closure construction of AP-3 Landfill and Monofill was utilizing a geosynthetic clay liner (GCL) overlain by 18 inches of cover soil. A closure certificate was issued by GA EPD for the Site on August 19, 2010. The Closure Certificate initiated the post-closure care period for the CCR unit.

AP-3 Landfill and Monofill are exempt from the requirements in 40 CFR Part 257 Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments in accordance with § 257.50(d) and (e), which states that the subpart does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015. These CCR units are, however, subject to the requirements of relevant portions of Georgia EPD 391-3-4-.10. The CCR unit referred to as AP-3 Landfill and Monofill and is defined as an Inactive CCR Landfill per Georgia Solid Waste Management Rule 391-3-4-.10(2)(a)(3).

Semiannual groundwater monitoring at AP-3 Landfill and Monofill is performed for an approved list of analytes with the post-closure care period requirements of GA EPD Permit #: 011-025D(LI). A minor modification approved on August 9, 2017 includes the Appendix III and IV sample parameters to the groundwater monitoring plan. To meet the requirements of GA EPD rule 391-3-4-.10, a permit application package for the Site was submitted to GA EPD in November 2018 and is currently under review by EPD. This report includes the background data for Appendix III and IV collected during 2018 – 2018 and the initial detection monitoring data collected in March 2019 following completion of background monitoring.

1.1 Site Description and Background

The Site is located in Bibb County, Georgia, approximately 6 miles northwest of the city of Macon and 2 miles east of the city of Arkwright. The CCR unit area comprises approximately 65 acres. The disposal facility closed in 2008, in accordance with the applicable Georgia Rules and Regulations at the time and then started post-closure care. Figure 1, Site Location Map, depicts the site location relative to the surrounding area.

1.2 Regional Geology and Hydrogeologic Setting

The Site is located in northern Bibb County in the Appalachian Highland District of the Piedmont Physiographic Province. The Piedmont Plateau occupies the northern half of Bibb County. The topography is rolling to hilly and the highest parts rise to about 800 feet above sea level. The main streams, having adjusted their courses to the structure of the underlying crystalline rocks, flow eastward to join the through-flowing Ocmulgee River, which receives the entire drainage of

the county. Owing to the variety of rocks underlying the Piedmont, the soils differ from place to place, but in general they are deep red and reasonably fertile. Regionally, igneous and metamorphic rocks are exposed in the extreme northern part of Bibb County, where the Site is located. The lithology consists of granite, biotite- granite gneiss, or a granite component in a diorite injection complex. All these rocks are highly weathered and where exposed are generally soft and friable (LeGrand, 1962). The site area is generally composed of fine to medium sandy silt to silty sand underlain by silty sand saprolite. Borings performed in the earlier site investigations indicate extremely weathered quartz-feldspathic gneiss, hornblende gneiss and schist.

Based on previously completed site studies, the range of hydraulic conductivities is from 10^{-3} to 10^{-4} centimeters per second.

1.3 Groundwater Monitoring Well Network and CCR Unit Description

As noted above, AP-3 Landfill and Monofill closed in 2010. A groundwater monitoring plan was approved on January 27, 2010. The GA EPD approved detection groundwater monitoring network includes 13 monitoring wells: upgradient wells GWA-3, GWA-5, GWA-12, GWA-13, and GWA-14, and downgradient wells GWC-7, GWC-8, GWC-9, GWC-10, GWC-15, GWC-16, GWC-17, and GWC-18. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1, Monitoring Network Well Summary). Figure 2, Well Location Map, shows the monitoring well locations.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following describes monitoring-related activities performed in March 2019. Because this is the first Semiannual Groundwater Monitoring Report submitted for the Site, following completion of background monitoring, it also describes activities performed prior to 2019 to establish the groundwater monitoring program. Samples were collected from each well in the monitoring system shown on Figure 2.

Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed at the Site.

2.1 Monitoring Well Installation/Maintenance

The number, spacing, and depths of the groundwater monitoring wells were selected by a qualified groundwater scientist based on the characterization of site-specific hydrogeologic conditions. Groundwater monitoring wells were designed to monitor the uppermost water-bearing zone. The existing groundwater monitoring network was included in the 2008 Design and Operation Plans approved by GA EPD in 2010.

2.2 Detection Monitoring Program

The March 2019 monitoring event is the ninth round of Appendix III data and is the initial detection monitoring event following the inclusion of Appendix III and IV constituents in accordance with a 2017 minor modification to the permit. A summary the analytes required by Appendix III, Appendix IV, and the existing permit is provided in Table 3, Summary of Groundwater Monitoring Parameters.

2.2.1 Background Monitoring for CCR Analytes

A minimum of eight (8) independent samples were collected from the network and analyzed for the constituents listed in Appendix III and IV. A table summarizing the results for the well is included in Table 4A, Summary of Background Groundwater Analytical Data – 2016-2018. Data reports for each sampling event are included in Appendix A, Laboratory Analytical and Field Sampling Reports.

2.2.2 Initial Detection Monitoring for CCR Analytes

Following completion of the eight independent sampling events for constituents listed in Appendix III and IV, groundwater samples were collected March 26-29, 2019 and analyzed for Appendix III constituents as part of the first semiannual detection monitoring event. A table summarizing the results for the well is included in Table 4B, Summary of Groundwater Analytical Data – March 2019. Data reports for the March 2019 sampling event are included in Appendix A.

2.2.3 Monitoring for Existing Approved Analytes

Semiannual groundwater monitoring has continued in accordance with the requirements of the 2010 EPD-approved Groundwater Monitoring Plan during implementation of Appendix III and IV monitoring. The eight inorganic analytes were again collected as part of the March 2019 monitoring event. A table summarizing the results for the wells is included in Table 4B. Data reports for the March 2019 sampling event are included in Appendix A.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

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

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater elevations are recorded from the groundwater monitoring well network at the Site. Groundwater elevations recorded during the monitoring events are summarized in Table 5, Summary of Groundwater Elevations. Groundwater elevation data was used to develop Figure 3, March 2019 Water Table Contour Map. The general direction of groundwater flow across the site is towards the south. The groundwater flow pattern observed during the March 2019 monitoring event is consistent with historical patterns.

The groundwater flow velocity at Plant Arkwright was calculated using a derivation of Darcy's Law.

Specifically:

Equation

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

Groundwater flow velocities were calculated for the Site based on hydraulic gradients, average permeability based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). Groundwater flow velocities have been calculated and are tabulated on Table 6, Groundwater Flow Velocity Calculations. The calculated flow velocity is 0.11 feet per day or 40 feet per year.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR §257.93(a). Purging and sampling was performed using a dedicated bladder pump in each well. All non-disposable equipment was decontaminated before use and between well locations.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, and dissolved oxygen) during well purging to verify stabilization prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- $\pm 5\%$ for specific conductance
- $\pm 10\%$ for dissolved oxygen (DO) where DO > 0.5 mg/L; no criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 10 nephelometric turbidity units (NTU)

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

3.3 Laboratory Analyses

Groundwater samples collected in March 2019 for detection monitoring event were analyzed for Appendix III monitoring parameters and the inorganic parameters required by the currently approved permit. Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix A.

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

3.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one QA/QC sample per every 10 groundwater assessment samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicate samples were collected during each sampling event. QA/QC sample data were evaluated during data validation and are included in Appendix A.

Groundwater quality data in this report was validated in accordance with US EPA guidance (US EPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestions spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using US EPA procedures as guidance (US EPA, 2017).

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (PQL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses.

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the groundwater monitoring network approved by GA EPD in 2010 and following the appropriate method.

4.1 Statistical Methods

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

4.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for Appendix III parameters boron and pH. Monitoring results for calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS) were evaluated using intrawell prediction limits combined with a 1-of-3 verification resample plan. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified. A summary of the statistical methodology used at the Site for routine groundwater monitoring is provided in Table 7, Summary of Statistical Methods.

4.1.2 EPD Permit-Required Metals

Statistical tests used to evaluate the groundwater monitoring data consist of intrawell prediction limits combined with a 1-of-2 verification resample plan for all required metals. The current permit also requires monitoring of chloride and sulfate, however these two analytes are also included in Appendix III and are therefore analyzed as described in Section 4.1.1. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified. Table 7 includes a summary of the metals included in the EPD permit and the statistical method.

4.2 Statistical Analyses Results

Analytical data from the initial CCR detection monitoring event in March 2019 at the Site was statistically analyzed in accordance with the statistical methods.

Resampling to confirm SSIs was not performed; therefore, initial SSIs are treated as verified. Wells and analytes with all data below the reporting limit do not require statistical analysis. A summary of wells exhibiting 100% non-detects is included in Appendix B, Statistical Analyses. The statistical analysis and comparison to prediction limits are included as Appendix B.

4.2.1 First Semiannual Detection Monitoring Event

Based on the statistical results presented in Appendix B, the following summarizes parameters exhibiting SSIs:

- Boron: GWC-8, GWC-18
- Calcium: GWC-15, GWC-16
- pH: GWC-16, GWC-17
- Sulfate: GWC-16
- TDS: GWC-16

Within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that a source other than the Site was the cause, or (2) implement assessment monitoring.

4.2.2 Appendix IV Background Data

The Appendix IV groundwater quality will be compared to groundwater protection standards if assessment monitoring is implemented. GPC is currently performing detection monitoring for the Site per rule 391-3-4-.10(6)(a) and has not implemented assessment monitoring. Therefore, statistical analysis of the Appendix IV data has not been performed.

4.3 Statistical Analysis Results for Parameters Required by Existing Permit

Analytes required by the existing state permit were analyzed during this event. Analytical data below the reporting limit do not require statistical analysis. A summary of wells exhibiting 100% non-detects is included in Appendix B.

Concentrations of target metals were within their respective intrawell prediction limits during this sampling event. Sulfate and chloride are required by the existing permit and are included in Appendix III. As noted in section 4.2.1 no concentration of chloride is considered an SSI. Sulfate has historically been evaluated by inter-well methods per the Groundwater Monitoring Plan approved in 2010, however recent statistical screening has indicated that intra-well methods may be more appropriate. As noted in section 4.2.1, there is an unverified SSI for sulfate at GWC-16.

All analytes were below the Georgia drinking water standards at each well, with the exception of sulfate in upgradient monitoring well GWA-13. The sulfate concentration of 430 milligrams per liter (mg/L) in GWA-13 exceeded the Georgia Secondary MCL of 250 mg/L.

5.0 MONITORING PROGRAM STATUS

The Site is in detection monitoring. SSIs of Appendix III parameters have been identified. In accordance with rule 391-3-4-.10(6)(a). Plant Arkwright has 90 days from the date of SSI determination to either (1) prepare a demonstration that a source other than the Site was the cause, or (2) implement assessment monitoring.

6.0 CONCLUSIONS AND FUTURE ACTIONS

Background monitoring has been completed in accordance with rule 391-3-4-.10(6)(a). Statistical evaluations of the groundwater monitoring data for AP-3 identified SSIs of Appendix III groundwater monitoring parameters. GPC will prepare an alternate source demonstration or initiate assessment monitoring program within 90 days.

The next semiannual monitoring event is planned for October 2019.

7.0 REFERENCES

- Driscoll, F.G., 1986 *Groundwater and Wells*, Johnson Screens, Saint Paul, Minnesota, 1089 pp.
- EPRI, 2015 Technical Report, Groundwater Monitoring Guidance for the Coal Combustion Residuals Rule.
- Freeze, R.A. and Cherry, J.A. 1979, *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.
- Georgia Environmental Protection Division, 1997, Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia – Circular 14.
- LeGrand, H. E. 1962, *Geology and Ground-water Resources of the Macon Area, Georgia*. The Geological Survey Bulletin No. 72.
- Puls, R.M. and Barcelona, M.J., 1996, Low flow (minimal drawdown) ground water sampling procedures. USEPA/ORD EPA/540/S-95/504. Washington, D.C.: USEPA.
- Sanitas: Groundwater Statistical Software, Sanitas Technologies, Shawnee, KS, 2007. www.sanitastech.com.
- Southern Company Services, Inc., 1991, Site Acceptability Study for a Proposed Coal Ash Monofill at Plant Arkwright, Georgia.
- Southern Company Services, Inc., 2005, Plant Arkwright Ash Ponds 2 and 3 and Ash Monofill Site Acceptability Report, Revision 1.
- Southern Company Services, Inc., 1993-1994 & 2008, Plant Arkwright Coal Ash Monofill Groundwater Monitoring Plan.
- Southern Company Services, 2016, Field Sampling Plan – Former Plant Arkwright.
- State Waste Management Board. 2016. State Solid Waste Management Regulations – (9VAC20 81 et seq.). January.
- US EPA, 1989 Risk Assessment Guidance for Superfund (RAGS), Vol. I: Human Health Evaluation Manual (Part A) (540-1-89-002).

US EPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

US EPA. 2011. *Data Validation Standard Operating Procedures*. Science and Ecosystem Support Division. Region IV. Athens, GA. September.

US EPA. 2017. National Functional Guidelines for Inorganic Superfund Methods Data Review. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.

TABLES

Table 1
Monitoring Network Well Summary

Well	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (ft MSL)	Purpose
GWA-3	12/9/1992	42.30	346.31	32.30	356.31	Upgradient
GWA-5	1/10/1994	33.10	343.35	23.10	353.35	Upgradient
GWA-12	12/18/2008	32.31	340.25	22.31	350.25	Upgradient
GWA-13	12/18/2008	43.54	328.27	33.54	338.27	Upgradient
GWA-14	2/9/2009	58.18	329.98	48.18	339.98	Upgradient
GWC-7	12/11/2003	48.27	303.98	38.27	313.98	Downgradient
GWC-8	12/10/2003	43.22	312.48	33.22	322.48	Downgradient
GWC-9	12/10/2003	37.97	329.41	27.97	339.41	Downgradient
GWC-10	12/9/2003	38.32	329.76	28.32	339.76	Downgradient
GWC-15	12/18/2008	42.56	333.34	32.56	343.34	Downgradient
GWC-16	12/18/2008	34.52	330.69	24.52	340.69	Downgradient
GWC-17	12/18/2008	33.93	334.59	23.93	344.59	Downgradient
GWC-18	12/18/2008	50.78	304.21	40.78	314.21	Downgradient

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.

Table 2
Groundwater Sampling Event Summary

Well	Hydraulic Location	Aug. 29-Sept. 2, 2016	Oct. 24-26, 2016	Jan. 23-27, 2017	Apr. 10-12, 2017	Jun. 19-22, 2017	Oct. 24-26, 2017	Apr. 9-11, 2018	Oct. 16-17, 2018	Mar. 26-29, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection
GWA-3	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWA-5	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWA-12	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWA-13	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWA-14	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-7	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-8	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-9	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-10	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-15	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-16	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-17	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
GWC-18	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01

Notes:

1. Events shown represent CCR monitoring only. Ongoing monitoring for previously permitted analytes have occurred at least twice per year historically.
2. BG-XX = Background Event (Appendix III and Appendix IV).
3. D-XX = Detection Event (Appendix III).

Table 3
Summary of Groundwater Monitoring Parameters

Appendix III (40 CFR 257)	Appendix IV (40 CFR 257)	Existing State Permit
Boron	Antimony	Arsenic
Calcium	Arsenic	Barium
Chloride	Barium	Cadmium
Fluoride	Beryllium	Chloride
pH	Cadmium	Lead
Sulfate	Chromium	Selenium
Total Dissolved Solids	Cobalt	Silver
	Fluoride	Sulfate
	Lead	
	Lithium	
	Mercury	
	Molybdenum	
	Radium 226 and 228 combined	
	Selenium	
	Thallium	

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3
		8/31/2016	10/25/2016	1/24/2017	4/11/2017	6/20/2017	10/25/2017	4/10/2018	10/16/2018	
APPENDIX III	Boron	N/R	ND	ND (0.0068 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	5.4	4.47	5.8	5.3	5.8	5.9	5.9	5.8
	Chloride	(250)	2.7	3.1	2.5	2.4	2.5	2.3	2.4	2.5
	Fluoride	4	ND	ND (0.14 J)	ND	ND	ND	ND	ND	ND (0.10 J)
	Sulfate	(250)	ND	ND (0.30 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	80	65	70	64	52	72	86	74
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00067 J)	ND (0.00064 J)	ND	ND	ND
	Barium	2	0.018	0.0160	0.017	0.016	0.020	0.019	0.019	0.018
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0030	ND (0.0028 J)	0.0031	0.0029	0.0037	0.0031	0.0036	0.0035
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND (0.0017 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.00093 J)	ND	ND
	Radium	5	0.226 U	0.273 U	0.110 U	0.358 U	0.265 U	0.500	0.323	0.798
Selenium	0.05	ND	ND	ND	ND	ND	ND (0.00032 J)	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5
		8/30/2016	10/25/2016	1/24/2017	4/11/2017	6/20/2017	10/25/2017	4/10/2018	10/16/2018	
APPENDIX III	Boron	N/R	ND	ND (0.0073 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	5.1	4.76	5.6	4.7	5.4	6.0	5.3	5.6
	Chloride	(250)	4.3	5.0	5.1	4.4	5.0	5.3	5.1	5.3
	Fluoride	4	ND	ND (0.09 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.40 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	58	34	120	76	36	64	60	54
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00077 J)	ND (0.00052 J)	ND	ND	ND
	Barium	2	0.026	0.0293	0.028	0.024	0.027	0.030	0.028	0.027
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0012 J)	ND (0.0014 J)	ND (0.0012 J)	ND	ND	ND	ND (0.0012 J)	ND (0.0012 J)
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.000070 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.505 U	0.177 U	0.107 U	-0.0587 U	0.503	0.512	0.262 U	0.989
Selenium	0.05	ND	ND	ND	ND	ND	ND (0.00027 J)	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-12	
		8/30/2016	10/24/2016	1/23/2017	4/11/2017	6/21/2017	10/25/2017	4/10/2018	10/16/2018	
APPENDIX III	Boron	N/R	ND (0.032 J)	ND (0.0406 J)	ND (0.023 J)	ND (0.025 J)	ND	ND (0.028 J)	ND (0.027 J)	ND (0.023 J)
	Calcium	N/R	11	10.4	12	12	12	13	13	12
	Chloride	(250)	11	12	11	11	11	10	9.9	11
	Fluoride	4	ND	ND (0.10 J)	ND	ND	ND	ND	ND	ND (0.10 J)
	Sulfate	(250)	9.5	11	11	9.1	10	11	9.5	10
	TDS	(500)	100	136	16	120	140	120	130	150
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00076 J)	ND	ND	ND	ND
	Barium	2	0.062	0.0674	0.069	0.064	0.074	0.070	0.073	0.069
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0012 J)	ND (0.0011 J)	ND	ND (0.0011 J)	ND	ND	ND (0.0013 J)	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND (0.0002 J)	ND	ND	ND	ND	ND	ND
	Lithium	N/R	0.0052	ND	ND (0.0039 J)	ND (0.0040 J)	ND (0.0041 J)	0.0056	0.0070	ND (0.0045 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.000072 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.10	0.808 U	0.121 U	0.378 U	0.511	0.587	0.513	0.530
Selenium	0.05	ND	ND	ND	ND	ND (0.00025 J)	ND (0.00027 J)	ND (0.00033 J)	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13
		8/31/2016	10/25/2016	1/24/2017	4/11/2017	6/21/2017	10/25/2017	4/9/2018	10/16/2018	
APPENDIX III	Boron	N/R	0.10	0.204	0.064	0.081	0.13	0.17	0.059	0.34
	Calcium	N/R	110	150	78	78	110	120	49	110
	Chloride	(250)	5.7	7.9	4.4	4.3	5.5	5.2	3.8	6.0
	Fluoride	4	ND	ND (0.08 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	600	820	370	340	540	580	230	520
	TDS	(500)	1000	1280	590	610	880	900	440	910
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00063 J)	ND	ND	ND	ND (0.00055 J)
	Barium	2	0.041	0.0429	0.025	0.024	0.034	0.030	0.023	0.028
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	0.0053	ND (0.0048 J)	ND (0.0032 J)	ND (0.0036 J)	0.0052	0.0059	0.0056	0.0057
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.0018 J)	ND	ND
	Radium	5	0.788	0.503 U	0.369	0.710	0.124 U	0.981	0.157 U	0.305 U
	Selenium	0.05	0.017	0.0257	0.0097	0.0079	0.019	0.022	0.0063	0.021
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14
		8/31/2016	10/25/2016	1/23/2017	4/11/2017	6/20/2017	10/25/2017	4/9/2018	10/16/2018	
APPENDIX III	Boron	N/R	ND (0.040 J)	ND (0.0650 J)	ND (0.031 J)	ND (0.043 J)	ND (0.029 J)	ND (0.041 J)	ND (0.040 J)	ND (0.046 J)
	Calcium	N/R	31	38.5	25	33	34	28	30	41
	Chloride	(250)	5.4	9.3	5.1	4.1	4.1	3.8	3.9	4.3
	Fluoride	4	ND (0.12 J)	0.53	0.40	0.31	0.27	0.29	0.25	0.33
	Sulfate	(250)	19	42	12	7.1	8.5	9.1	11	14
	TDS	(500)	330	459	340	300	210	280	280	48
APPENDIX IV	Antimony	0.006	ND (0.0017 J)	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	0.0032	ND	ND (0.00088 J)	ND (0.00095 J)	ND (0.00099 J)	ND	ND	ND (0.00083 J)
	Barium	2	0.076	0.0390	0.044	0.038	0.057	0.050	0.049	0.060
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND (0.00039 J)	ND	ND	ND	ND	ND	ND (0.00052 J)	ND (0.00071 J)
	Chromium	0.1	ND	ND	0.010	ND	ND	ND	ND (0.0019 J)	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	0.0013	ND	ND	ND	ND	ND
	Lithium	N/R	0.0053	ND	ND (0.0043 J)	ND	ND (0.0042 J)	0.0061	0.0052	0.0052
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND (0.0040 J)	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.949 U	1.13	0.426	0.604	0.974	0.409 U	0.306 U	0.701
Selenium	0.05	ND (0.00077 J)	ND	ND (0.00037 J)	ND	ND (0.00044 J)	ND (0.00038 J)	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7
		8/31/2016	10/25/2016	1/26/2017	4/12/2017	6/22/2017	10/25/2017	4/10/2018	10/17/2018	
APPENDIX III	Boron	N/R	0.14	0.126	0.14	0.12	0.11	0.12	0.10	0.084
	Calcium	N/R	12	10.9	13	12	13	12	12	11
	Chloride	(250)	5.1	6.2	5.1	4.9	5.1	5.1	5.0	5.8
	Fluoride	4	ND	ND (0.02 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	57	56	57	47	49	49	46	42
	TDS	(500)	150	171	120	150	130	130	140	180
APPENDIX IV	Antimony	0.006	ND	ND (0.0013 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00078 J)	ND	ND	ND	ND
	Barium	2	0.030	0.0317	0.035	0.034	0.038	0.038	0.038	0.038
	Beryllium	0.004	ND	ND (0.0001 J)	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0033	ND (0.0029 J)	0.0033	0.0036	0.0036	0.0028	0.0038	0.0036
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.0024 J)	ND (0.0033 J)	ND	ND	0.0050	0.0050	ND (0.0025 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.000070 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	-0.106 U	0.518 U	0.370	0.316 U	0.229 U	0.281 U	0.492	0.495 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8
		8/31/2016	10/26/2016	1/26/2017	4/12/2017	6/21/2017	10/26/2017	4/11/2018	10/17/2018	
APPENDIX III	Boron	N/R	1.3	1.14	1.5	1.3	1.3	1.5	1.0	1.3
	Calcium	N/R	46	43.3	51	47	51	55	44	52
	Chloride	(250)	5.6	7.1	5.8	5.6	5.8	5.5	5.7	6.0
	Fluoride	4	ND (0.11 J)	0.43	ND (0.13 J)	ND (0.13 J)	ND (0.14 J)	ND (0.13 J)	ND (0.13 J)	ND (0.16 J)
	Sulfate	(250)	72	77	75	69	73	72	69	67
	TDS	(500)	310	283	300	310	300	270	240	120
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00072 J)	ND	ND	ND	ND (0.00063 J)
	Barium	2	0.037	0.0423	0.046	0.041	0.049	0.046	0.048	0.045
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0039 J)	ND (0.0025 J)	ND (0.0035 J)	ND	ND	ND (0.0041 J)	ND (0.0041 J)	ND (0.0037 J)
	Mercury	0.002	ND	ND	ND (0.000081 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	0.034	0.0377	0.040	0.035	0.038	0.041	0.037	0.036
	Radium	5	0.218 U	0.335 U	0.345 U	0.370 U	0.144 U	0.510	0.362	0.385 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9
		8/31/2016	10/25/2016	1/26/2017	4/12/2017	6/22/2017	10/25/2017	4/11/2018	10/17/2018	
APPENDIX III	Boron	N/R	ND	ND (0.0071 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	5.2	4.64	5.5	4.9	5.8	6.1	6.0	5.8
	Chloride	(250)	5.4	6.4	5.3	5.2	5.5	5.3	5.1	5.3
	Fluoride	4	ND	ND (0.20 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	1.1	4.7	1.1	ND (0.90 J)	ND (0.99 J)	ND (0.95 J)	ND (0.90 J)	ND (0.95 J)
	TDS	(500)	74	67	84	88	76	60	24	96
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.042	0.0455	0.048	0.045	0.055	0.049	0.052	0.046
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.011	0.0109	0.011	0.0096	0.011	0.0094	0.010	0.0096
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.279 U	0.393 U	0.0879 U	0.219 U	0.552	0.388 U	0.322	0.327 U
Selenium	0.05	ND (0.00024 J)	ND	ND	ND	ND	ND (0.00029 J)	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10
		9/1/2016	10/25/2016	1/27/2017	4/12/2017	6/22/2017	10/26/2017	4/11/2018	10/17/2018	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND (0.026 J)	ND	ND
	Calcium	N/R	6.6	5.89	7.4	6.7	7.5	7.8	7.4	7.1
	Chloride	(250)	4.0	4.6	3.9	3.7	3.9	3.7	3.8	4.0
	Fluoride	4	ND	ND (0.10 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND (0.38 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	100	65	86	110	82	38	50	120
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.027	0.0296	0.035	0.031	0.035	0.032	0.034	0.031
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0038	ND (0.0042 J)	0.0050	0.0048	0.0047	0.0043	0.0051	0.0051
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND (0.0015 J)	ND (0.0011 J)
	Mercury	0.002	ND	ND	ND (0.000077 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.153 U	0.328 U	-0.0761 U	0.112 U	0.414	0.334 U	0.170 U	0.380 U
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-15	
		9/2/2016	10/26/2016	1/26/2017	4/12/2017	6/21/2017	10/26/2017	4/10/2018	10/17/2018	
APPENDIX III	Boron	N/R	ND	ND (0.0138 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	22	23.7	23	17	18	19	24	21
	Chloride	(250)	2.7	3.3	1.6	1.5	1.6	1.6	1.8	2.1
	Fluoride	4	0.21	ND (0.21 J)	ND (0.097 J)	ND	ND	ND	ND	ND (0.10 J)
	Sulfate	(250)	6.1	22	5.1	4.0	4.6	5.4	6.7	6.8
	TDS	(500)	150	125	86	140	120	96	130	160
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00062 J)	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.074	0.0408	0.038	0.030	0.028	0.029	0.032	0.028
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	0.0087	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	0.030	ND (0.0036 J)	0.011	ND	ND	ND	ND (0.00045 J)	ND
	Lead	0.015	0.0056	ND (0.0003 J)	ND	ND	ND	ND	ND	0.0016
	Lithium	N/R	ND (0.0045 J)	ND (0.0025 J)	ND	ND	ND	ND	ND (0.0029 J)	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.000071 J)	ND
	Molybdenum	N/R	ND (0.0015 J)	ND	ND	ND	ND	ND	ND (0.00097 J)	ND
	Radium	5	2.11	2.45	0.276 U	0.387 U	0.194 U	0.519	0.604	0.460 U
Selenium	0.05	ND (0.00050 J)	ND	ND	ND	ND	ND (0.00040 J)	ND (0.00044 J)	ND	
Thallium	0.002	ND (0.000095 J)	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16
		9/1/2016	10/25/2016	1/26/2017	4/11/2017	6/21/2017	10/26/2017	4/10/2018	10/16/2018	
APPENDIX III	Boron	N/R	ND (0.049 J)	ND (0.0420 J)	0.059	ND (0.045 J)	ND (0.045 J)	0.054	ND (0.048 J)	ND (0.048 J)
	Calcium	N/R	21	29.8	23	28	22	21	25	16
	Chloride	(250)	4.8	5.4	5.2	4.8	5.2	4.7	4.8	4.5
	Fluoride	4	ND	ND (0.08 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	130	200	130	150	130	110	130	84
	TDS	(500)	240	304	170	260	230	170	260	140
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00067 J)	ND	ND	ND	ND
	Barium	2	0.051	0.0637	0.055	0.055	0.054	0.046	0.056	0.039
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND (0.0001 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0017 J)	ND (0.0023 J)	ND (0.0017 J)	ND (0.0019 J)	ND (0.0017 J)	ND (0.0013 J)	ND (0.0019 J)	ND (0.0013 J)
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND (0.0031 J)	ND (0.0016 J)
	Mercury	0.002	ND (0.000088 J)	ND	ND (0.000079 J)	ND	ND (0.00011 J)	ND (0.000094 J)	ND (0.000099 J)	ND (0.000070 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.568	1.57	0.255 U	0.334 U	0.518	0.790	0.394	0.0598 U
Selenium	0.05	0.0014	ND (0.0015 J)	ND (0.00071 J)	ND (0.0011 J)	ND (0.00075 J)	ND (0.0012 J)	0.0013	ND (0.00072 J)	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-17	
		9/1/2016	10/25/2016	1/26/2017	4/11/2017	6/21/2017	10/26/2017	4/10/2018	10/17/2018	
APPENDIX III	Boron	N/R	ND (0.022 J)	ND (0.0219 J)	ND	ND	ND	ND (0.023 J)	ND (0.026 J)	ND
	Calcium	N/R	16	13.5	21	16	15	13	13	10
	Chloride	(250)	4.4	5.1	4.2	3.9	4.1	4.0	4.1	4.0
	Fluoride	4	ND	ND (0.08 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	94	73	110	77	75	61	58	47
	TDS	(500)	220	114	170	160	140	120	110	140
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.00084 J)	ND	ND (0.00087 J)	ND	ND
	Barium	2	0.046	0.0436	0.051	0.043	0.043	0.038	0.046	0.043
	Beryllium	0.004	ND (0.00034 J)	ND (0.0002 J)	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND (0.0001 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND (0.0016 J)	ND (0.0013 J)	ND	ND	ND	ND
	Cobalt	N/R	0.037	0.0144	0.022	0.026	0.027	0.021	0.021	0.014
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND (0.0023 J)	ND (0.0014 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	-0.0810 U	0.675 U	0.180 U	0.547	0.380	1.48	0.390	0.781
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-18	ARGWC-18	ARGWC-18	ARGWC-18	ARGWC-18	ARGWC-18	ARGWC-18	ARGWC-18	
		9/1/2016	10/26/2016	1/27/2017	4/12/2017	6/21/2017	10/25/2017	4/11/2018	10/17/2018	
APPENDIX III	Boron	N/R	2.4	1.97	2.6	2.4	2.2	2.5	2.7	2.2
	Calcium	N/R	42	44.3	49	45	49	49	44	49
	Chloride	(250)	7.8	8.9	7.3	7.0	7.2	7.0	6.9	7.1
	Fluoride	4	ND (0.083 J)	0.32	ND (0.097 J)	ND (0.088 J)	ND (0.096 J)	ND (0.092 J)	ND (0.090 J)	ND (0.11 J)
	Sulfate	(250)	200	200	200	190	200	190	200	190
	TDS	(500)	450	404	460	430	430	380	430	470
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND (0.00066 J)
	Barium	2	0.033	0.0339	0.037	0.032	0.036	0.041	0.040	0.039
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0014 J)	ND (0.0013 J)	ND (0.0021 J)	ND (0.0015 J)	ND (0.0018 J)	ND (0.0013 J)	ND (0.0014 J)	ND (0.0012 J)
	Lead	0.015	ND	ND (0.0002 J)	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0033 J)	ND (0.0037 J)	ND (0.0048 J)	ND (0.0039 J)	ND (0.0037 J)	ND (0.0047 J)	0.0062	ND (0.0049 J)
	Mercury	0.002	ND	ND	ND (0.000074 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.495 U	0.606 U	0.641	-0.0936 U	0.500	0.345 U	0.331 U	0.620
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 4B
Summary of Groundwater Analytical Data - March 2019

Substance	MCL/ (SMCL)	Well ID								
		ARGWA-3	ARGWA-5	ARGWA-12	ARGWA-13	ARGWA-14	ARGWC-7	ARGWC-8	ARGWC-9	
		3/27/2019	3/27/2019	3/27/2019	3/26/2019	3/27/2019	3/28/2019	3/29/2019	3/28/2019	
APPENDIX III	Boron	N/R	ND	ND	ND	0.32	ND (0.032 J)	0.087	1.3	ND (0.044 J)
	Calcium	N/R	5.4	4.5	11	95	42	11	52	5.6
	Chloride	(250)	2.5	4.3	11	4.6	4.0	5.1	5.7	4.8
	Fluoride	4	ND (0.034 J)	ND (0.026 J)	ND (0.031 J)	ND	ND (0.15 J)	ND	ND (0.089 J)	ND
	Sulfate	(250)	ND (0.38 J)	ND (0.55 J)	9.1	430	15	45	66	1.0
	TDS	(500)	69	61	110	750	330	130	290	77
Required by GWMP	Arsenic	0.01	ND (0.00055 J)	ND (0.00055 J)	ND (0.00049 J)	ND (0.00089 J)	0.0013	ND	ND	ND (0.00051 J)
	Barium	2	0.019	0.024	0.063	0.029	0.054	0.038	0.045	0.047
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	(0.015)	ND	ND	ND	ND	ND	ND	ND	ND
	Selenium	0.05	ND	ND	ND	0.015	ND	ND	ND	ND
	Silver	(0.1)	ND	ND	ND	ND	ND	ND	ND	ND
	Chloride	(250)	2.5	4.3	11	4.6	4.0	5.1	5.7	4.8
	Sulfate	(250)	ND (0.38 J)	ND (0.55 J)	9.1	430	15	45	66	1.0

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
10. N/A indicates substance does not have an MCL or SMCL and is not included in Appendix IV.

Table 4B
Summary of Groundwater Analytical Data - March 2019

Substance	MCL/ (SMCL)	Well ID								
		ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17	ARGWC-18				
		3/28/2019	3/27/2019	3/28/2019	3/28/2019	3/27/2019				
APPENDIX III	Boron	N/R	ND	ND	0.080	ND (0.022 J)	2.3			
	Calcium	N/R	7.3	28	41	10	47			
	Chloride	(250)	3.7	1.8	4.6	3.4	6.6			
	Fluoride	4	ND (0.030 J)	ND (0.050 J)	ND	ND	ND (0.050 J)			
	Sulfate	(250)	ND (0.38 J)	7.2	220	59	190			
	TDS	(500)	82	150	370	120	430			
Required by GWMP	Arsenic	0.01	ND (0.0011 J)	ND	ND (0.00057 J)	ND	ND			
	Barium	2	0.031	0.032	0.054	0.045	0.033			
	Cadmium	0.005	ND	ND	ND	ND	ND			
	Lead	(0.015)	ND	ND	ND	ND	ND			
	Selenium	0.05	ND	ND	0.0017	ND	ND			
	Silver	(0.1)	ND	ND	ND	ND	ND			
	Chloride	(250)	3.7	1.8	4.6	3.4	6.6			
	Sulfate	(250)	ND (0.38 J)	7.2	220	59	190			

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
10. N/A indicates substance does not have an MCL or SMCL and is not included in Appendix IV.

Table 5
Summary of Groundwater Elevations

Well	Hydraulic Location	Aug. 29-Sept. 2, 2016	Oct. 24-26, 2016	Jan. 23-27, 2017	Apr. 10-12, 2017	Jun. 19-22, 2017	Oct. 24-26, 2017	Apr. 9-11, 2018	Oct. 16-17, 2018	Mar. 26-29, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection
GWA-3	Upgradient	353.16	352.57	353.03	353.05	352.44	352.04	352.51	352.37	352.80
GWA-5	Upgradient	352.20	352.07	353.25	352.89	352.42	352.20	352.86	352.58	352.89
GWA-12	Upgradient	355.22	354.05	355.58	355.62	354.98	354.67	355.73	355.57	356.41
GWA-13	Upgradient	346.58	345.66	347.04	347.45	346.38	345.71	346.86	347.07	349.30
GWA-14	Upgradient	344.56	344.41	346.07	344.87	346.19	344.49	344.98	345.00	344.81
GWC-7	Downgradient	326.82	325.31	328.32	328.82	328.42	326.82	328.46	328.58	330.44
GWC-8	Downgradient	328.60	327.92	329.54	329.85	329.55	328.99	330.57	330.15	331.33
GWC-9	Downgradient	344.73	343.73	345.53	345.86	345.15	344.24	345.91	345.57	348.01
GWC-10	Downgradient	345.08	344.04	346.10	346.09	345.40	344.46	346.17	345.79	348.05
GWC-15	Downgradient	345.26	345.86	345.66	346.09	345.72	345.36	345.60	346.70	347.85
GWC-16	Downgradient	343.31	341.75	344.19	344.04	343.86	343.17	343.93	344.35	345.54
GWC-17	Downgradient	345.59	344.58	346.44	346.08	345.82	345.36	346.03	346.31	347.33
GWC-18	Downgradient	325.82	324.85	326.67	326.88	326.71	326.11	327.01	327.03	328.17

Notes:

1. Groundwater elevations are recorded in feet above mean sea level (ft MSL).

Table 6
Groundwater Flow Velocity Calculations
March 2019

Equation

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

where: v = ground water velocity
K = hydraulic conductivity
dh/dl = hydraulic gradient
P_e = effective porosity

Values Used in Calculation

	Value		Source
K =	7.7E-04 2.18	cm/sec ft/day	See note 1.
dh/dl =	24.72/2517 0.010	ft/ft unitless	Hydraulic gradient from GWA-5 to GWC-18
P _e =	0.20	unitless	See note 1.

Calculation

$$v = 0.11 \text{ ft/day}$$

$$v = 39.1 \text{ ft/yr}$$

Notes

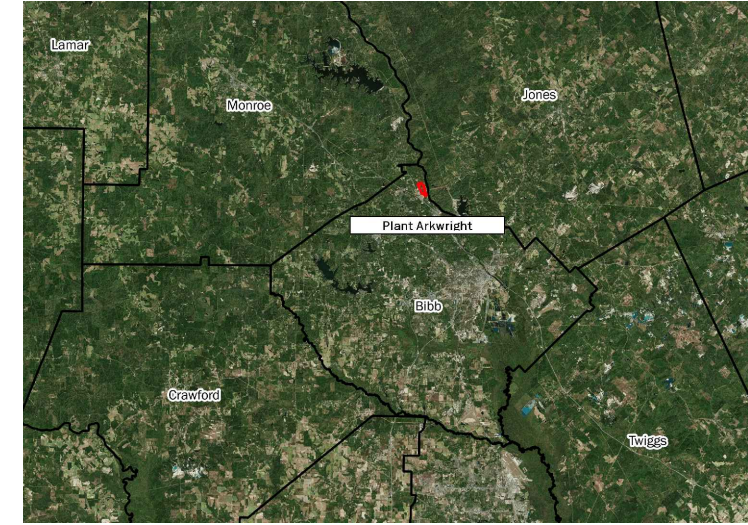
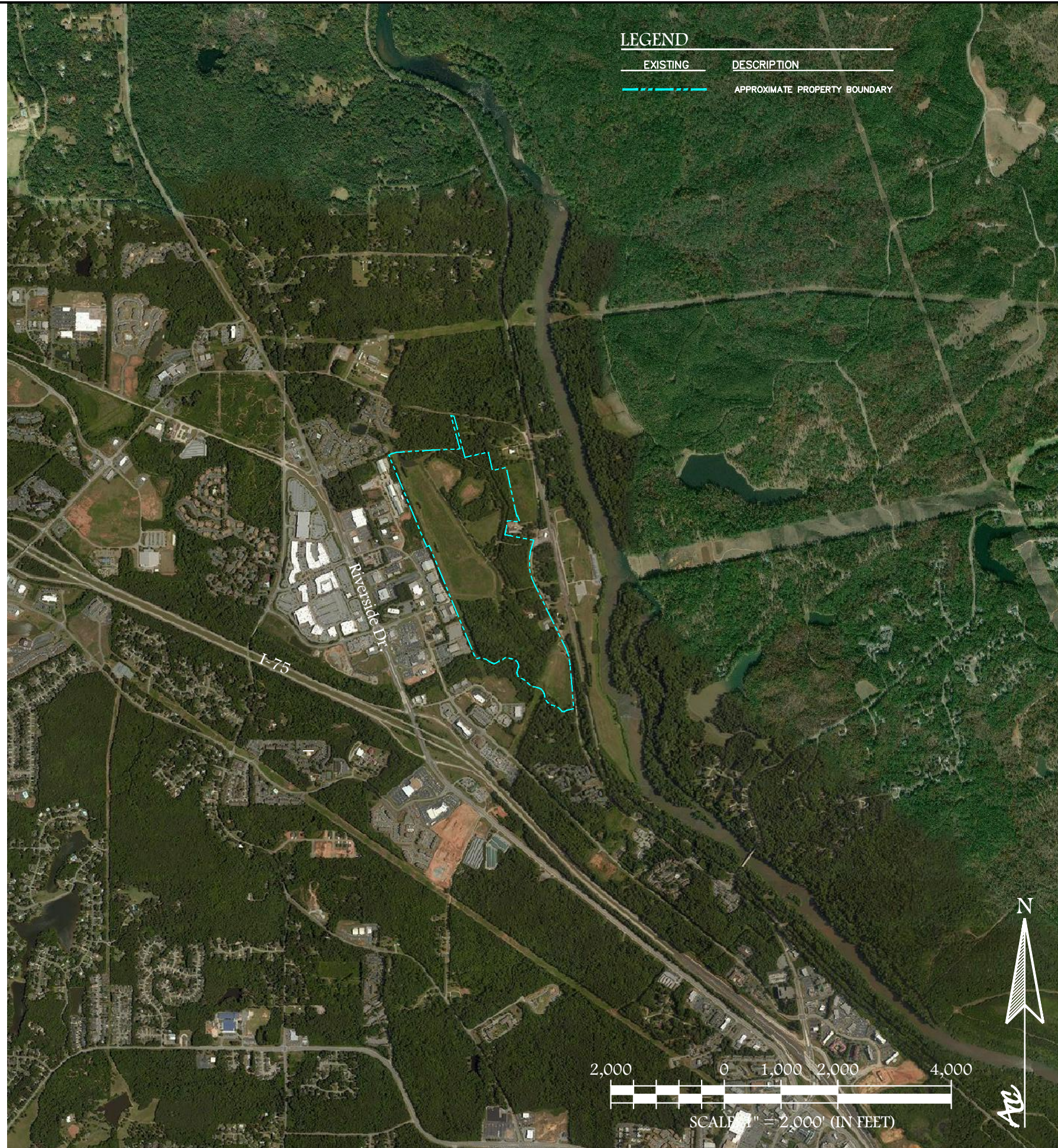
(1) Plant Arkwright Ash Ponds 2 and 3 Ash Monofill Site Acceptability Report (SCS, 2005).

Table 7
Statistical Method Summary
March 2019

Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	GWA-3, GWA-5, GWA-12, GWA-13 and GWA-14
	Downgradient Wells	GWC-7, GWC-8, GWC-9, GWC-10, GWC-15, GWC-16, GWC-17, and GWC-18
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
EPD Permit Metals	Detection Monitoring	Intrawell (Arsenic, Barium, Cadmium, Lead, Selenium, and Silver)
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell or intrawell statistical limits are on constituent specific basis, depending on the appropriateness of the method as determined by the Analysis of Variance

FIGURES

P:\Industrial\054 - Southern Company\110 - Groundwater Consulting Services 2018 - 2021\Plant Arkwright\2 - Semi-Annual GWMRs\1st 2019 Plant Arkwright GWMRs\DWG\Plant Arkwright GWMRs\1st 2019 Plant Arkwright Map.dwg 2019-07-25 MATT MALONE



LOCATION IN THE STATE OF GEORGIA - NOT TO SCALE



ATLANTIC COAST CONSULTING, INC.
 1150 Northmeadow Pkwy.
 Suite 100
 Roswell, GA 30076
 770.594.5998
 www.atlcc.net

PROJECT:
PLANT ARKWRIGHT

5001 ARKWRIGHT ROAD
 MACON, GEORGIA

REVISIONS

NO.	DATE	DESCRIPTION

Drawn by: **RW** Checked by: **MM**

PROJECT NUMBER:
I054-110
 July 2019

SITE LOCATION MAP

FIGURE **1**

P:\Industrial\054 - Southern Company\10 - Groundwater Consulting Services 2018 - 2021\Plant Arkwright\2 - Semi-Annual GWIRs\1st 2019 Plant Arkwright GWMRs\DWG\Plant Arkwright March 2019 Map.dwg 2019-07-25 MATT MALONE



EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
	MONITORING WELL

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 Roswell, GA 30076
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PROJECT:
PLANT ARKWRIGHT

5001 ARKWRIGHT ROAD
 MACON, GEORGIA

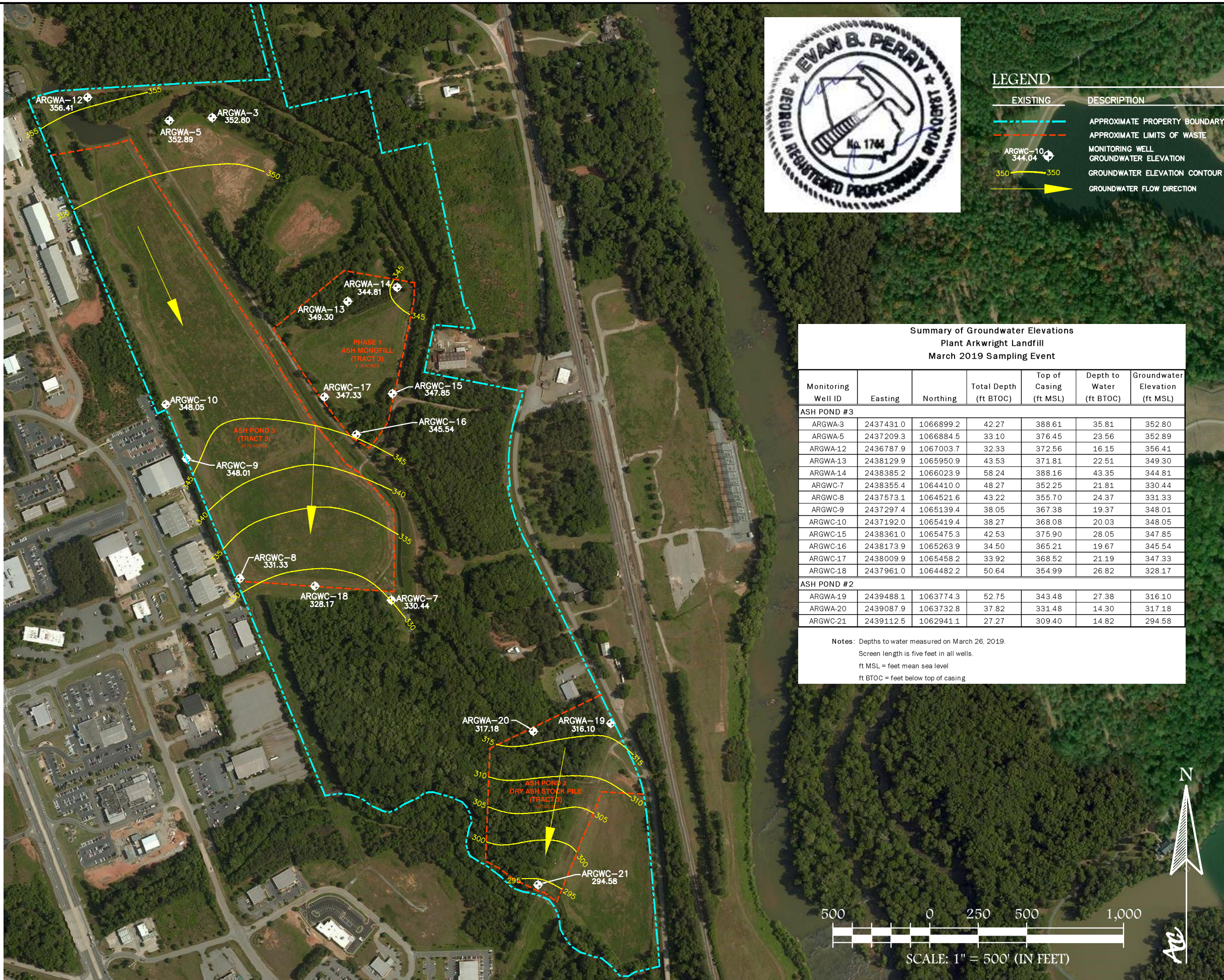
REVISIONS

Drawn by: **RW** Checked by: **MM**

PROJECT NUMBER:
I054-110
 July 2019

WELL LOCATION MAP

FIGURE **2**



LEGEND

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	APPROXIMATE LIMITS OF WASTE
	MONITORING WELL GROUNDWATER ELEVATION
	GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

**Summary of Groundwater Elevations
Plant Arkwright Landfill
March 2019 Sampling Event**

Monitoring Well ID	Eastings	Northing	Total Depth (ft BTOC)	Top of Casing (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
ASH POND #3						
ARGWA-3	2437431.0	1066899.2	42.27	388.61	35.81	352.80
ARGWA-5	2437209.3	1066884.5	33.10	376.45	23.56	352.89
ARGWA-12	2436787.9	1067003.7	32.33	372.56	16.15	356.41
ARGWA-13	2438129.9	1065950.9	43.53	371.81	22.51	349.30
ARGWA-14	2438385.2	1066023.9	58.24	388.16	43.35	344.81
ARGWC-7	2438355.4	1064410.0	48.27	352.25	21.81	330.44
ARGWC-8	2437573.1	1064521.6	43.22	355.70	24.37	331.33
ARGWC-9	2437297.4	1065139.4	38.05	367.38	19.37	348.01
ARGWC-10	2437192.0	1065419.4	38.27	368.08	20.03	348.05
ARGWC-15	2438361.0	1065475.3	42.53	375.90	28.05	347.85
ARGWC-16	2438173.9	1065263.9	34.50	365.21	19.67	345.54
ARGWC-17	2438009.9	1065458.2	33.92	368.52	21.19	347.33
ARGWC-18	2437961.0	1064482.2	50.64	354.99	26.82	328.17
ASH POND #2						
ARGWA-19	2439488.1	1063774.3	52.75	343.48	27.38	316.10
ARGWA-20	2439087.9	1063732.8	37.82	331.48	14.30	317.18
ARGWC-21	2439112.5	1062941.1	27.27	309.40	14.82	294.58

Notes: Depths to water measured on March 26, 2019.
Screen length is five feet in all wells.
ft MSL = feet mean sea level
ft BTOC = feet below top of casing

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PROJECT:
PLANT ARKWRIGHT

5001 ARKWRIGHT ROAD
MACON, GEORGIA

REVISIONS

Drawn by: **RW** Checked by: **MM**

PROJECT NUMBER:
I054-110
July 2019

**MARCH 2019
WATER TABLE
CONTOUR MAP**

FIGURE **3**

APPENDICES

APPENDIX A

Laboratory Analytical and Field Sampling Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-126621-1

TestAmerica Sample Delivery Group: Disposal Unit 3 Phase 2

Client Project/Site: CCR Plant Arkwright

For:

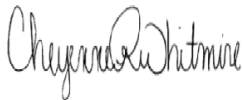
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

9/22/2016 5:40:46 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Job ID: 400-126621-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-126621-1

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWC-7 (400-126621-3), ARGWA-13 (400-126621-4), ARGWC-8 (400-126621-10), DUP-1 (400-126621-11), ARGWC-16 (400-126621-12), ARGWC-18 (400-126621-14), ARGWC-17 (400-126621-15), (400-126621-A-3 MS) and (400-126621-A-3 MSD). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 3005A: Sample contains sediment. ARGWC-15 (400-126621-16)

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-126621-4), ARGWC-8 (400-126621-10) and ARGWC-18 (400-126621-14). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 321454 and analytical batch 321660 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) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 321357 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.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-5

Lab Sample ID: 400-126621-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-12

Lab Sample ID: 400-126621-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.032	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0052		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-7

Lab Sample ID: 400-126621-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	57		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.14		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0033		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-13

Lab Sample ID: 400-126621-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	600		20	14	mg/L	20		300.0	Total/NA
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.10		0.050	0.021	mg/L	5		6020	Total Recoverable
Lithium	0.0053		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.017		0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-13 (Continued)

Lab Sample ID: 400-126621-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	110		1.3	0.63	mg/L	25		6020	Total
Total Dissolved Solids	1000		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: ARGWC-9

Lab Sample ID: 400-126621-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total
Calcium	5.2		0.25	0.13	mg/L	5		6020	Recoverable Total
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Recoverable Total
Selenium	0.00024	J	0.0013	0.00024	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: ARGWA-14

Lab Sample ID: 400-126621-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.12	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	19		1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0017	J	0.0025	0.0010	mg/L	5		6020	Total
Arsenic	0.0032		0.0013	0.00046	mg/L	5		6020	Recoverable Total
Barium	0.076		0.0025	0.00049	mg/L	5		6020	Recoverable Total
Boron	0.040	J	0.050	0.021	mg/L	5		6020	Recoverable Total
Cadmium	0.00039	J	0.0025	0.00034	mg/L	5		6020	Recoverable Total
Calcium	31		0.25	0.13	mg/L	5		6020	Recoverable Total
Lithium	0.0053		0.0050	0.0032	mg/L	5		6020	Recoverable Total
Molybdenum	0.0040	J	0.015	0.00085	mg/L	5		6020	Recoverable Total
Selenium	0.00077	J	0.0013	0.00024	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	330		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

Client Sample ID: ARGWA-3

Lab Sample ID: 400-126621-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total
Calcium	5.4		0.25	0.13	mg/L	5		6020	Recoverable Total
Chromium	0.0030		0.0025	0.0011	mg/L	5		6020	Recoverable Total

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-3 (Continued)

Lab Sample ID: 400-126621-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1

Lab Sample ID: 400-126621-8

No Detections.

Client Sample ID: FERB-1

Lab Sample ID: 400-126621-9

No Detections.

Client Sample ID: ARGWC-8

Lab Sample ID: 400-126621-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.11	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	72		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	46		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0039	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.034		0.015	0.00085	mg/L	5		6020	Total Recoverable
Boron - DL	1.3		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	310		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-126621-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	57		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.14		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0032		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0032	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00027	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-126621-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	130		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.051		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-16 (Continued)

Lab Sample ID: 400-126621-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.049	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0017	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0014		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000088	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-10

Lab Sample ID: 400-126621-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0038		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-18

Lab Sample ID: 400-126621-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.8		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.083	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	200		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	42		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0033	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Boron - DL	2.4		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	450		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-17

Lab Sample ID: 400-126621-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	94		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00034	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	0.022	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-17 (Continued)

Lab Sample ID: 400-126621-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.037		0.0025	0.00040	mg/L	5		6020	Total
Total Dissolved Solids	220		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15

Lab Sample ID: 400-126621-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.21		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	6.1		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00062	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.074		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	22		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0087		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.030		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0056		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0045	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0015	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00050	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.000095	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15(FILTERED)

Lab Sample ID: 400-126621-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium, Dissolved	0.043		0.0025	0.00049	mg/L	5		6020	Dissolved
Calcium, Dissolved	29		0.25	0.13	mg/L	5		6020	Dissolved
Chromium, Dissolved	0.0013	J	0.0025	0.0011	mg/L	5		6020	Dissolved
Cobalt, Dissolved	0.015		0.0025	0.00040	mg/L	5		6020	Dissolved
Lead, Dissolved	0.0010	J	0.0013	0.00035	mg/L	5		6020	Dissolved
Molybdenum, Dissolved	0.0023	J	0.015	0.00085	mg/L	5		6020	Dissolved
Selenium, Dissolved	0.00031	J	0.0013	0.00024	mg/L	5		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126621-1	ARGWA-5	Water	08/30/16 15:48	09/01/16 09:04
400-126621-2	ARGWA-12	Water	08/30/16 16:00	09/01/16 09:04
400-126621-3	ARGWC-7	Water	08/31/16 09:13	09/02/16 09:08
400-126621-4	ARGWA-13	Water	08/31/16 10:00	09/02/16 09:08
400-126621-5	ARGWC-9	Water	08/31/16 12:06	09/02/16 09:08
400-126621-6	ARGWA-14	Water	08/31/16 12:30	09/02/16 09:08
400-126621-7	ARGWA-3	Water	08/31/16 13:20	09/02/16 09:08
400-126621-8	FB-1	Water	08/31/16 14:00	09/02/16 09:08
400-126621-9	FERB-1	Water	08/31/16 14:00	09/02/16 09:08
400-126621-10	ARGWC-8	Water	08/31/16 15:44	09/02/16 09:08
400-126621-11	DUP-1	Water	08/31/16 00:00	09/02/16 09:08
400-126621-12	ARGWC-16	Water	09/01/16 09:03	09/03/16 09:32
400-126621-13	ARGWC-10	Water	09/01/16 09:15	09/03/16 09:32
400-126621-14	ARGWC-18	Water	09/01/16 12:55	09/03/16 09:32
400-126621-15	ARGWC-17	Water	09/01/16 14:46	09/03/16 09:32
400-126621-16	ARGWC-15	Water	09/02/16 11:20	09/03/16 09:32
400-126621-17	ARGWC-15(FILTERED)	Water	09/02/16 11:20	09/03/16 09:32

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-5

Date Collected: 08/30/16 15:48

Date Received: 09/01/16 09:04

Lab Sample ID: 400-126621-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.89	mg/L			09/14/16 11:35	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 11:35	1
Sulfate	<0.70		1.0	0.70	mg/L			09/14/16 11:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 17:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 17:06	5
Barium	0.026		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 17:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:06	5
Boron	<0.021		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 17:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:06	5
Calcium	5.1		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 17:06	5
Chromium	0.0012 J		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 17:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 17:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 17:06	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 17:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 17:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 17:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 17:06	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		09/03/16 13:38	09/06/16 10:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		5.0	3.4	mg/L			09/03/16 13:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-12

Date Collected: 08/30/16 16:00

Date Received: 09/01/16 09:04

Lab Sample ID: 400-126621-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.89	mg/L			09/14/16 11:58	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 11:58	1
Sulfate	9.5		1.0	0.70	mg/L			09/14/16 11:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 17:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 17:10	5
Barium	0.062		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 17:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:10	5
Boron	0.032	J	0.050	0.021	mg/L		09/04/16 11:49	09/06/16 17:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:10	5
Calcium	11		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 17:10	5
Chromium	0.0012	J	0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 17:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 17:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 17:10	5
Lithium	0.0052		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 17:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 17:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 17:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 17:10	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		09/03/16 13:38	09/06/16 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			09/03/16 13:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-7

Date Collected: 08/31/16 09:13

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			09/14/16 12:21	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 12:21	1
Sulfate	57		5.0	3.5	mg/L			09/16/16 15:15	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 17:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 17:15	5
Barium	0.030		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 17:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:15	5
Boron	0.14		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 17:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:15	5
Calcium	12		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 17:15	5
Chromium	0.0033		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 17:15	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 17:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 17:15	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 17:15	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 17:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 17:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 17:15	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		09/04/16 13:04	09/08/16 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			09/07/16 13:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-126621-4

Date Collected: 08/31/16 10:00

Matrix: Water

Date Received: 09/02/16 09:08

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.89	mg/L			09/14/16 19:46	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 19:46	1
Sulfate	600		20	14	mg/L			09/16/16 16:23	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 17:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 17:51	5
Barium	0.041		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 17:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:51	5
Boron	0.10		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 17:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 17:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 17:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 17:51	5
Lithium	0.0053		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 17:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 17:51	5
Selenium	0.017		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 17:51	5
Thallium	<0.00085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 17:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110		1.3	0.63	mg/L		09/04/16 11:49	09/07/16 12:29	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		09/04/16 13:04	09/08/16 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		5.0	3.4	mg/L			09/07/16 11:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-9

Date Collected: 08/31/16 12:06

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.89	mg/L			09/14/16 20:09	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 20:09	1
Sulfate	1.1		1.0	0.70	mg/L			09/14/16 20:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 17:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 17:55	5
Barium	0.042		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 17:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:55	5
Boron	<0.021		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 17:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 17:55	5
Calcium	5.2		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 17:55	5
Chromium	0.011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 17:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 17:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 17:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 17:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 17:55	5
Selenium	0.00024 J		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 17:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 17:55	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		09/04/16 13:04	09/08/16 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			09/07/16 11:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-14

Date Collected: 08/31/16 12:30

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.89	mg/L			09/14/16 20:32	1
Fluoride	0.12	J	0.20	0.082	mg/L			09/14/16 20:32	1
Sulfate	19		1.0	0.70	mg/L			09/14/16 20:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0017	J	0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 18:00	5
Arsenic	0.0032		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 18:00	5
Barium	0.076		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 18:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:00	5
Boron	0.040	J	0.050	0.021	mg/L		09/04/16 11:49	09/06/16 18:00	5
Cadmium	0.00039	J	0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:00	5
Calcium	31		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 18:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 18:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 18:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 18:00	5
Lithium	0.0053		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 18:00	5
Molybdenum	0.0040	J	0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 18:00	5
Selenium	0.00077	J	0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 18:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 18:00	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		09/04/16 13:04	09/08/16 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	330		5.0	3.4	mg/L			09/07/16 11:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-3

Date Collected: 08/31/16 13:20

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			09/14/16 20:55	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 20:55	1
Sulfate	<0.70		1.0	0.70	mg/L			09/14/16 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 18:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 18:04	5
Barium	0.018		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 18:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:04	5
Boron	<0.021		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 18:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:04	5
Calcium	5.4		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 18:04	5
Chromium	0.0030		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 18:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 18:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 18:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 18:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 18:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 18:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 18:04	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		09/04/16 13:04	09/08/16 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	80		5.0	3.4	mg/L			09/07/16 13:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: FB-1
Date Collected: 08/31/16 14:00
Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-8
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/14/16 21:17	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 21:17	1
Sulfate	<0.70		1.0	0.70	mg/L			09/14/16 21:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 18:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 18:09	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 18:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:09	5
Boron	<0.021		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 18:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:09	5
Calcium	<0.13		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 18:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 18:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 18:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 18:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 18:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 18:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 18:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 18:09	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		09/04/16 13:04	09/08/16 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/07/16 13:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: FERB-1
Date Collected: 08/31/16 14:00
Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-9
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/14/16 21:40	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 21:40	1
Sulfate	<0.70		1.0	0.70	mg/L			09/14/16 21:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 18:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 18:13	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 18:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:13	5
Boron	<0.021		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 18:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:13	5
Calcium	<0.13		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 18:13	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 18:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 18:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 18:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 18:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 18:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 18:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 18:13	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		09/04/16 13:04	09/08/16 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/07/16 13:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-8

Lab Sample ID: 400-126621-10

Date Collected: 08/31/16 15:44

Matrix: Water

Date Received: 09/02/16 09:08

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		1.0	0.89	mg/L			09/14/16 22:26	1
Fluoride	0.11	J	0.20	0.082	mg/L			09/14/16 22:26	1
Sulfate	72		5.0	3.5	mg/L			09/16/16 16:46	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 18:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 18:18	5
Barium	0.037		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 18:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:18	5
Calcium	46		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 18:18	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 18:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 18:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 18:18	5
Lithium	0.0039	J	0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 18:18	5
Molybdenum	0.034		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 18:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 18:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 18:18	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3		0.25	0.11	mg/L		09/04/16 11:49	09/07/16 12:34	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		09/04/16 13:04	09/08/16 13:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	310		5.0	3.4	mg/L			09/07/16 13:28	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: DUP-1

Date Collected: 08/31/16 00:00

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			09/14/16 22:49	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 22:49	1
Sulfate	57		5.0	3.5	mg/L			09/16/16 17:54	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 18:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 18:36	5
Barium	0.031		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 18:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:36	5
Boron	0.14		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 18:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 18:36	5
Calcium	12		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 18:36	5
Chromium	0.0032		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 18:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 18:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 18:36	5
Lithium	0.0032	J	0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 18:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 18:36	5
Selenium	0.00027	J	0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 18:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 18:36	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		09/04/16 13:04	09/08/16 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			09/07/16 11:48	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-16

Lab Sample ID: 400-126621-12

Date Collected: 09/01/16 09:03

Matrix: Water

Date Received: 09/03/16 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		1.0	0.89	mg/L			09/14/16 23:11	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 23:11	1
Sulfate	130		5.0	3.5	mg/L			09/16/16 18:17	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		09/07/16 10:09	09/07/16 20:47	5
Barium	0.051		0.0025	0.00049	mg/L		09/07/16 10:09	09/07/16 20:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:09	09/07/16 20:47	5
Boron	0.049	J	0.050	0.021	mg/L		09/07/16 10:09	09/07/16 20:47	5
Calcium	21		0.25	0.13	mg/L		09/07/16 10:09	09/07/16 20:47	5
Chromium	0.0017	J	0.0025	0.0011	mg/L		09/07/16 10:09	09/07/16 20:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/07/16 10:09	09/07/16 20:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/07/16 10:09	09/07/16 20:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/07/16 10:09	09/07/16 20:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/07/16 10:09	09/07/16 20:47	5
Selenium	0.0014		0.0013	0.00024	mg/L		09/07/16 10:09	09/07/16 20:47	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 10:09	09/08/16 15:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:09	09/08/16 15:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/07/16 10:09	09/08/16 15:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000088	J	0.00020	0.000070	mg/L		09/04/16 13:04	09/08/16 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			09/07/16 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-126621-13

Date Collected: 09/01/16 09:15

Matrix: Water

Date Received: 09/03/16 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			09/15/16 00:20	1
Fluoride	<0.082		0.20	0.082	mg/L			09/15/16 00:20	1
Sulfate	<0.70		1.0	0.70	mg/L			09/15/16 00:20	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		09/07/16 10:09	09/07/16 20:51	5
Barium	0.027		0.0025	0.00049	mg/L		09/07/16 10:09	09/07/16 20:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:09	09/07/16 20:51	5
Boron	<0.021		0.050	0.021	mg/L		09/07/16 10:09	09/07/16 20:51	5
Calcium	6.6		0.25	0.13	mg/L		09/07/16 10:09	09/07/16 20:51	5
Chromium	0.0038		0.0025	0.0011	mg/L		09/07/16 10:09	09/07/16 20:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/07/16 10:09	09/07/16 20:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/07/16 10:09	09/07/16 20:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/07/16 10:09	09/07/16 20:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/07/16 10:09	09/07/16 20:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/07/16 10:09	09/07/16 20:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 10:09	09/08/16 15:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:09	09/08/16 15:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/07/16 10:09	09/08/16 15:50	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		09/04/16 13:04	09/08/16 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			09/07/16 13:21	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-18

Lab Sample ID: 400-126621-14

Date Collected: 09/01/16 12:55

Matrix: Water

Date Received: 09/03/16 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.8		1.0	0.89	mg/L			09/15/16 00:43	1
Fluoride	0.083	J	0.20	0.082	mg/L			09/15/16 00:43	1
Sulfate	200		10	7.0	mg/L			09/16/16 18:40	10

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		09/07/16 10:09	09/07/16 20:56	5
Barium	0.033		0.0025	0.00049	mg/L		09/07/16 10:09	09/07/16 20:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:09	09/07/16 20:56	5
Calcium	42		0.25	0.13	mg/L		09/07/16 10:09	09/07/16 20:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/07/16 10:09	09/07/16 20:56	5
Cobalt	0.0014	J	0.0025	0.00040	mg/L		09/07/16 10:09	09/07/16 20:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/07/16 10:09	09/07/16 20:56	5
Lithium	0.0033	J	0.0050	0.0032	mg/L		09/07/16 10:09	09/07/16 20:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/07/16 10:09	09/07/16 20:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/07/16 10:09	09/07/16 20:56	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.4		0.25	0.11	mg/L		09/07/16 10:09	09/13/16 17:43	25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 10:09	09/08/16 15:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:09	09/08/16 15:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/07/16 10:09	09/08/16 15:55	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		09/04/16 13:04	09/08/16 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		5.0	3.4	mg/L			09/08/16 16:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-17

Lab Sample ID: 400-126621-15

Date Collected: 09/01/16 14:46

Matrix: Water

Date Received: 09/03/16 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		1.0	0.89	mg/L			09/15/16 01:06	1
Fluoride	<0.082		0.20	0.082	mg/L			09/15/16 01:06	1
Sulfate	94		5.0	3.5	mg/L			09/16/16 19:03	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		09/07/16 10:11	09/07/16 20:11	5
Barium	0.046		0.0025	0.00049	mg/L		09/07/16 10:11	09/07/16 20:11	5
Beryllium	0.00034	J	0.0025	0.00034	mg/L		09/07/16 10:11	09/07/16 20:11	5
Boron	0.022	J	0.050	0.021	mg/L		09/07/16 10:11	09/07/16 20:11	5
Calcium	16		0.25	0.13	mg/L		09/07/16 10:11	09/07/16 20:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/07/16 10:11	09/07/16 20:11	5
Cobalt	0.037		0.0025	0.00040	mg/L		09/07/16 10:11	09/07/16 20:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/07/16 10:11	09/07/16 20:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/07/16 10:11	09/07/16 20:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/07/16 10:11	09/07/16 20:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/07/16 10:11	09/07/16 20:11	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 10:11	09/08/16 15:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:11	09/08/16 15:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/07/16 10:11	09/08/16 15:12	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		09/04/16 13:04	09/08/16 13:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		5.0	3.4	mg/L			09/08/16 16:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-15

Lab Sample ID: 400-126621-16

Date Collected: 09/02/16 11:20

Matrix: Water

Date Received: 09/03/16 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.89	mg/L			09/15/16 01:28	1
Fluoride	0.21		0.20	0.082	mg/L			09/15/16 01:28	1
Sulfate	6.1		1.0	0.70	mg/L			09/15/16 01:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00062	J	0.0013	0.00046	mg/L		09/07/16 10:11	09/07/16 20:15	5
Barium	0.074		0.0025	0.00049	mg/L		09/07/16 10:11	09/07/16 20:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:11	09/07/16 20:15	5
Boron	<0.021		0.050	0.021	mg/L		09/07/16 10:11	09/07/16 20:15	5
Calcium	22		0.25	0.13	mg/L		09/07/16 10:11	09/07/16 20:15	5
Chromium	0.0087		0.0025	0.0011	mg/L		09/07/16 10:11	09/07/16 20:15	5
Cobalt	0.030		0.0025	0.00040	mg/L		09/07/16 10:11	09/07/16 20:15	5
Lead	0.0056		0.0013	0.00035	mg/L		09/07/16 10:11	09/07/16 20:15	5
Lithium	0.0045	J	0.0050	0.0032	mg/L		09/07/16 10:11	09/07/16 20:15	5
Molybdenum	0.0015	J	0.015	0.00085	mg/L		09/07/16 10:11	09/07/16 20:15	5
Selenium	0.00050	J	0.0013	0.00024	mg/L		09/07/16 10:11	09/07/16 20:15	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 10:11	09/08/16 15:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:11	09/08/16 15:16	5
Thallium	0.000095	J	0.00050	0.000085	mg/L		09/07/16 10:11	09/08/16 15:16	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		09/04/16 13:04	09/08/16 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			09/08/16 17:26	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
 SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-15(FILTERED)

Lab Sample ID: 400-126621-17

Date Collected: 09/02/16 11:20

Matrix: Water

Date Received: 09/03/16 09:32

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		09/07/16 10:11	09/07/16 20:24	5
Barium, Dissolved	0.043		0.0025	0.00049	mg/L		09/07/16 10:11	09/07/16 20:24	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:11	09/07/16 20:24	5
Boron, Dissolved	<0.021		0.050	0.021	mg/L		09/07/16 10:11	09/07/16 20:24	5
Calcium, Dissolved	29		0.25	0.13	mg/L		09/07/16 10:11	09/07/16 20:24	5
Chromium, Dissolved	0.0013	J	0.0025	0.0011	mg/L		09/07/16 10:11	09/07/16 20:24	5
Cobalt, Dissolved	0.015		0.0025	0.00040	mg/L		09/07/16 10:11	09/07/16 20:24	5
Lead, Dissolved	0.0010	J	0.0013	0.00035	mg/L		09/07/16 10:11	09/07/16 20:24	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		09/07/16 10:11	09/07/16 20:24	5
Molybdenum, Dissolved	0.0023	J	0.015	0.00085	mg/L		09/07/16 10:11	09/07/16 20:24	5
Selenium, Dissolved	0.00031	J	0.0013	0.00024	mg/L		09/07/16 10:11	09/07/16 20:24	5

Method: 6020 - Metals (ICP/MS) - Dissolved - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		09/07/16 10:11	09/08/16 15:21	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		09/07/16 10:11	09/08/16 15:21	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		09/07/16 10:11	09/08/16 15:21	5

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		09/04/16 13:04	09/08/16 13:31	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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.
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.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
L	A negative instrument reading had an absolute value greater than the reporting 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-5

Date Collected: 08/30/16 15:48

Date Received: 09/01/16 09:04

Lab Sample ID: 400-126621-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322490	09/14/16 11:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 17:06	RJB	TAL PEN
Total/NA	Prep	7470A			321179	09/03/16 13:38	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321424	09/06/16 10:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321321	09/03/16 13:40	TET	TAL PEN

Client Sample ID: ARGWA-12

Date Collected: 08/30/16 16:00

Date Received: 09/01/16 09:04

Lab Sample ID: 400-126621-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322490	09/14/16 11:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 17:10	RJB	TAL PEN
Total/NA	Prep	7470A			321179	09/03/16 13:38	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321424	09/06/16 10:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321321	09/03/16 13:40	TET	TAL PEN

Client Sample ID: ARGWC-7

Date Collected: 08/31/16 09:13

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322490	09/14/16 12:21	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	322932	09/16/16 15:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 17:15	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321596	09/07/16 13:28	JLB	TAL PEN

Client Sample ID: ARGWA-13

Date Collected: 08/31/16 10:00

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 19:46	TAJ	TAL PEN
Total/NA	Analysis	300.0		20	322932	09/16/16 16:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 17:51	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		321354	09/04/16 11:49	DN1	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-126621-4

Date Collected: 08/31/16 10:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020	DL	25	321660	09/07/16 12:29	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321595	09/07/16 11:48	JLB	TAL PEN

Client Sample ID: ARGWC-9

Lab Sample ID: 400-126621-5

Date Collected: 08/31/16 12:06

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 20:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 17:55	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321595	09/07/16 11:48	JLB	TAL PEN

Client Sample ID: ARGWA-14

Lab Sample ID: 400-126621-6

Date Collected: 08/31/16 12:30

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 20:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 18:00	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321595	09/07/16 11:48	JLB	TAL PEN

Client Sample ID: ARGWA-3

Lab Sample ID: 400-126621-7

Date Collected: 08/31/16 13:20

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 20:55	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 18:04	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321596	09/07/16 13:28	JLB	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: FB-1

Lab Sample ID: 400-126621-8

Date Collected: 08/31/16 14:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 21:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 18:09	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321596	09/07/16 13:28	JLB	TAL PEN

Client Sample ID: FERB-1

Lab Sample ID: 400-126621-9

Date Collected: 08/31/16 14:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 21:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 18:13	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321596	09/07/16 13:28	JLB	TAL PEN

Client Sample ID: ARGWC-8

Lab Sample ID: 400-126621-10

Date Collected: 08/31/16 15:44

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 22:26	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	322932	09/16/16 16:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	321510	09/06/16 18:18	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		321354	09/04/16 11:49	DN1	TAL PEN
Total Recoverable	Analysis	6020	DL	25	321660	09/07/16 12:34	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321596	09/07/16 13:28	JLB	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-126621-11

Date Collected: 08/31/16 00:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 22:49	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	322932	09/16/16 17:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321354	09/04/16 11:49	DN1	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: DUP-1

Lab Sample ID: 400-126621-11

Date Collected: 08/31/16 00:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	321510	09/06/16 18:36	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321595	09/07/16 11:48	JLB	TAL PEN

Client Sample ID: ARGWC-16

Lab Sample ID: 400-126621-12

Date Collected: 09/01/16 09:03

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/14/16 23:11	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	322932	09/16/16 18:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321514	09/07/16 10:09	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	321660	09/07/16 20:47	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		321514	09/07/16 10:09	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	321877	09/08/16 15:46	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321650	09/07/16 13:21	JLB	TAL PEN

Client Sample ID: ARGWC-10

Lab Sample ID: 400-126621-13

Date Collected: 09/01/16 09:15

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/15/16 00:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321514	09/07/16 10:09	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	321660	09/07/16 20:51	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		321514	09/07/16 10:09	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	321877	09/08/16 15:50	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321650	09/07/16 13:21	JLB	TAL PEN

Client Sample ID: ARGWC-18

Lab Sample ID: 400-126621-14

Date Collected: 09/01/16 12:55

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/15/16 00:43	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	322932	09/16/16 18:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321514	09/07/16 10:09	KWN	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-18

Lab Sample ID: 400-126621-14

Date Collected: 09/01/16 12:55

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	321660	09/07/16 20:56	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		321514	09/07/16 10:09	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	321877	09/08/16 15:55	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		321514	09/07/16 10:09	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	25	322475	09/13/16 17:43	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321855	09/08/16 16:23	JLB	TAL PEN

Client Sample ID: ARGWC-17

Lab Sample ID: 400-126621-15

Date Collected: 09/01/16 14:46

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/15/16 01:06	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	322932	09/16/16 19:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321454	09/07/16 10:11	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	321660	09/07/16 20:11	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		321454	09/07/16 10:11	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	321877	09/08/16 15:12	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321855	09/08/16 16:23	JLB	TAL PEN

Client Sample ID: ARGWC-15

Lab Sample ID: 400-126621-16

Date Collected: 09/02/16 11:20

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	322758	09/15/16 01:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			321454	09/07/16 10:11	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	321660	09/07/16 20:15	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		321454	09/07/16 10:11	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	321877	09/08/16 15:16	RJB	TAL PEN
Total/NA	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Total/NA	Analysis	7470A		1	321841	09/08/16 13:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	321859	09/08/16 17:26	JLB	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-15(FILTERED)

Lab Sample ID: 400-126621-17

Date Collected: 09/02/16 11:20

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			321454	09/07/16 10:11	KWN	TAL PEN
Dissolved	Analysis	6020		5	321660	09/07/16 20:24	RJB	TAL PEN
Dissolved	Prep	3005A	RA		321454	09/07/16 10:11	KWN	TAL PEN
Dissolved	Analysis	6020	RA	5	321877	09/08/16 15:21	RJB	TAL PEN
Dissolved	Prep	7470A			321357	09/04/16 13:04	DN1	TAL PEN
Dissolved	Analysis	7470A		1	321841	09/08/16 13:31	JAP	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

HPLC/IC

Analysis Batch: 322490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total/NA	Water	300.0	
400-126621-2	ARGWA-12	Total/NA	Water	300.0	
400-126621-3	ARGWC-7	Total/NA	Water	300.0	
MB 400-322490/45	Method Blank	Total/NA	Water	300.0	
LCS 400-322490/46	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-322490/47	Lab Control Sample Dup	Total/NA	Water	300.0	
400-126637-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-126677-A-3 MS	Matrix Spike	Total/NA	Water	300.0	

Analysis Batch: 322758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-4	ARGWA-13	Total/NA	Water	300.0	
400-126621-5	ARGWC-9	Total/NA	Water	300.0	
400-126621-6	ARGWA-14	Total/NA	Water	300.0	
400-126621-7	ARGWA-3	Total/NA	Water	300.0	
400-126621-8	FB-1	Total/NA	Water	300.0	
400-126621-9	FERB-1	Total/NA	Water	300.0	
400-126621-10	ARGWC-8	Total/NA	Water	300.0	
400-126621-11	DUP-1	Total/NA	Water	300.0	
400-126621-12	ARGWC-16	Total/NA	Water	300.0	
400-126621-13	ARGWC-10	Total/NA	Water	300.0	
400-126621-14	ARGWC-18	Total/NA	Water	300.0	
400-126621-15	ARGWC-17	Total/NA	Water	300.0	
400-126621-16	ARGWC-15	Total/NA	Water	300.0	
MB 400-322758/4	Method Blank	Total/NA	Water	300.0	
LCS 400-322758/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-322758/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-126621-9 MS	FERB-1	Total/NA	Water	300.0	
400-126677-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 322932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-3	ARGWC-7	Total/NA	Water	300.0	
400-126621-4	ARGWA-13	Total/NA	Water	300.0	
400-126621-10	ARGWC-8	Total/NA	Water	300.0	
400-126621-11	DUP-1	Total/NA	Water	300.0	
400-126621-12	ARGWC-16	Total/NA	Water	300.0	
400-126621-14	ARGWC-18	Total/NA	Water	300.0	
400-126621-15	ARGWC-17	Total/NA	Water	300.0	
MB 400-322932/4	Method Blank	Total/NA	Water	300.0	
LCS 400-322932/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-322932/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-126621-3 MS	ARGWC-7	Total/NA	Water	300.0	
400-126621-3 MSD	ARGWC-7	Total/NA	Water	300.0	

Metals

Prep Batch: 321179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Metals (Continued)

Prep Batch: 321179 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-2	ARGWA-12	Total/NA	Water	7470A	
MB 400-321179/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-321179/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-126631-H-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-126631-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 321354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total Recoverable	Water	3005A	
400-126621-2	ARGWA-12	Total Recoverable	Water	3005A	
400-126621-3	ARGWC-7	Total Recoverable	Water	3005A	
400-126621-4	ARGWA-13	Total Recoverable	Water	3005A	
400-126621-4 - DL	ARGWA-13	Total Recoverable	Water	3005A	
400-126621-5	ARGWC-9	Total Recoverable	Water	3005A	
400-126621-6	ARGWA-14	Total Recoverable	Water	3005A	
400-126621-7	ARGWA-3	Total Recoverable	Water	3005A	
400-126621-8	FB-1	Total Recoverable	Water	3005A	
400-126621-9	FERB-1	Total Recoverable	Water	3005A	
400-126621-10	ARGWC-8	Total Recoverable	Water	3005A	
400-126621-10 - DL	ARGWC-8	Total Recoverable	Water	3005A	
400-126621-11	DUP-1	Total Recoverable	Water	3005A	
MB 400-321354/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-321354/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126621-3 MS	ARGWC-7	Total Recoverable	Water	3005A	
400-126621-3 MSD	ARGWC-7	Total Recoverable	Water	3005A	

Prep Batch: 321357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-3	ARGWC-7	Total/NA	Water	7470A	
400-126621-4	ARGWA-13	Total/NA	Water	7470A	
400-126621-5	ARGWC-9	Total/NA	Water	7470A	
400-126621-6	ARGWA-14	Total/NA	Water	7470A	
400-126621-7	ARGWA-3	Total/NA	Water	7470A	
400-126621-8	FB-1	Total/NA	Water	7470A	
400-126621-9	FERB-1	Total/NA	Water	7470A	
400-126621-10	ARGWC-8	Total/NA	Water	7470A	
400-126621-11	DUP-1	Total/NA	Water	7470A	
400-126621-12	ARGWC-16	Total/NA	Water	7470A	
400-126621-13	ARGWC-10	Total/NA	Water	7470A	
400-126621-14	ARGWC-18	Total/NA	Water	7470A	
400-126621-15	ARGWC-17	Total/NA	Water	7470A	
400-126621-16	ARGWC-15	Total/NA	Water	7470A	
400-126621-17	ARGWC-15(FILTERED)	Dissolved	Water	7470A	
MB 400-321357/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-321357/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-126671-A-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-126671-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 321424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total/NA	Water	7470A	321179

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Metals (Continued)

Analysis Batch: 321424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-2	ARGWA-12	Total/NA	Water	7470A	321179
MB 400-321179/14-A	Method Blank	Total/NA	Water	7470A	321179
LCS 400-321179/15-A	Lab Control Sample	Total/NA	Water	7470A	321179
400-126631-H-1-B MS	Matrix Spike	Total/NA	Water	7470A	321179
400-126631-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	321179

Prep Batch: 321454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-15 - RA	ARGWC-17	Total Recoverable	Water	3005A	
400-126621-15	ARGWC-17	Total Recoverable	Water	3005A	
400-126621-16 - RA	ARGWC-15	Total Recoverable	Water	3005A	
400-126621-16	ARGWC-15	Total Recoverable	Water	3005A	
400-126621-17	ARGWC-15(FILTERED)	Dissolved	Water	3005A	
400-126621-17 - RA	ARGWC-15(FILTERED)	Dissolved	Water	3005A	
MB 400-321454/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-321454/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126512-C-3-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-126512-C-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 321510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total Recoverable	Water	6020	321354
400-126621-2	ARGWA-12	Total Recoverable	Water	6020	321354
400-126621-3	ARGWC-7	Total Recoverable	Water	6020	321354
400-126621-4	ARGWA-13	Total Recoverable	Water	6020	321354
400-126621-5	ARGWC-9	Total Recoverable	Water	6020	321354
400-126621-6	ARGWA-14	Total Recoverable	Water	6020	321354
400-126621-7	ARGWA-3	Total Recoverable	Water	6020	321354
400-126621-8	FB-1	Total Recoverable	Water	6020	321354
400-126621-9	FERB-1	Total Recoverable	Water	6020	321354
400-126621-10	ARGWC-8	Total Recoverable	Water	6020	321354
400-126621-11	DUP-1	Total Recoverable	Water	6020	321354
MB 400-321354/1-A ^5	Method Blank	Total Recoverable	Water	6020	321354
LCS 400-321354/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	321354
400-126621-3 MS	ARGWC-7	Total Recoverable	Water	6020	321354
400-126621-3 MSD	ARGWC-7	Total Recoverable	Water	6020	321354

Prep Batch: 321514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-12	ARGWC-16	Total Recoverable	Water	3005A	
400-126621-12 - RA	ARGWC-16	Total Recoverable	Water	3005A	
400-126621-13	ARGWC-10	Total Recoverable	Water	3005A	
400-126621-13 - RA	ARGWC-10	Total Recoverable	Water	3005A	
400-126621-14 - RA	ARGWC-18	Total Recoverable	Water	3005A	
400-126621-14 - DL	ARGWC-18	Total Recoverable	Water	3005A	
400-126621-14	ARGWC-18	Total Recoverable	Water	3005A	
MB 400-321514/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-321514/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126524-A-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-126524-A-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Metals (Continued)

Analysis Batch: 321660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-4 - DL	ARGWA-13	Total Recoverable	Water	6020	321354
400-126621-10 - DL	ARGWC-8	Total Recoverable	Water	6020	321354
400-126621-12	ARGWC-16	Total Recoverable	Water	6020	321514
400-126621-13	ARGWC-10	Total Recoverable	Water	6020	321514
400-126621-14	ARGWC-18	Total Recoverable	Water	6020	321514
400-126621-15	ARGWC-17	Total Recoverable	Water	6020	321454
400-126621-16	ARGWC-15	Total Recoverable	Water	6020	321454
400-126621-17	ARGWC-15(FILTERED)	Dissolved	Water	6020	321454
MB 400-321454/1-A ^5	Method Blank	Total Recoverable	Water	6020	321454
MB 400-321514/1-A ^5	Method Blank	Total Recoverable	Water	6020	321514
LCS 400-321454/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	321454
LCS 400-321514/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	321514
400-126512-C-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	321454
400-126512-C-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	321454
400-126524-A-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	321514
400-126524-A-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	321514

Analysis Batch: 321841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-3	ARGWC-7	Total/NA	Water	7470A	321357
400-126621-4	ARGWA-13	Total/NA	Water	7470A	321357
400-126621-5	ARGWC-9	Total/NA	Water	7470A	321357
400-126621-6	ARGWA-14	Total/NA	Water	7470A	321357
400-126621-7	ARGWA-3	Total/NA	Water	7470A	321357
400-126621-8	FB-1	Total/NA	Water	7470A	321357
400-126621-9	FERB-1	Total/NA	Water	7470A	321357
400-126621-10	ARGWC-8	Total/NA	Water	7470A	321357
400-126621-11	DUP-1	Total/NA	Water	7470A	321357
400-126621-12	ARGWC-16	Total/NA	Water	7470A	321357
400-126621-13	ARGWC-10	Total/NA	Water	7470A	321357
400-126621-14	ARGWC-18	Total/NA	Water	7470A	321357
400-126621-15	ARGWC-17	Total/NA	Water	7470A	321357
400-126621-16	ARGWC-15	Total/NA	Water	7470A	321357
400-126621-17	ARGWC-15(FILTERED)	Dissolved	Water	7470A	321357
MB 400-321357/14-A	Method Blank	Total/NA	Water	7470A	321357
LCS 400-321357/15-A	Lab Control Sample	Total/NA	Water	7470A	321357
400-126671-A-1-C MS	Matrix Spike	Total/NA	Water	7470A	321357
400-126671-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	321357

Analysis Batch: 321877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-12 - RA	ARGWC-16	Total Recoverable	Water	6020	321514
400-126621-13 - RA	ARGWC-10	Total Recoverable	Water	6020	321514
400-126621-14 - RA	ARGWC-18	Total Recoverable	Water	6020	321514
400-126621-15 - RA	ARGWC-17	Total Recoverable	Water	6020	321454
400-126621-16 - RA	ARGWC-15	Total Recoverable	Water	6020	321454
400-126621-17 - RA	ARGWC-15(FILTERED)	Dissolved	Water	6020	321454
MB 400-321454/1-A ^5	Method Blank	Total Recoverable	Water	6020	321454
MB 400-321514/1-A ^5	Method Blank	Total Recoverable	Water	6020	321514
LCS 400-321454/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	321454
LCS 400-321514/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	321514

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Metals (Continued)

Analysis Batch: 321877 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126512-C-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	321454
400-126512-C-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	321454
400-126524-A-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	321514
400-126524-A-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	321514

Analysis Batch: 322475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-14 - DL	ARGWC-18	Total Recoverable	Water	6020	321514
MB 400-321514/1-A ^5	Method Blank	Total Recoverable	Water	6020	321514
LCS 400-321514/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	321514

General Chemistry

Analysis Batch: 321321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total/NA	Water	SM 2540C	
400-126621-2	ARGWA-12	Total/NA	Water	SM 2540C	
MB 400-321321/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-321321/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126525-D-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 321595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-4	ARGWA-13	Total/NA	Water	SM 2540C	
400-126621-5	ARGWC-9	Total/NA	Water	SM 2540C	
400-126621-6	ARGWA-14	Total/NA	Water	SM 2540C	
400-126621-11	DUP-1	Total/NA	Water	SM 2540C	
MB 400-321595/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-321595/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126621-11 DU	DUP-1	Total/NA	Water	SM 2540C	

Analysis Batch: 321596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-3	ARGWC-7	Total/NA	Water	SM 2540C	
400-126621-7	ARGWA-3	Total/NA	Water	SM 2540C	
400-126621-8	FB-1	Total/NA	Water	SM 2540C	
400-126621-9	FERB-1	Total/NA	Water	SM 2540C	
400-126621-10	ARGWC-8	Total/NA	Water	SM 2540C	
MB 400-321596/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-321596/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126621-3 DU	ARGWC-7	Total/NA	Water	SM 2540C	

Analysis Batch: 321650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-12	ARGWC-16	Total/NA	Water	SM 2540C	
400-126621-13	ARGWC-10	Total/NA	Water	SM 2540C	
MB 400-321650/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-321650/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126512-B-15 DU	Duplicate	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

General Chemistry (Continued)

Analysis Batch: 321855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-14	ARGWC-18	Total/NA	Water	SM 2540C	
400-126621-15	ARGWC-17	Total/NA	Water	SM 2540C	
MB 400-321855/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-321855/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126621-14 DU	ARGWC-18	Total/NA	Water	SM 2540C	

Analysis Batch: 321859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-16	ARGWC-15	Total/NA	Water	SM 2540C	
MB 400-321859/1	Method Blank	Total/NA	Water	SM 2540C	
400-126706-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-322490/45
Matrix: Water
Analysis Batch: 322490

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/14/16 01:14	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 01:14	1
Sulfate	<0.70		1.0	0.70	mg/L			09/14/16 01:14	1

Lab Sample ID: LCS 400-322490/46
Matrix: Water
Analysis Batch: 322490

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.53		mg/L		95	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	9.62		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-322490/47
Matrix: Water
Analysis Batch: 322490

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.52		mg/L		95	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	0	15
Sulfate	10.0	9.74		mg/L		97	90 - 110	1	15

Lab Sample ID: 400-126637-A-1 MSD
Matrix: Water
Analysis Batch: 322490

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1100	E	100	1140	E 4	mg/L		40	80 - 120	2	20
Fluoride	18		100	119		mg/L		101	80 - 120	3	20
Sulfate	34		100	136		mg/L		103	80 - 120	0	20

Lab Sample ID: 400-126677-A-3 MS
Matrix: Water
Analysis Batch: 322490

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.6		10.0	17.0		mg/L		104	80 - 120
Fluoride	0.090	J	10.0	11.2		mg/L		111	80 - 120
Sulfate	53	E	10.0	63.2	E 4	mg/L		104	80 - 120

Lab Sample ID: MB 400-322758/4
Matrix: Water
Analysis Batch: 322758

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/14/16 15:03	1
Fluoride	<0.082		0.20	0.082	mg/L			09/14/16 15:03	1
Sulfate	<0.70		1.0	0.70	mg/L			09/14/16 15:03	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-322758/5
Matrix: Water
Analysis Batch: 322758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.45		mg/L		95	90 - 110
Fluoride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	9.23		mg/L		92	90 - 110

Lab Sample ID: LCSD 400-322758/6
Matrix: Water
Analysis Batch: 322758

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.45		mg/L		95	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	9.27		mg/L		93	90 - 110	0	15

Lab Sample ID: 400-126621-9 MS
Matrix: Water
Analysis Batch: 322758

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89		10.0	9.98		mg/L		100	80 - 120
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120
Sulfate	<0.70		10.0	9.78		mg/L		98	80 - 120

Lab Sample ID: 400-126677-A-1 MSD
Matrix: Water
Analysis Batch: 322758

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	55		50.0	102		mg/L		95	80 - 120	0	20
Fluoride	<0.41		50.0	52.1		mg/L		104	80 - 120	0	20
Sulfate	<3.5		50.0	49.3		mg/L		99	80 - 120	1	20

Lab Sample ID: MB 400-322932/4
Matrix: Water
Analysis Batch: 322932

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			09/16/16 14:06	1
Fluoride	<0.082		0.20	0.082	mg/L			09/16/16 14:06	1
Sulfate	<0.70		1.0	0.70	mg/L			09/16/16 14:06	1

Lab Sample ID: LCS 400-322932/5
Matrix: Water
Analysis Batch: 322932

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.65		mg/L		96	90 - 110
Fluoride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-322932/6
Matrix: Water
Analysis Batch: 322932

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.52		mg/L		95	90 - 110	1	15
Fluoride	10.0	9.89		mg/L		99	90 - 110	1	15
Sulfate	10.0	9.86		mg/L		99	90 - 110	3	15

Lab Sample ID: 400-126621-3 MS
Matrix: Water
Analysis Batch: 322932

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.1		50.0	55.3		mg/L		101	80 - 120		
Fluoride	<0.41		50.0	52.9		mg/L		106	80 - 120		
Sulfate	57		50.0	109		mg/L		103	80 - 120		

Lab Sample ID: 400-126621-3 MSD
Matrix: Water
Analysis Batch: 322932

Client Sample ID: ARGWC-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	5.1		50.0	55.5		mg/L		101	80 - 120	0	20
Fluoride	<0.41		50.0	52.9		mg/L		106	80 - 120	0	20
Sulfate	57		50.0	109		mg/L		103	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-321354/1-A ^5
Matrix: Water
Analysis Batch: 321510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 321354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/04/16 11:49	09/06/16 16:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/04/16 11:49	09/06/16 16:39	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/04/16 11:49	09/06/16 16:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 16:39	5
Boron	<0.021		0.050	0.021	mg/L		09/04/16 11:49	09/06/16 16:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/04/16 11:49	09/06/16 16:39	5
Calcium	<0.13		0.25	0.13	mg/L		09/04/16 11:49	09/06/16 16:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/04/16 11:49	09/06/16 16:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/04/16 11:49	09/06/16 16:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/04/16 11:49	09/06/16 16:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/04/16 11:49	09/06/16 16:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/04/16 11:49	09/06/16 16:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/04/16 11:49	09/06/16 16:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/04/16 11:49	09/06/16 16:39	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: LCS 400-321354/2-A ^1
Matrix: Water
Analysis Batch: 321510

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 321354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0533		mg/L		107	80 - 120
Arsenic	0.0500	0.0564		mg/L		113	80 - 120
Barium	0.0500	0.0470		mg/L		94	80 - 120
Beryllium	0.0500	0.0501		mg/L		100	80 - 120
Boron	0.100	0.0998		mg/L		100	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	5.00	4.91		mg/L		98	80 - 120
Chromium	0.0500	0.0511		mg/L		102	80 - 120
Cobalt	0.0500	0.0479		mg/L		96	80 - 120
Lead	0.0500	0.0527		mg/L		105	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.0500	0.0516		mg/L		103	80 - 120
Selenium	0.0500	0.0521		mg/L		104	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

Lab Sample ID: 400-126621-3 MS
Matrix: Water
Analysis Batch: 321510

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 321354

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0543		mg/L		109	75 - 125
Arsenic	<0.00046		0.0500	0.0581		mg/L		116	75 - 125
Barium	0.030		0.0500	0.0773		mg/L		94	75 - 125
Beryllium	<0.00034		0.0500	0.0537		mg/L		107	75 - 125
Boron	0.14		0.100	0.257		mg/L		118	75 - 125
Cadmium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125
Calcium	12		5.00	17.1		mg/L		103	75 - 125
Chromium	0.0033		0.0500	0.0547		mg/L		103	75 - 125
Cobalt	<0.00040		0.0500	0.0486		mg/L		97	75 - 125
Lead	<0.00035		0.0500	0.0558		mg/L		112	75 - 125
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125
Molybdenum	<0.00085		0.0500	0.0524		mg/L		105	75 - 125
Selenium	<0.00024		0.0500	0.0519		mg/L		104	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

Lab Sample ID: 400-126621-3 MSD
Matrix: Water
Analysis Batch: 321510

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 321354

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0561		mg/L		112	75 - 125	4	20
Barium	0.030		0.0500	0.0763		mg/L		92	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0504		mg/L		101	75 - 125	6	20
Boron	0.14		0.100	0.238		mg/L		99	75 - 125	8	20
Cadmium	<0.00034		0.0500	0.0497		mg/L		99	75 - 125	1	20
Calcium	12		5.00	16.7		mg/L		95	75 - 125	2	20
Chromium	0.0033		0.0500	0.0535		mg/L		100	75 - 125	2	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126621-3 MSD
Matrix: Water
Analysis Batch: 321510

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 321354

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	<0.00040		0.0500	0.0474		mg/L		95	75 - 125	3	20
Lead	<0.00035		0.0500	0.0553		mg/L		111	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0549		mg/L		110	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0504		mg/L		101	75 - 125	4	20
Selenium	<0.00024		0.0500	0.0509		mg/L		102	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125	0	20

Lab Sample ID: MB 400-321454/1-A ^5
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/07/16 09:44	09/07/16 17:47	5
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		09/07/16 09:44	09/07/16 17:47	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/07/16 09:44	09/07/16 17:47	5
Barium, Dissolved	<0.00049		0.0025	0.00049	mg/L		09/07/16 09:44	09/07/16 17:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/07/16 09:44	09/07/16 17:47	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		09/07/16 09:44	09/07/16 17:47	5
Boron	<0.021		0.050	0.021	mg/L		09/07/16 09:44	09/07/16 17:47	5
Boron, Dissolved	<0.021		0.050	0.021	mg/L		09/07/16 09:44	09/07/16 17:47	5
Calcium	<0.13		0.25	0.13	mg/L		09/07/16 09:44	09/07/16 17:47	5
Calcium, Dissolved	<0.13		0.25	0.13	mg/L		09/07/16 09:44	09/07/16 17:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/07/16 09:44	09/07/16 17:47	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		09/07/16 09:44	09/07/16 17:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/07/16 09:44	09/07/16 17:47	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		09/07/16 09:44	09/07/16 17:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/07/16 09:44	09/07/16 17:47	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		09/07/16 09:44	09/07/16 17:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/07/16 09:44	09/07/16 17:47	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		09/07/16 09:44	09/07/16 17:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/07/16 09:44	09/07/16 17:47	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		09/07/16 09:44	09/07/16 17:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/07/16 09:44	09/07/16 17:47	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		09/07/16 09:44	09/07/16 17:47	5

Lab Sample ID: MB 400-321454/1-A ^5
Matrix: Water
Analysis Batch: 321877

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 09:44	09/08/16 13:01	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		09/07/16 09:44	09/08/16 13:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 09:44	09/08/16 13:01	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		09/07/16 09:44	09/08/16 13:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/07/16 09:44	09/08/16 13:01	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		09/07/16 09:44	09/08/16 13:01	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: LCS 400-321454/2-A ^1
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0500	0.0537		mg/L		107	80 - 120
Arsenic, Dissolved	0.0500	0.0537		mg/L		107	80 - 120
Barium	0.0500	0.0476		mg/L		95	80 - 120
Barium, Dissolved	0.0500	0.0476		mg/L		95	80 - 120
Beryllium	0.0500	0.0540		mg/L		108	80 - 120
Beryllium, Dissolved	0.0500	0.0540		mg/L		108	80 - 120
Boron	0.100	0.106		mg/L		106	80 - 120
Boron, Dissolved	0.100	0.106		mg/L		106	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Calcium, Dissolved	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0500		mg/L		100	80 - 120
Chromium, Dissolved	0.0500	0.0500		mg/L		100	80 - 120
Cobalt	0.0500	0.0515		mg/L		103	80 - 120
Cobalt, Dissolved	0.0500	0.0515		mg/L		103	80 - 120
Lead	0.0500	0.0499		mg/L		100	80 - 120
Lead, Dissolved	0.0500	0.0499		mg/L		100	80 - 120
Lithium	0.0500	0.0561		mg/L		112	80 - 120
Lithium, Dissolved	0.0500	0.0561		mg/L		112	80 - 120
Molybdenum	0.0500	0.0499		mg/L		100	80 - 120
Molybdenum, Dissolved	0.0500	0.0499		mg/L		100	80 - 120
Selenium	0.0500	0.0504		mg/L		101	80 - 120
Selenium, Dissolved	0.0500	0.0504		mg/L		101	80 - 120

Lab Sample ID: LCS 400-321454/2-A ^1
Matrix: Water
Analysis Batch: 321877

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Antimony, Dissolved	0.0500	0.0527		mg/L		105	80 - 120
Cadmium	0.0500	0.0536		mg/L		107	80 - 120
Cadmium, Dissolved	0.0500	0.0536		mg/L		107	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120
Thallium, Dissolved	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-126512-C-3-B MS ^5
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0516	^	mg/L		103	75 - 125
Antimony, Dissolved	<0.0010		0.0500	0.0516	^	mg/L		103	75 - 125
Arsenic	<0.00046		0.0500	0.0551		mg/L		110	75 - 125
Arsenic, Dissolved	<0.00046		0.0500	0.0551		mg/L		110	75 - 125
Barium	0.041		0.0500	0.0914		mg/L		101	75 - 125
Barium, Dissolved	0.041		0.0500	0.0914		mg/L		101	75 - 125
Beryllium	<0.00034		0.0500	0.0543		mg/L		109	75 - 125
Beryllium, Dissolved	<0.00034		0.0500	0.0543		mg/L		109	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126512-C-3-B MS ^5
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021	F1	0.100	0.137	F1	mg/L		137	75 - 125
Boron, Dissolved	<0.021	F1	0.100	0.137	F1	mg/L		137	75 - 125
Cadmium	<0.00034		0.0500	0.0483	^	mg/L		97	75 - 125
Cadmium, Dissolved	<0.00034		0.0500	0.0483	^	mg/L		97	75 - 125
Calcium	0.88		5.00	5.93		mg/L		101	75 - 125
Calcium, Dissolved	0.88		5.00	5.93		mg/L		101	75 - 125
Chromium	<0.0011		0.0500	0.0510		mg/L		102	75 - 125
Chromium, Dissolved	<0.0011		0.0500	0.0510		mg/L		102	75 - 125
Cobalt	0.00055	J	0.0500	0.0534		mg/L		106	75 - 125
Cobalt, Dissolved	0.00055	J	0.0500	0.0534		mg/L		106	75 - 125
Lead	<0.00035		0.0500	0.0506		mg/L		101	75 - 125
Lead, Dissolved	<0.00035		0.0500	0.0506		mg/L		101	75 - 125
Lithium	<0.0032		0.0500	0.0564		mg/L		113	75 - 125
Lithium, Dissolved	<0.0032		0.0500	0.0564		mg/L		113	75 - 125
Molybdenum	<0.00085		0.0500	0.0502		mg/L		100	75 - 125
Molybdenum, Dissolved	<0.00085		0.0500	0.0502		mg/L		100	75 - 125
Selenium	0.00046	J	0.0500	0.0516		mg/L		102	75 - 125
Selenium, Dissolved	0.00046	J	0.0500	0.0516		mg/L		102	75 - 125
Thallium	<0.00085	^	0.0100	0.00951	^	mg/L		95	75 - 125
Thallium, Dissolved	<0.00085	^	0.0100	0.00951	^	mg/L		95	75 - 125

Lab Sample ID: 400-126512-C-3-B MS ^5
Matrix: Water
Analysis Batch: 321877

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0551		mg/L		110	75 - 125
Antimony, Dissolved	<0.0010		0.0500	0.0551		mg/L		110	75 - 125
Cadmium	<0.00034		0.0500	0.0549		mg/L		110	75 - 125
Cadmium, Dissolved	<0.00034		0.0500	0.0549		mg/L		110	75 - 125
Thallium	<0.00085		0.0100	0.0106		mg/L		106	75 - 125
Thallium, Dissolved	<0.00085		0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 400-126512-C-3-C MSD ^5
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
										RPD	Limit
Antimony	<0.0010		0.0500	0.0493	^	mg/L		99	75 - 125	5	20
Antimony, Dissolved	<0.0010		0.0500	0.0493	^	mg/L		99	75 - 125	5	20
Arsenic	<0.00046		0.0500	0.0545		mg/L		109	75 - 125	1	20
Arsenic, Dissolved	<0.00046		0.0500	0.0545		mg/L		109	75 - 125	1	20
Barium	0.041		0.0500	0.0884		mg/L		95	75 - 125	3	20
Barium, Dissolved	0.041		0.0500	0.0884		mg/L		95	75 - 125	3	20
Beryllium	<0.00034		0.0500	0.0545		mg/L		109	75 - 125	0	20
Beryllium, Dissolved	<0.00034		0.0500	0.0545		mg/L		109	75 - 125	0	20
Boron	<0.021	F1	0.100	0.128	F1	mg/L		128	75 - 125	6	20
Boron, Dissolved	<0.021	F1	0.100	0.128	F1	mg/L		128	75 - 125	6	20
Cadmium	<0.00034		0.0500	0.0456	^	mg/L		91	75 - 125	6	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126512-C-3-C MSD ^5
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium, Dissolved	<0.00034		0.0500	0.0456	^	mg/L		91	75 - 125	6	20
Calcium	0.88		5.00	5.84		mg/L		99	75 - 125	2	20
Calcium, Dissolved	0.88		5.00	5.84		mg/L		99	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0492		mg/L		98	75 - 125	4	20
Chromium, Dissolved	<0.0011		0.0500	0.0492		mg/L		98	75 - 125	4	20
Cobalt	0.00055	J	0.0500	0.0526		mg/L		104	75 - 125	2	20
Cobalt, Dissolved	0.00055	J	0.0500	0.0526		mg/L		104	75 - 125	2	20
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125	0	20
Lead, Dissolved	<0.00035		0.0500	0.0504		mg/L		101	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0556		mg/L		111	75 - 125	1	20
Lithium, Dissolved	<0.0032		0.0500	0.0556		mg/L		111	75 - 125	1	20
Molybdenum	<0.00085		0.0500	0.0490		mg/L		98	75 - 125	2	20
Molybdenum, Dissolved	<0.00085		0.0500	0.0490		mg/L		98	75 - 125	2	20
Selenium	0.00046	J	0.0500	0.0503		mg/L		100	75 - 125	3	20
Selenium, Dissolved	0.00046	J	0.0500	0.0503		mg/L		100	75 - 125	3	20
Thallium	<0.00085	^	0.0100	0.00940	^	mg/L		94	75 - 125	1	20
Thallium, Dissolved	<0.00085	^	0.0100	0.00940	^	mg/L		94	75 - 125	1	20

Lab Sample ID: 400-126512-C-3-C MSD ^5
Matrix: Water
Analysis Batch: 321877

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 321454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125	4	20
Antimony, Dissolved	<0.0010		0.0500	0.0528		mg/L		106	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0533		mg/L		107	75 - 125	3	20
Cadmium, Dissolved	<0.00034		0.0500	0.0533		mg/L		107	75 - 125	3	20
Thallium	<0.00085		0.0100	0.0104		mg/L		104	75 - 125	2	20
Thallium, Dissolved	<0.00085		0.0100	0.0104		mg/L		104	75 - 125	2	20

Lab Sample ID: MB 400-321514/1-A ^5
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/07/16 09:00	09/07/16 20:38	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/07/16 09:00	09/07/16 20:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/07/16 09:00	09/07/16 20:38	5
Boron	<0.021		0.050	0.021	mg/L		09/07/16 09:00	09/07/16 20:38	5
Calcium	<0.13		0.25	0.13	mg/L		09/07/16 09:00	09/07/16 20:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/07/16 09:00	09/07/16 20:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/07/16 09:00	09/07/16 20:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/07/16 09:00	09/07/16 20:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/07/16 09:00	09/07/16 20:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/07/16 09:00	09/07/16 20:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/07/16 09:00	09/07/16 20:38	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: MB 400-321514/1-A ^5
Matrix: Water
Analysis Batch: 321877

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/07/16 09:00	09/08/16 15:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/07/16 09:00	09/08/16 15:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/07/16 09:00	09/08/16 15:37	5

Lab Sample ID: MB 400-321514/1-A ^5
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021	L	0.050	0.021	mg/L		09/07/16 09:00	09/13/16 15:59	5

Lab Sample ID: LCS 400-321514/2-A ^1
Matrix: Water
Analysis Batch: 321660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0519		mg/L		104	80 - 120
Barium	0.0500	0.0458		mg/L		92	80 - 120
Beryllium	0.0500	0.0500		mg/L		100	80 - 120
Boron	0.100	0.0994		mg/L		99	80 - 120
Calcium	5.00	4.80		mg/L		96	80 - 120
Chromium	0.0500	0.0484		mg/L		97	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0471		mg/L		94	80 - 120
Lithium	0.0500	0.0528		mg/L		106	80 - 120
Molybdenum	0.0500	0.0484		mg/L		97	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120

Lab Sample ID: LCS 400-321514/2-A ^1
Matrix: Water
Analysis Batch: 321877

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Cadmium	0.0500	0.0524		mg/L		105	80 - 120
Thallium	0.0100	0.00994		mg/L		99	80 - 120

Lab Sample ID: LCS 400-321514/2-A ^1
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0872		mg/L		87	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126524-A-2-C MS ^5

Matrix: Water

Analysis Batch: 321660

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 321514

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	Limits	
	Result			Result					%Rec.	
Antimony	<0.0010	^	0.0500	0.0490	^	mg/L		98	75 - 125	
Arsenic	<0.00046		0.0500	0.0528		mg/L		106	75 - 125	
Barium	0.016		0.0500	0.0625		mg/L		93	75 - 125	
Beryllium	<0.00034		0.0500	0.0530		mg/L		106	75 - 125	
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	
Cadmium	<0.00034	^	0.0500	0.0456	^	mg/L		91	75 - 125	
Calcium	1.7		5.00	6.69		mg/L		100	75 - 125	
Chromium	0.0049		0.0500	0.0551		mg/L		100	75 - 125	
Cobalt	<0.00040		0.0500	0.0515		mg/L		103	75 - 125	
Lead	0.00039	J	0.0500	0.0485		mg/L		96	75 - 125	
Lithium	0.013		0.0500	0.0680		mg/L		110	75 - 125	
Molybdenum	<0.00085		0.0500	0.0501		mg/L		100	75 - 125	
Selenium	<0.00024		0.0500	0.0517		mg/L		103	75 - 125	
Thallium	<0.00085	^	0.0100	0.00878	^	mg/L		88	75 - 125	

Lab Sample ID: 400-126524-A-2-C MS ^5

Matrix: Water

Analysis Batch: 321877

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 321514

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	Limits	
	Result			Result					%Rec.	
Antimony	<0.0010		0.0500	0.0507		mg/L		101	75 - 125	
Cadmium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125	

Lab Sample ID: 400-126524-A-2-D MSD ^5

Matrix: Water

Analysis Batch: 321660

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 321514

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	Limits		RPD	Limit
	Result			Result					%Rec.			
Antimony	<0.0010	^	0.0500	0.0468	^	mg/L		94	75 - 125	5	20	
Arsenic	<0.00046		0.0500	0.0534		mg/L		107	75 - 125	1	20	
Barium	0.016		0.0500	0.0628		mg/L		93	75 - 125	1	20	
Beryllium	<0.00034		0.0500	0.0524		mg/L		105	75 - 125	1	20	
Boron	<0.021		0.100	0.100		mg/L		100	75 - 125	5	20	
Cadmium	<0.00034	^	0.0500	0.0454	^	mg/L		91	75 - 125	0	20	
Calcium	1.7		5.00	6.36		mg/L		94	75 - 125	5	20	
Chromium	0.0049		0.0500	0.0536		mg/L		98	75 - 125	3	20	
Cobalt	<0.00040		0.0500	0.0515		mg/L		103	75 - 125	0	20	
Lead	0.00039	J	0.0500	0.0471		mg/L		94	75 - 125	3	20	
Lithium	0.013		0.0500	0.0662		mg/L		106	75 - 125	3	20	
Molybdenum	<0.00085		0.0500	0.0482		mg/L		96	75 - 125	4	20	
Selenium	<0.00024		0.0500	0.0486		mg/L		97	75 - 125	6	20	
Thallium	<0.00085	^	0.0100	0.00865	^	mg/L		87	75 - 125	1	20	

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126524-A-2-D MSD ^5

Matrix: Water
Analysis Batch: 321877

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable
Prep Batch: 321514

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0499		mg/L		100	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0535		mg/L		107	75 - 125	3	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-321179/14-A

Matrix: Water
Analysis Batch: 321424

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 321179

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/03/16 13:38	09/06/16 10:20	1

Lab Sample ID: LCS 400-321179/15-A

Matrix: Water
Analysis Batch: 321424

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 321179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00100		mg/L		100	80 - 120

Lab Sample ID: 400-126631-H-1-B MS

Matrix: Water
Analysis Batch: 321424

Client Sample ID: Matrix Spike

Prep Type: Total/NA
Prep Batch: 321179

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.0015		0.00201	0.00323		mg/L		85	80 - 120

Lab Sample ID: 400-126631-H-1-C MSD

Matrix: Water
Analysis Batch: 321424

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA
Prep Batch: 321179

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.0015		0.00201	0.00360		mg/L		103	80 - 120	11	20

Lab Sample ID: MB 400-321357/14-A

Matrix: Water
Analysis Batch: 321841

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 321357

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/04/16 13:02	09/08/16 12:39	1
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		09/04/16 13:02	09/08/16 12:39	1

Lab Sample ID: LCS 400-321357/15-A

Matrix: Water
Analysis Batch: 321841

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 321357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000857		mg/L		85	80 - 120
Mercury, Dissolved	0.00101	0.000857		mg/L		85	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126671-A-1-C MS
Matrix: Water
Analysis Batch: 321841

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 321357

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Mercury	0.000079	J F1	0.00201	0.00162	F1	mg/L		77	80 - 120
Mercury, Dissolved	0.000079	J F1	0.00201	0.00162	F1	mg/L		77	80 - 120

Lab Sample ID: 400-126671-A-1-D MSD
Matrix: Water
Analysis Batch: 321841

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 321357

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Mercury	0.000079	J F1	0.00201	0.00160	F1	mg/L		76	80 - 120	1	20
Mercury, Dissolved	0.000079	J F1	0.00201	0.00160	F1	mg/L		76	80 - 120	1	20

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

Lab Sample ID: MB 400-321321/1
Matrix: Water
Analysis Batch: 321321

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/03/16 13:40	1

Lab Sample ID: LCS 400-321321/2
Matrix: Water
Analysis Batch: 321321

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Total Dissolved Solids	293	240		mg/L		82	78 - 122

Lab Sample ID: 400-126525-D-3 DU
Matrix: Water
Analysis Batch: 321321

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Total Dissolved Solids	180		188		mg/L		2	5

Lab Sample ID: MB 400-321595/1
Matrix: Water
Analysis Batch: 321595

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			09/07/16 11:48	1

Lab Sample ID: LCS 400-321595/2
Matrix: Water
Analysis Batch: 321595

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Total Dissolved Solids	293	250		mg/L		85	78 - 122

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126621-11 DU
Matrix: Water
Analysis Batch: 321595

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	140		142		mg/L		0	5

Lab Sample ID: MB 400-321596/1
Matrix: Water
Analysis Batch: 321596

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	<3.4		5.0	3.4	mg/L			09/07/16 13:28	1

Lab Sample ID: LCS 400-321596/2
Matrix: Water
Analysis Batch: 321596

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	293	320		mg/L		109	78 - 122

Lab Sample ID: 400-126621-3 DU
Matrix: Water
Analysis Batch: 321596

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	150		146		mg/L		0	5

Lab Sample ID: MB 400-321650/1
Matrix: Water
Analysis Batch: 321650

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	<3.4		5.0	3.4	mg/L			09/07/16 13:21	1

Lab Sample ID: LCS 400-321650/2
Matrix: Water
Analysis Batch: 321650

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	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-126512-B-15 DU
Matrix: Water
Analysis Batch: 321650

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	56		58.0		mg/L		4	5

Lab Sample ID: MB 400-321855/1
Matrix: Water
Analysis Batch: 321855

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	<3.4		5.0	3.4	mg/L			09/08/16 16:23	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
 SDG: Disposal Unit 3 Phase 2

Lab Sample ID: LCS 400-321855/2
Matrix: Water
Analysis Batch: 321855

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	293	320		mg/L		109	78 - 122

Lab Sample ID: 400-126621-14 DU
Matrix: Water
Analysis Batch: 321855

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	450		446		mg/L		0.4	5

Lab Sample ID: MB 400-321859/1
Matrix: Water
Analysis Batch: 321859

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	<3.4		5.0	3.4	mg/L			09/08/16 17:26	1

Lab Sample ID: 400-126706-A-3 DU
Matrix: Water
Analysis Batch: 321859


Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	450		448		mg/L		0	5

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - PLANT ARLWRIGHT - PHASE 2 Site: DISPOSAL UNIT 3		Sampler: ERM. Lab PM: Whitnire, Cheyenne R E-Mail: cheyenne.whitnire@testamericainc.com Carrier Tracking No(s): Job #: Jdf1		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Preservation Codes: M - Hexane N - None O - AsNGO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify) Other:	
Sample Identification ARGWA-5 ARGWA-12		Sample Date: 8/30/16 Sample Time: 1540 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air): W		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320 TSP - SM 2540C : Cl,F,S04 - EPA 300 TMS - SM 2540C : Cl,F,S04 - EPA 300		Special Instructions/Note: Total Number of Containers: 2 400-126621 COC	
Possible Hazard Identification <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"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements: PLEASE CC: MANA PATIYA & PRATH MCCOY with RESULTS	
Empty Kit Relinquished by: Relinquished by: [Signature] Date/Time: 8/31/16 1555 Company: [Signature]		Received by: Received by: [Signature] Date/Time: 8/31/16 1555 Company: [Signature]		Empty Kit Relinquished by: Relinquished by: [Signature] Date/Time: 8/31/16 1715 Company: [Signature]		Received by: Received by: [Signature] Date/Time: 8/31/16 0904 Company: [Signature]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature:		Remarks: [Signature]		Date/Time:	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR- PLANT ARKWRIGHT - PHASE 2 Site: DISPOSAL UNIT 3		Lab PM: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-57303-24790.1 Page: 1 of 1 Job #:	
Analysis Requested TDS - SM 2640C ; Cl, F, SO4 - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320  400-126621 COC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, BT=Tissue, AF=Air)		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: PLEASE CC: MARIO PARRILLA & HEATH MCCOY WITH RESULTS	
Possible Hazard Identification <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"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Date: _____ Relinquished by: _____ Company: _____ Recieved by: _____ Date/Time: 9/11/16 17:32 Relinquished by: _____ Date/Time: 9/11/16 18:30 Recieved by: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Recieved by: _____ Company: _____ Cooler Temperature(s) °C and Other Remarks: 5.4°C JRC 6	



Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright - Phase 2 Site: Disposal Unit #3		Lab Pmt: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Phone: 404-408-6916		Sampler: ERM- J. Morrison, C. Hurdle, J. Worthen Carrier Tracking No(s): Lab Pmt: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 1 of 1 Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested Radium 226 & 228 - SW-846 9316 & 9320 Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2640C; Cl,F,SO4 - EPA 300 Field Filtered Sample (L or NO) Radium 226 & 228 - SW-846 9316 & 9320 Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2640C; Cl,F,SO4 - EPA 300		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Z - other (specify)		Special Instructions/Note: Total Number of Containers:	
Sample Identification ARGWC-16 ARGWC-10 ARGWC-18 ARGWC-17		Sample Date 9/1/16 9/1/16 9/1/16 9/1/16		Sample Time 09:03 09:15 12:55 14:46		Matrix (W=water, S=solid, O=wastefoil, BT=tissue, A=air) Water Water Water Water	
Possible Hazard Identification X Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Polson B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements: cc: Maria Padilla and Heath McCorkle on results		Empty Kit Relinquished by:	
Relinquished by: <i>Willie</i>		Date/Time: 9/2/16 1357 Company:		Received by: <i>[Signature]</i>		Date/Time: 9/2/16 1357 Company:	
Relinquished by: <i>[Signature]</i>		Date/Time: 9/2/16 1600 Company:		Received by: <i>[Signature]</i>		Date/Time: 9/2/16 932 Company:	
Relinquished by: <i>[Signature]</i>		Date/Time:		Received by: <i>[Signature]</i>		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.966 716		Method of Shipment:	


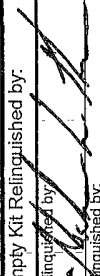
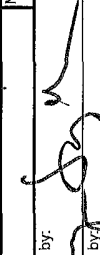


Chain of Custody Record

Client Information Client/Contact: JRM - J. R. McLaughlin Phone: 704 408-6916 Company: Southern Company		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-57303-24790.1 Page: 1 of 1 Job #:	
Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested TDS - SM 2540C; Cl ₂ , SO ₄ - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320 Total Number of Containers:	
Site: DISPOSAL UNIT 2 Project Name: CCR - PLANT ARKWRIGHT - PHAS 2 Email: JAbraham@southernco.com		Sample Date: 9/2/16 Sample Time: 1120 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, AS=Air): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification: ARGUC-15		Special Instructions/Note:		Possible Hazard Identification <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"/> Radiological	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		Months	
Empty Kit Relinquished by:		Special Instructions/QC Requirements: Please cc: MARY PADILLA & KATH MCGOWAN WITH RESULTS		Date/Time: 9/13/16 16:34 Company: TH-16N	
Relinquished by:		Date/Time: 9/13/16 16:34 Company: TH-16N		Date/Time: 9/13/16 09:32 Company: TH-16N	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Chain of Custody Record

Client Information Client/Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - PLANT AIRWASH - PHASE 2 Site: DISPOSAL UNIT 3		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Carrier Tracking No(s): COC No: 400-57303-24790.1 Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 TDS - SM 2540C : Cl, F, SO4 - EPA 300 Halogenated (MS/MS/MS/NO) D.D.	
Sample Identification AR6WC-15 (FILLER) Sample Date: 9/2/16 Sample Time: 1120 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air): W		Special Instructions/Note: CALL WENT NRY. GUYA NOT COLLECT 1000 SAMPLE  400-126621 COC	
Possible Hazard Identification <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"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: RPA & CC: MARGA PAINULA & ANITA MALCOLM W/IN RESULTS			
Relinquished by:  Date: 9/2/16 16:34 Company: RRM		Relinquished by:  Date: 9/2/16 16:34 Company: TR	
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:	
Cooler Temperature(s) °C and Other Remarks: 0.0°C IR6			

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-126621-1
SDG Number: Disposal Unit 3 Phase 2

Login Number: 126621

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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.	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	2.2°C IR-6, 5.6°C , 0.9°C , 0.0°C IR-6
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-1
SDG: Disposal Unit 3 Phase 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16 *
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-126621-2

TestAmerica Sample Delivery Group: Disposal Unit 3 Phase 2

Client Project/Site: CCR Plant Arkwright

For:

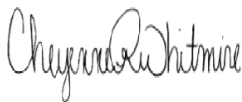
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Job ID: 400-126621-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-126621-2

RAD

Method(s) 9320: Radium-228 Prep Batch 160-269083: The radium-228 detection goal was not met for the following samples due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 93938 for sample 280-87511-A-2-C) and limited volume available for analysis (see prep NCM 94009 for sample 400-126621-C-11-E) : DUP-1 (400-126621-11). In addition, the affected samples have lower barium carrier recoveries which contributed to an elevated MDC. Analytical results are reported with the detection limit achieved.

Method(s) 9320: Radium-228 Prep Batch 160-272418: The radium-228 detection goal was not met for the following samples due to the reduced sample volume attributed to the presence of matrix interferences: ARGWC-15 (400-126621-16), (LCS 160-272418/2-A), (LCSD 160-272418/3-A) and (MB 160-272418/1-A). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-267897: The following samples were prepared at a reduced aliquot due to limited volume. ARGWA-5 (400-126621-1) and ARGWA-12 (400-126621-2)

Method(s) PrecSep_0: Radium-228 Prep Batch: 160-269083: The following sample was prepared at a reduced aliquot due to sediment. ARGWC-15 (400-126621-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to avoid matrix interference with homogeneity.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-269083: The yttrium carrier recovery is outside the lower control limit (40%) for the following sample: ARGWC-15 (400-126621-16). The QC samples associated with the batch have acceptable carrier recovery indicating the possibility of matrix interference. The pellet was noted as small throughout the out of in-growth process.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-269083: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: ARGWC-7 (400-126621-3), ARGWA-13 (400-126621-4), ARGWC-9 (400-126621-5), ARGWA-14 (400-126621-6), ARGWA-3 (400-126621-7), FB-1 (400-126621-8), FERB-1 (400-126621-9), ARGWC-8 (400-126621-10), DUP-1 (400-126621-11), ARGWC-16 (400-126621-12), ARGWC-10 (400-126621-13), ARGWC-18 (400-126621-14) and ARGWC-17 (400-126621-15). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. The samples were also prepared at a reduced aliquot due to limited volume.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-272418: The following samples were prepared at a reduced aliquot due to sediment in sample ARGWC-15 (400-126621-16). 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 160-267892: The following sample was prepared at a reduced aliquot due to limited volume. ARGWA-5 (400-126621-1)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-269082: The following samples were run at reduced aliquot due to limited volume: ARGWC-7 (400-126621-3), ARGWA-13 (400-126621-4), ARGWC-9 (400-126621-5), ARGWA-14 (400-126621-6), ARGWA-3 (400-126621-7), FB-1 (400-126621-8), FERB-1 (400-126621-9), ARGWC-8 (400-126621-10), DUP-1 (400-126621-11), ARGWC-16 (400-126621-12), ARGWC-10 (400-126621-13), ARGWC-18 (400-126621-14) and ARGWC-17 (400-126621-15).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-269082: The following samples was run at reduced aliquot due to sediment in sample: ARGWC-15 (400-126621-16).

Method(s) PrecSep-21: Radium-228 Prep Batch 160-269082: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: ARGWC-7 (400-126621-3), ARGWA-13 (400-126621-4), ARGWC-9 (400-126621-5), ARGWA-14 (400-126621-6), ARGWA-3 (400-126621-7), FB-1 (400-126621-8), FERB-1 (400-126621-9), ARGWC-8 (400-126621-10), DUP-1 (400-126621-11), ARGWC-16 (400-126621-12), ARGWC-10 (400-126621-13), ARGWC-18 (400-126621-14), ARGWC-17 (400-126621-15) and ARGWC-15 (400-126621-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126621-1	ARGWA-5	Water	08/30/16 15:48	09/01/16 09:04
400-126621-2	ARGWA-12	Water	08/30/16 16:00	09/01/16 09:04
400-126621-3	ARGWC-7	Water	08/31/16 09:13	09/02/16 09:08
400-126621-4	ARGWA-13	Water	08/31/16 10:00	09/02/16 09:08
400-126621-5	ARGWC-9	Water	08/31/16 12:06	09/02/16 09:08
400-126621-6	ARGWA-14	Water	08/31/16 12:30	09/02/16 09:08
400-126621-7	ARGWA-3	Water	08/31/16 13:20	09/02/16 09:08
400-126621-8	FB-1	Water	08/31/16 14:00	09/02/16 09:08
400-126621-9	FERB-1	Water	08/31/16 14:00	09/02/16 09:08
400-126621-10	ARGWC-8	Water	08/31/16 15:44	09/02/16 09:08
400-126621-11	DUP-1	Water	08/31/16 00:00	09/02/16 09:08
400-126621-12	ARGWC-16	Water	09/01/16 09:03	09/03/16 09:32
400-126621-13	ARGWC-10	Water	09/01/16 09:15	09/03/16 09:32
400-126621-14	ARGWC-18	Water	09/01/16 12:55	09/03/16 09:32
400-126621-15	ARGWC-17	Water	09/01/16 14:46	09/03/16 09:32
400-126621-16	ARGWC-15	Water	09/02/16 11:20	09/03/16 09:32

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-5

Lab Sample ID: 400-126621-1

Date Collected: 08/30/16 15:48

Matrix: Water

Date Received: 09/01/16 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0853		0.0556	0.0561	1.00	0.0778	pCi/L	09/02/16 13:06	09/27/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/02/16 13:06	09/27/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.419	U	0.354	0.356	1.00	0.568	pCi/L	09/02/16 13:26	09/17/16 14:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/02/16 13:26	09/17/16 14:49	1
Y Carrier	78.9		40 - 110					09/02/16 13:26	09/17/16 14:49	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	0.505	U	0.359	0.361	5.00	0.568	pCi/L		09/28/16 01:04	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-12

Lab Sample ID: 400-126621-2

Date Collected: 08/30/16 16:00

Matrix: Water

Date Received: 09/01/16 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100		0.0518	0.0526	1.00	0.0660	pCi/L	09/02/16 13:06	09/27/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					09/02/16 13:06	09/27/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.00		0.348	0.360	1.00	0.484	pCi/L	09/02/16 13:26	09/17/16 14:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					09/02/16 13:26	09/17/16 14:49	1
Y Carrier	82.2		40 - 110					09/02/16 13:26	09/17/16 14:49	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	1.10		0.352	0.364	5.00	0.484	pCi/L		09/28/16 01:04	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
 SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-7

Lab Sample ID: 400-126621-3

Date Collected: 08/31/16 09:13

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0470	U	0.0733	0.0734	1.00	0.126	pCi/L	09/11/16 19:46	10/03/16 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					09/11/16 19:46	10/03/16 11:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.153	U	0.299	0.300	1.00	0.569	pCi/L	09/11/16 20:40	09/23/16 17:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					09/11/16 20:40	09/23/16 17:13	1
Y Carrier	83.7		40 - 110					09/11/16 20:40	09/23/16 17:13	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	-0.106	U	0.308	0.308	5.00	0.569	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-126621-4

Date Collected: 08/31/16 10:00

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0768	U	0.104	0.105	1.00	0.175	pCi/L	09/11/16 19:46	10/03/16 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					09/11/16 19:46	10/03/16 11:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.712		0.386	0.392	1.00	0.571	pCi/L	09/11/16 20:40	09/23/16 17:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					09/11/16 20:40	09/23/16 17:13	1
Y Carrier	84.9		40 - 110					09/11/16 20:40	09/23/16 17:13	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	0.788		0.400	0.406	5.00	0.571	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-9

Lab Sample ID: 400-126621-5

Date Collected: 08/31/16 12:06

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0621	U	0.0632	0.0635	1.00	0.0993	pCi/L	09/11/16 19:46	10/03/16 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					09/11/16 19:46	10/03/16 11:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.320	0.321	1.00	0.538	pCi/L	09/11/16 20:40	09/23/16 17:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					09/11/16 20:40	09/23/16 17:13	1
Y Carrier	84.5		40 - 110					09/11/16 20:40	09/23/16 17:13	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	0.279	U	0.326	0.327	5.00	0.538	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
 SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-14

Lab Sample ID: 400-126621-6

Date Collected: 08/31/16 12:30

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.209		0.126	0.127	1.00	0.173	pCi/L	09/11/16 19:46	10/03/16 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	53.0		40 - 110					09/11/16 19:46	10/03/16 11:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.740	U	0.603	0.606	1.00	0.957	pCi/L	09/11/16 20:40	09/23/16 17:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	53.0		40 - 110					09/11/16 20:40	09/23/16 17:13	1
Y Carrier	84.1		40 - 110					09/11/16 20:40	09/23/16 17:13	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	0.949	U	0.616	0.620	5.00	0.957	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
 SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-3

Lab Sample ID: 400-126621-7

Date Collected: 08/31/16 13:20

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0375	U	0.0839	0.0839	1.00	0.148	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	U	0.335	0.336	1.00	0.570	pCi/L	09/11/16 20:40	09/23/16 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					09/11/16 20:40	09/23/16 17:14	1
Y Carrier	84.1		40 - 110					09/11/16 20:40	09/23/16 17:14	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	0.226	U	0.346	0.346	5.00	0.570	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: FB-1
Date Collected: 08/31/16 14:00
Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-8
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	0.110	U	0.0943	0.0948	1.00	0.147	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0164	U	0.292	0.292	1.00	0.526	pCi/L	09/11/16 20:40	09/23/16 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					09/11/16 20:40	09/23/16 17:14	1
Y Carrier	85.6		40 - 110					09/11/16 20:40	09/23/16 17:14	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	0.127	U	0.307	0.307	5.00	0.526	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: FERB-1

Lab Sample ID: 400-126621-9

Date Collected: 08/31/16 14:00

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0952	U	0.0889	0.0893	1.00	0.140	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.259	U	0.318	0.319	1.00	0.526	pCi/L	09/11/16 20:40	09/23/16 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					09/11/16 20:40	09/23/16 17:14	1
Y Carrier	86.4		40 - 110					09/11/16 20:40	09/23/16 17:14	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	0.354	U	0.330	0.331	5.00	0.526	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-8

Lab Sample ID: 400-126621-10

Date Collected: 08/31/16 15:44

Matrix: Water

Date Received: 09/02/16 09:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.166		0.101	0.102	1.00	0.145	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0528	U	0.316	0.316	1.00	0.560	pCi/L	09/11/16 20:40	09/23/16 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					09/11/16 20:40	09/23/16 17:14	1
Y Carrier	85.2		40 - 110					09/11/16 20:40	09/23/16 17:14	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	0.331	0.332	5.00	0.560	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: DUP-1

Date Collected: 08/31/16 00:00

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-11

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	0.00820	U	0.125	0.125	1.00	0.234	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	48.1		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0576	U G	0.577	0.577	1.00	1.03	pCi/L	09/11/16 20:40	09/23/16 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	48.1		40 - 110					09/11/16 20:40	09/23/16 17:14	1
Y Carrier	84.5		40 - 110					09/11/16 20:40	09/23/16 17:14	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	0.0657	U	0.590	0.590	5.00	1.03	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-16

Lab Sample ID: 400-126621-12

Date Collected: 09/01/16 09:03

Matrix: Water

Date Received: 09/03/16 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0892	0.0904	1.00	0.116	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.401	U	0.342	0.344	1.00	0.543	pCi/L	09/11/16 20:40	09/23/16 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					09/11/16 20:40	09/23/16 17:14	1
Y Carrier	83.4		40 - 110					09/11/16 20:40	09/23/16 17:14	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	0.568		0.353	0.355	5.00	0.543	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-126621-13

Date Collected: 09/01/16 09:15

Matrix: Water

Date Received: 09/03/16 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00269	U	0.0708	0.0708	1.00	0.137	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.156	U	0.386	0.386	1.00	0.666	pCi/L	09/11/16 20:40	09/23/16 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					09/11/16 20:40	09/23/16 17:15	1
Y Carrier	72.9		40 - 110					09/11/16 20:40	09/23/16 17:15	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	0.153	U	0.392	0.392	5.00	0.666	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-18

Lab Sample ID: 400-126621-14

Date Collected: 09/01/16 12:55

Matrix: Water

Date Received: 09/03/16 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0707	U	0.0904	0.0906	1.00	0.150	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.8		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424	U	0.381	0.383	1.00	0.611	pCi/L	09/11/16 20:40	09/23/16 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.8		40 - 110					09/11/16 20:40	09/23/16 17:15	1
Y Carrier	85.6		40 - 110					09/11/16 20:40	09/23/16 17:15	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	0.495	U	0.392	0.394	5.00	0.611	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-17

Lab Sample ID: 400-126621-15

Date Collected: 09/01/16 14:46

Matrix: Water

Date Received: 09/03/16 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141		0.0829	0.0839	1.00	0.111	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.222	U	0.486	0.487	1.00	0.887	pCi/L	09/11/16 20:40	09/23/16 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		40 - 110					09/11/16 20:40	09/23/16 17:15	1
Y Carrier	79.6		40 - 110					09/11/16 20:40	09/23/16 17:15	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	-0.0810	U	0.493	0.494	5.00	0.887	pCi/L		10/04/16 02:31	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-15

Lab Sample ID: 400-126621-16

Date Collected: 09/02/16 11:20

Matrix: Water

Date Received: 09/03/16 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.668		0.198	0.207	1.00	0.184	pCi/L	09/11/16 19:46	10/03/16 11:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.8		40 - 110					09/11/16 19:46	10/03/16 11:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.44	U G	1.12	1.13	1.00	1.77	pCi/L	09/29/16 16:14	10/04/16 16:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					09/29/16 16:14	10/04/16 16:35	1
Y Carrier	88.2		40 - 110					09/29/16 16:14	10/04/16 16:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.11		1.14	1.15	5.00	1.77	pCi/L		10/05/16 10:45	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
G	The Sample MDC is greater than the requested RL.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWA-5

Date Collected: 08/30/16 15:48

Date Received: 09/01/16 09:04

Lab Sample ID: 400-126621-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267892	09/02/16 13:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	271838	09/27/16 06:49	ALS	TAL SL
Total/NA	Prep	PrecSep_0			267897	09/02/16 13:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	270402	09/17/16 14:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272054	09/28/16 01:04	ALS	TAL SL

Client Sample ID: ARGWA-12

Date Collected: 08/30/16 16:00

Date Received: 09/01/16 09:04

Lab Sample ID: 400-126621-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267892	09/02/16 13:06	MCJ	TAL SL
Total/NA	Analysis	9315		1	271838	09/27/16 06:49	ALS	TAL SL
Total/NA	Prep	PrecSep_0			267897	09/02/16 13:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	270402	09/17/16 14:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272054	09/28/16 01:04	ALS	TAL SL

Client Sample ID: ARGWC-7

Date Collected: 08/31/16 09:13

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272746	10/03/16 11:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:13	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWA-13

Date Collected: 08/31/16 10:00

Date Received: 09/02/16 09:08

Lab Sample ID: 400-126621-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272746	10/03/16 11:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:13	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-9

Lab Sample ID: 400-126621-5

Date Collected: 08/31/16 12:06

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272746	10/03/16 11:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:13	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWA-14

Lab Sample ID: 400-126621-6

Date Collected: 08/31/16 12:30

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272746	10/03/16 11:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:13	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWA-3

Lab Sample ID: 400-126621-7

Date Collected: 08/31/16 13:20

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: FB-1

Lab Sample ID: 400-126621-8

Date Collected: 08/31/16 14:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: FERB-1

Lab Sample ID: 400-126621-9

Date Collected: 08/31/16 14:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWC-8

Lab Sample ID: 400-126621-10

Date Collected: 08/31/16 15:44

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: DUP-1

Lab Sample ID: 400-126621-11

Date Collected: 08/31/16 00:00

Matrix: Water

Date Received: 09/02/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWC-16

Lab Sample ID: 400-126621-12

Date Collected: 09/01/16 09:03

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-126621-13

Date Collected: 09/01/16 09:15

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:15	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWC-18

Lab Sample ID: 400-126621-14

Date Collected: 09/01/16 12:55

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:15	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWC-17

Lab Sample ID: 400-126621-15

Date Collected: 09/01/16 14:46

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			269083	09/11/16 20:40	TJT	TAL SL
Total/NA	Analysis	9320		1	271445	09/23/16 17:15	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272837	10/04/16 02:31	ALS	TAL SL

Client Sample ID: ARGWC-15

Lab Sample ID: 400-126621-16

Date Collected: 09/02/16 11:20

Matrix: Water

Date Received: 09/03/16 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			269082	09/11/16 19:46	TJT	TAL SL
Total/NA	Analysis	9315		1	272747	10/03/16 11:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272418	09/29/16 16:14	KKA	TAL SL
Total/NA	Analysis	9320		1	273101	10/04/16 16:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273259	10/05/16 10:45	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Rad

Prep Batch: 267892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total/NA	Water	PrecSep-21	
400-126621-2	ARGWA-12	Total/NA	Water	PrecSep-21	
MB 160-267892/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-267892/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-126317-A-30-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 267897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-1	ARGWA-5	Total/NA	Water	PrecSep_0	
400-126621-2	ARGWA-12	Total/NA	Water	PrecSep_0	
MB 160-267897/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-267897/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-126317-A-30-D DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 269082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-3	ARGWC-7	Total/NA	Water	PrecSep-21	
400-126621-4	ARGWA-13	Total/NA	Water	PrecSep-21	
400-126621-5	ARGWC-9	Total/NA	Water	PrecSep-21	
400-126621-6	ARGWA-14	Total/NA	Water	PrecSep-21	
400-126621-7	ARGWA-3	Total/NA	Water	PrecSep-21	
400-126621-8	FB-1	Total/NA	Water	PrecSep-21	
400-126621-9	FERB-1	Total/NA	Water	PrecSep-21	
400-126621-10	ARGWC-8	Total/NA	Water	PrecSep-21	
400-126621-11	DUP-1	Total/NA	Water	PrecSep-21	
400-126621-12	ARGWC-16	Total/NA	Water	PrecSep-21	
400-126621-13	ARGWC-10	Total/NA	Water	PrecSep-21	
400-126621-14	ARGWC-18	Total/NA	Water	PrecSep-21	
400-126621-15	ARGWC-17	Total/NA	Water	PrecSep-21	
400-126621-16	ARGWC-15	Total/NA	Water	PrecSep-21	
MB 160-269082/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-269082/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-269082/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 269083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-3	ARGWC-7	Total/NA	Water	PrecSep_0	
400-126621-4	ARGWA-13	Total/NA	Water	PrecSep_0	
400-126621-5	ARGWC-9	Total/NA	Water	PrecSep_0	
400-126621-6	ARGWA-14	Total/NA	Water	PrecSep_0	
400-126621-7	ARGWA-3	Total/NA	Water	PrecSep_0	
400-126621-8	FB-1	Total/NA	Water	PrecSep_0	
400-126621-9	FERB-1	Total/NA	Water	PrecSep_0	
400-126621-10	ARGWC-8	Total/NA	Water	PrecSep_0	
400-126621-11	DUP-1	Total/NA	Water	PrecSep_0	
400-126621-12	ARGWC-16	Total/NA	Water	PrecSep_0	
400-126621-13	ARGWC-10	Total/NA	Water	PrecSep_0	
400-126621-14	ARGWC-18	Total/NA	Water	PrecSep_0	
400-126621-15	ARGWC-17	Total/NA	Water	PrecSep_0	
MB 160-269083/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-269083/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Rad (Continued)

Prep Batch: 269083 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 160-269083/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 272418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126621-16	ARGWC-15	Total/NA	Water	PrecSep_0	
MB 160-272418/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-272418/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-272418/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

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

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-267892/1-A
Matrix: Water
Analysis Batch: 271838

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 267892

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04145	U	0.0527	0.0528	1.00	0.0876	pCi/L	09/02/16 13:06	09/27/16 06:49	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	103		40 - 110	09/02/16 13:06	09/27/16 06:49	1				

Lab Sample ID: LCS 160-267892/2-A
Matrix: Water
Analysis Batch: 271838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 267892

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	14.9	19.54		1.88	1.00	0.0896	pCi/L	131	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	84.0		40 - 110	09/02/16 13:06	09/27/16 06:49	1			

Lab Sample ID: 400-126317-A-30-B DU
Matrix: Water
Analysis Batch: 271838

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 267892

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.249		0.2106		0.0865	1.00	0.0971	pCi/L	0.21	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	89.7		40 - 110	09/02/16 13:06	09/27/16 06:49	1				

Lab Sample ID: MB 160-269082/1-A
Matrix: Water
Analysis Batch: 272742

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 269082

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02135	U	0.0652	0.0653	1.00	0.121	pCi/L	09/11/16 19:46	10/03/16 10:59	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	84.0		40 - 110	09/11/16 19:46	10/03/16 10:59	1				

Lab Sample ID: LCS 160-269082/2-A
Matrix: Water
Analysis Batch: 272742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 269082

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	14.8	17.91		1.75	1.00	0.112	pCi/L	121	68 - 137

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: LCS 160-269082/2-A
Matrix: Water
Analysis Batch: 272742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 269082

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.9		40 - 110

Lab Sample ID: LCSD 160-269082/3-A
Matrix: Water
Analysis Batch: 272742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 269082

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	14.8	19.19		1.87	1.00	0.104	pCi/L	130	68 - 137	0.35	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.6		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-267897/1-A
Matrix: Water
Analysis Batch: 270402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 267897

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1127	U	0.355	0.355	1.00	0.610	pCi/L	09/02/16 13:26	09/17/16 14:49	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110	09/02/16 13:26	09/17/16 14:49	1
Y Carrier	84.1		40 - 110	09/02/16 13:26	09/17/16 14:49	1

Lab Sample ID: LCS 160-267897/2-A
Matrix: Water
Analysis Batch: 270402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 267897

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.4	24.65		2.66	1.00	0.669	pCi/L	127	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.0		40 - 110
Y Carrier	78.1		40 - 110

Lab Sample ID: 400-126317-A-30-D DU
Matrix: Water
Analysis Batch: 270402

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 267897

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	1.09		0.5674	U	0.404	1.00	0.626	pCi/L	0.61	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: 400-126317-A-30-D DU
Matrix: Water
Analysis Batch: 270402

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 267897

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	89.7		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: MB 160-269083/1-A
Matrix: Water
Analysis Batch: 271445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 269083

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3915	U	0.353	0.355	1.00	0.568	pCi/L	09/11/16 20:40	09/23/16 17:12	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110	09/11/16 20:40	09/23/16 17:12	1
Y Carrier	91.2		40 - 110	09/11/16 20:40	09/23/16 17:12	1

Lab Sample ID: LCS 160-269083/2-A
Matrix: Water
Analysis Batch: 271445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 269083

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.4	19.42		2.11	1.00	0.577	pCi/L	100	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.9		40 - 110
Y Carrier	91.2		40 - 110

Lab Sample ID: LCSD 160-269083/3-A
Matrix: Water
Analysis Batch: 271445

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 269083

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	19.4	20.74		2.24	1.00	0.571	pCi/L	107	56 - 140	0.30	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.6		40 - 110
Y Carrier	88.2		40 - 110

Lab Sample ID: MB 160-272418/1-A
Matrix: Water
Analysis Batch: 273101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272418

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8233	U G	1.07	1.08	1.00	1.79	pCi/L	09/29/16 16:14	10/04/16 16:34	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

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

Lab Sample ID: MB 160-272418/1-A
Matrix: Water
Analysis Batch: 273101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272418

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	80.9		40 - 110
Y Carrier	83.7		40 - 110

Prepared	Analyzed	Dil Fac
09/29/16 16:14	10/04/16 16:34	1
09/29/16 16:14	10/04/16 16:34	1

Lab Sample ID: LCS 160-272418/2-A
Matrix: Water
Analysis Batch: 273101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272418

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									Unit	Limit
Radium-228	57.9	71.44		7.77	1.00	1.92	pCi/L	123	56 - 140	


Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	81.8		40 - 110
Y Carrier	83.7		40 - 110

Lab Sample ID: LCSD 160-272418/3-A
Matrix: Water
Analysis Batch: 273101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272418

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									Unit	Limit	RER	Limit
Radium-228	57.9	73.41		7.95	1.00	2.04	pCi/L	127	56 - 140	0.13	1	

Carrier	LCSD LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	80.1		40 - 110
Y Carrier	84.5		40 - 110


Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - PLANT ARLWRIGHT - PHASE 2 Site: DISPOSAL UNIT 3		Sampler: ERM. Lab PM: Whitnire, Cheyenne R E-Mail: cheyenne.whitnire@testamericainc.com Carrier Tracking No(s): Job #: Jdf1	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested  400-126621 COC Total Number of Containers:	
Sample Identification ARGWA-5 ARGWA-12		Preservation Codes: M - Hexane N - None O - AsNGO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify) Other:	
Sample Identification ARGWA-5 ARGWA-12		Special Instructions/Note:	
Possible Hazard Identification <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"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Special Instructions/QC Requirements: PLEASE CC: MANA PATRYIA & KRATH MCCOY with RESULTS Method of Shipment:	
Chain of Custody Date/Time: 8/31/16 1555 Date/Time: 8/31/16 1715 Date/Time:		Received by: Received by: [Signature] Received by: [Signature] Received by: [Signature]	
Company: Southern Company Company: Southern Company Company: Southern Company		Company: Southern Company Company: Southern Company Company: Southern Company	
Cooler Temperature: [Blank] Cooler Temperature: [Blank] Cooler Temperature: [Blank]		Cooler Temperature: [Blank] Cooler Temperature: [Blank] Cooler Temperature: [Blank]	
Custody Seal No.: Δ Yes Δ No		Custody Seal No.: Δ Yes Δ No	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR- PLANT AIRWASH - PHASE 2 Site: DISPOSAL UNIT 3		Lab PM: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): 400-57303-24790.1 Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested Radium 226 & 228 - SW-846 9315 & 9320 Metals Appendix III & IV - EPA 6020 & EPA 7470 TDS - SM 2640C ; Cl,F,S04 - EPA 300 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, BT=Tissue, AF=Air) Preservation Code		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: PLEASE CC: MARIO PARDILLA & HEATH MCCOY WITH RESULTS	
Possible Hazard Identification <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"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: Relinquished by: Campy Mueda Date/Time: 9/11/16 17:32 Company: JTA Relinquished by: [Signature] Date/Time: 9/11/16 18:30 Company: JTA Relinquished by: [Signature] Date/Time: 9/11/16 17:22 Company: JTA Relinquished by: [Signature] Date/Time: 0908 Company: JTA Cooler Temperature(s) °C and Other Remarks: 5.4°C JRC 6	



Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright - Phase 2 Site: Disposal Unit #3		Sampler: ERM- J. Morrison, C. Hurdle, J. Worthen Lab Pmt: Whitmire, Cheyenne R Phone: 404-408-6916 E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): Lab Pmt: 1 of 1 Job #:				
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested  400-126621 COC						
Sample Identification ARGWC-16 ARGWC-10 ARGWC-18 ARGWC-17		Sample Date 9/1/16 9/1/16 9/1/16 9/1/16	Sample Time 09:03 09:15 12:55 14:46	Sample Type (C=Comp, G=grab) G G G G	Matrix (W=water, S=solid, O=wastefoil, BT=tissue, A=air) Water Water Water Water	Field Filtered Sample (Yes or No) TDS - SM 2640C; Cl, F, SO4 - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	Special Instructions/Note: Total Number of Containers:
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Polson B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements: cc: Maria Padilla and Heath McCorkle on results				
Empty Kit Relinquished by:		Date:		Method of Shipment:				
Relinquished by: <i>Willie</i>		Date/Time: 9/2/16 1357		Received by: <i>[Signature]</i> Company:				
Relinquished by:		Date/Time: 9/2/16 1600		Received by: <i>[Signature]</i> Company:				
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i> Company:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.966 g/L				


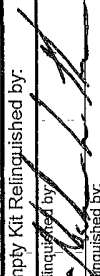


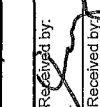
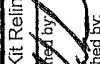
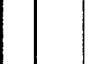


Chain of Custody Record

Client Information Client/Contact: JRM - J. R. McLaughlin Phone: 704 408-6916 Company: Southern Company		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-57303-24790.1 Page: 1 of 1 Job #:	
Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested TDS - SM 2540C; Cl ₂ F ₂ SO ₄ - EPA 300 Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9316 & 9320 Total Number of Containers:	
Site: CCR - PLANT ARKWRIGHT - PHAS 2 DISPOSAL UNIT 2		Sample Date: 9/2/16 Sample Time: 1120 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, AS=Air): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification: ARGUC-15		Sample Date: 9/2/16 Sample Time: 1120 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, AS=Air): W		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: Please cc: MARY PADILLA & KATH MCGOWAN WITH RESULTS	
Possible Hazard Identification <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"/> Radiological		Date: 9/2/16 Time: 16:34 Company: ERM		Date/Time: 9/2/16 Time: 16:34 Company: ERM	
Relinquished by: [Signature] Date/Time: 9/2/16 Time: 16:34 Company: ERM		Relinquished by: [Signature] Date/Time: 9/13/16 Time: 09:32 Company: TH-16W		Relinquished by: [Signature] Date/Time: 9/13/16 Time: 09:32 Company: TH-16W	
Relinquished by: [Signature] Date/Time: 9/2/16 Time: 16:34 Company: ERM		Relinquished by: [Signature] Date/Time: 9/13/16 Time: 09:32 Company: TH-16W		Relinquished by: [Signature] Date/Time: 9/13/16 Time: 09:32 Company: TH-16W	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Chain of Custody Record

Client Information Client/Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State/Zip: GA, 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR - PLANT AIRWASH - PHASE 2 Site: DISPOSAL UNIT 3		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Carrier Tracking No(s): COC No: 400-57303-24790.1 Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested Metals Appendix III & IV - EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 TDS - SM 2540C ; Cl ₂ , F ₂ , SO ₄ - EPA 300 Halogenated (MS/MS/MS/NO) Pesticides (MS/MS/MS/NO)	
Sample Identification AR6WC-15 (FILLER) Sample Date: 9/2/16 Sample Time: 1120 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air): W		Special Instructions/Note: CALL WAST MPT. GUAZ NOT COLLECT 1000 SAMPLE  400-126621 COC	
Possible Hazard Identification <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"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: RPA# CC: MARGA PAINULA 9 PATA McALISTER W IN RESULTS			
Relinquished by:  Date: 9/2/16 16:34 Company: RRM		Relinquished by:  Date: 9/2/16 16:34 Company: TR	
Relinquished by:  Date: 9/2/16 Company:		Relinquished by:  Date: 9/2/16 Company:	
Relinquished by:  Date: 9/2/16 Company:		Relinquished by:  Date: 9/2/16 Company:	
Cooler Temperature(s) °C and Other Remarks: 0.0°C IR6			

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-126621-2
SDG Number: Disposal Unit 3 Phase 2

Login Number: 126621

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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.	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	2.2°C IR-6, 5.6°C , 0.9°C , 0.0°C IR-6
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-126621-2
SDG: Disposal Unit 3 Phase 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2016-08-31 13:18:39

Project Information:

Operator Name C. Hurdle
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 37.29 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 35.45 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 27.5 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	12:54:40	15900.21	23.25	6.10	87.14	11.10	35.56	6.27	107.17
Last 5	12:59:40	16200.21	23.39	6.10	86.75	10.21	35.56	6.25	108.04
Last 5	13:04:40	16500.21	24.83	6.09	90.80	9.28	35.56	6.27	105.25
Last 5	13:09:40	16800.21	24.63	6.09	91.36	8.61	35.56	6.35	106.07
Last 5	13:14:40	17100.21	24.69	6.09	91.36	9.29	35.56	6.24	106.65
Variance 0			1.43	-0.01	4.05			0.02	-2.79
Variance 1			-0.20	0.00	0.57			0.08	0.82
Variance 2			0.06	-0.00	-0.00			-0.12	0.58

Notes

Stable for 3 hours and 3 consecutive turbidity readings below 10.00 NTU

Grab Samples

ARGWA-3
Sample Time 1320

Product Name: Low-Flow System

Date: 2016-08-31 13:18:39

Project Information:

Operator Name C. Hurdle
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 37.29 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 35.45 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.11 in *+ 1.32 in*
Total Volume Pumped 27.5 L *21.16*

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	12:54:40	15900.21	23.25	6.10	87.14	11.10	35.56	6.27	107.17
Last 5	12:59:40	16200.21	23.39	6.10	86.75	10.21	35.56	6.25	108.04
Last 5	13:04:40	16500.21	24.83	6.09	90.80	9.28	35.56	6.27	105.25
Last 5	13:09:40	16800.21	24.63	6.09	91.36	8.61	35.56	6.35	106.07
Last 5	13:14:40	17100.21	24.69	6.09	91.36	9.29	35.56	6.24	106.65
Variance 0			1.43	-0.01	4.05			0.02	-2.79
Variance 1			-0.20	0.00	0.57			0.08	0.82
Variance 2			0.06	-0.00	-0.00			-0.12	0.58

Notes

Stable for 3 hours and 3 consecutive turbidity readings below 10.00 NTU

Grab Samples

ARGWA-3
Sample Time 1320

Product Name: Low-Flow System

Date: 2016-08-30 16:30:59

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 24.25 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 17.25 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	15:24:57	3299.99	20.35	6.10	79.94	1.04	24.10	5.94	76.55
Last 5	15:29:57	3599.99	20.39	6.11	78.74	0.97	24.05	5.91	75.57
Last 5	15:34:57	3899.99	20.53	6.11	79.22	0.88	24.10	5.90	74.77
Last 5	15:39:57	4199.99	20.66	6.11	78.53	1.25	24.10	5.91	74.17
Last 5	15:44:57	4499.95	20.73	6.07	78.09	0.70	24.10	5.90	76.73
Variance 0			0.13	-0.00	0.48			-0.01	-0.80
Variance 1			0.13	0.00	-0.69			0.01	-0.60
Variance 2			0.07	-0.04	-0.44			-0.01	2.56

Notes

Purged @ 250ml/min. Sampled @ 250ml/min.

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-30 15:56:07

Project Information:

Operator Name Jim Morrison
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 33 ft

Pump placement from TOC 27 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.35 ft
Screen Length 10 ft
Depth to Water 17.34 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 4.5 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	15:31:54	1500.02	21.82	6.88	175.78	8.20	17.68	3.72	88.86
Last 5	15:36:54	1800.01	22.04	6.87	173.95	5.33	17.68	3.79	86.99
Last 5	15:41:54	2099.98	22.09	6.86	175.05	4.12	17.69	3.80	85.97
Last 5	15:46:54	2399.98	22.29	6.85	175.22	4.82	17.69	3.75	85.16
Last 5	15:51:54	2699.98	22.34	6.82	175.67	4.22	17.69	3.73	84.60
Variance 0			0.04	-0.01	1.10			0.01	-1.02
Variance 1			0.20	-0.01	0.17			-0.05	-0.82
Variance 2			0.05	-0.03	0.46			-0.03	-0.55

Notes

Parameters stable at 1551. Purged at 100 ml/min. Sample at at 100 ml/min

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-31 09:58:41

Project Information:

Operator Name Jim Morrison
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 46 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.54 ft
Screen Length 10 ft
Depth to Water 25.23 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2953174 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	09:35:13	899.99	19.88	6.91	1330.00	7.38	25.53	0.99	105.33
Last 5	09:40:13	1199.98	20.00	6.77	1245.01	6.83	25.53	0.95	101.46
Last 5	09:45:13	1499.99	20.08	6.71	1203.43	3.89	23.53	0.93	98.20
Last 5	09:50:13	1799.97	20.13	6.68	1208.75	2.10	23.53	0.89	96.50
Last 5	09:55:13	2099.97	20.25	6.67	1214.15	--	--	0.82	95.28
Variance 0			0.09	-0.06	-41.58			-0.02	-3.26
Variance 1			0.04	-0.03	5.32			-0.04	-1.70
Variance 2			0.13	-0.01	5.40			-0.07	-1.22

Notes

Purged and sampled at 100 ml/min. Stable at 0955. Sample at 1000.

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-31 12:29:00

Project Information:

Operator Name Jim Morrison
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 59 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 43.6 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3533419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 38.64 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	12:01:45	1800.01	24.55	7.52	909.31	1.86	46.09	0.41	-60.20
Last 5	12:06:45	2100.00	24.27	7.53	888.20	2.44	46.38	0.39	-67.25
Last 5	12:11:45	2400.00	25.02	7.56	880.88	2.53	46.65	0.40	-71.61
Last 5	12:16:45	2700.00	26.20	7.56	880.60	3.80	46.77	0.43	-76.33
Last 5	12:21:45	2999.93	27.99	7.55	880.71	1.63	46.82	0.48	-80.24
Variance 0			0.75	0.03	-7.33			0.00	-4.35
Variance 1			1.17	-0.00	-0.28			0.03	-4.72
Variance 2			1.79	-0.01	0.11			0.05	-3.91

Notes

Parameters stable at 1221. Purge and sample at 100 ml/min.

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-31 12:29:00

Project Information:

Operator Name Jim Morrison
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 59 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 43.6 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3533419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown ~~3.6 in~~ *38.64 in*
Total Volume Pumped *91.16* 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	12:01:45	1800.01	24.55	7.52	909.31	1.86	46.09	0.41	-60.20
Last 5	12:06:45	2100.00	24.27	7.53	888.20	2.44	46.38	0.39	-67.25
Last 5	12:11:45	2400.00	25.02	7.56	880.88	2.53	46.65	0.40	-71.61
Last 5	12:16:45	2700.00	26.20	7.56	880.60	3.80	46.77	0.43	-76.33
Last 5	12:21:45	2999.93	27.99	7.55	880.71	1.63	46.82	0.48	-80.24
Variance 0			0.75	0.03	-7.33			0.00	-4.35
Variance 1			1.17	-0.00	-0.28			0.03	-4.72
Variance 2			1.79	-0.01	0.11			0.05	-3.91

Notes

Parameters stable at 1221. Purge and sample at 100 ml/min.

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-31 10:37:23

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte 2020WE

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 41 ft

Pump placement from TOC 8 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.29 ft
Screen Length 10 ft
Depth to Water 25.43 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2730004 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	08:55:28	300.08	20.20	5.92	201.22	1.63	25.65	2.60	77.15
Last 5	09:00:27	600.02	20.15	5.97	203.19	1.64	25.65	2.60	75.30
Last 5	09:05:27	900.02	20.36	5.97	202.53	2.59	25.65	2.86	75.22
Last 5	09:10:27	1200.02	20.89	5.98	201.08	1.17	25.65	2.82	74.27
Last 5									
Variance 0			-0.04	0.04	1.97			-0.00	-1.84
Variance 1			0.21	0.00	-0.66			0.26	-0.09
Variance 2			0.52	0.01	-1.45			-0.04	-0.94

Notes

Purge@ 200ml/min Sampled @ 0913. Collected Dup-1 from ARGWC-7

Grab Samples

ARGWC-7

Sampled @ 0930

Dup-1

Duplicate of ARGWC-7

Product Name: Low-Flow System

Date: 2016-08-31 10:37:23

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMotte 2020WE

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 41 ft

Pump placement from TOC 8 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.29 ft
Screen Length 10 ft
Depth to Water 25.43 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2730004 L
Calculated Sample Rate 300 sec
Stabilization Drawdown *ALR 9/1/16 0 in 2.64 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	08:55:28	300.08	20.20	5.92	201.22	1.63	25.65	2.60	77.15
Last 5	09:00:27	600.02	20.15	5.97	203.19	1.64	25.65	2.60	75.30
Last 5	09:05:27	900.02	20.36	5.97	202.53	2.59	25.65	2.86	75.22
Last 5	09:10:27	1200.02	20.89	5.98	201.08	1.17	25.65	2.82	74.27
Last 5									
Variance 0			-0.04	0.04	1.97			-0.00	-1.84
Variance 1			0.21	0.00	-0.66			0.26	-0.09
Variance 2			0.52	0.01	-1.45			-0.04	-0.94

Notes

Purge@ 200ml/min Sampled @ 0913. Collected Dup-1 from ARGWC-7

Grab Samples

ARGWC-7

Sampled @ 0930

Dup-1

Duplicate of ARGWC-7

Product Name: Low-Flow System

Date: 2016-08-31 16:33:19

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMontte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 48 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.23 ft
Screen Length 10 ft
Depth to Water 27.1 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2328295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 1.8 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	15:23:11	1500.02	22.34	6.60	464.82	0.63	27.25	0.19	84.29
Last 5	15:28:11	1800.02	22.13	6.60	464.59	0.61	27.25	0.19	82.70
Last 5	15:33:11	2099.97	21.84	6.62	466.13	0.53	27.25	0.19	80.03
Last 5	15:38:11	2399.97	21.61	6.62	465.67	0.46	27.25	0.18	78.77
Last 5	15:43:11	2699.97	21.48	6.62	464.82	--	--	0.18	77.08
Variance 0			-0.30	0.02	1.53			0.00	-2.67
Variance 1			-0.22	-0.00	-0.46			-0.01	-1.26
Variance 2			-0.13	0.01	-0.85			-0.00	-1.69

Notes

Purged @200 ml/min. Sampled @200ml/min.

Grab Samples

ARGWC-8
Sampled @ 200ml/min @ 15:44

Product Name: Low-Flow System

Date: 2016-08-31 16:33:19

Project Information:

Operator Name John Worthen
 Company Name ERM
 Project Name Disposal Facility 3
 Site Name Plant Arkwright
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 440275
 Turbidity Make/Model LaMontte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
 Tubing Type LDPE
 Tubing Diameter 0.17 in
 Tubing Length 48 ft
 32 ft
 ALR 9/1/16

Pump placement from TOC

ALR 25 ft 38 ft
 9/1/16

Well Information:

Well ID ARGWC-8
 Well diameter 2 in
 Well Total Depth 43.23 ft
 Screen Length 10 ft
 Depth to Water 27.1 ft

Pumping Information:

Final Pumping Rate 200 mL/min
 Total System Volume 0.2328295 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown ALR 0 in 1.80 in
 9/1/16
 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	15:23:11	1500.02	22.34	6.60	464.82	0.63	27.25	0.19	84.29
Last 5	15:28:11	1800.02	22.13	6.60	464.59	0.61	27.25	0.19	82.70
Last 5	15:33:11	2099.97	21.84	6.62	466.13	0.53	27.25	0.19	80.03
Last 5	15:38:11	2399.97	21.61	6.62	465.67	0.46	27.25	0.18	78.77
Last 5	15:43:11	2699.97	21.48	6.62	464.82	--	--	0.18	77.08
Variance 0			-0.30	0.02	1.53			0.00	-2.67
Variance 1			-0.22	-0.00	-0.46			-0.01	-1.26
Variance 2			-0.13	0.01	-0.85			-0.00	-1.69

Notes

Purged @200 ml/min. Sampled @200ml/min.

Grab Samples

ARGWC-8
 Sampled @ 200ml/min @ 15:44

Product Name: Low-Flow System

Date: 2016-08-31 12:54:17

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMontte

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.09 ft
Screen Length 10 ft
Depth to Water 22.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	11:45:08	300.03	22.18	6.11	85.22	5.72	22.73	4.18	81.73
Last 5	11:50:08	600.02	22.22	6.11	85.45	5.53	22.73	4.14	80.71
Last 5	11:55:08	900.08	22.27	6.10	85.32	4.86	22.73	4.11	80.38
Last 5	12:00:08	1200.06	22.05	6.11	85.81	2.14	22.73	4.04	79.51
Last 5	12:05:08	1499.99	22.09	6.10	85.42	3.42	22.73	4.01	78.20
Variance 0			0.05	-0.01	-0.13			-0.04	-0.33
Variance 1			-0.22	0.01	0.49			-0.06	-0.87
Variance 2			0.04	-0.00	-0.39			-0.03	-1.30

Notes

Purged @. 200ml/min. Sampled @ 200ml/min @ 12:06

Grab Samples

ARGWC-9
Sampled @ 200 ml/min @12:06

Product Name: Low-Flow System

Date: 2016-08-31 12:54:17

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMontte

Pump Information:

Pump Model/Type Alexis Peristalic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC

-7 ft 33 ft
ALL
9/1/16

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.09 ft
Screen Length 10 ft
Depth to Water 22.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown *ALL* 0 in *0.96 in*
Total Volume Pumped *9/1/16* 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	11:45:08	300.03	22.18	6.11	85.22	5.72	22.73	4.18	81.73
Last 5	11:50:08	600.02	22.22	6.11	85.45	5.53	22.73	4.14	80.71
Last 5	11:55:08	900.08	22.27	6.10	85.32	4.86	22.73	4.11	80.38
Last 5	12:00:08	1200.06	22.05	6.11	85.81	2.14	22.73	4.04	79.51
Last 5	12:05:08	1499.99	22.09	6.10	85.42	3.42	22.73	4.01	78.20
Variance 0			0.05	-0.01	-0.13			-0.04	-0.33
Variance 1			-0.22	0.01	0.49			-0.06	-0.87
Variance 2			0.04	-0.00	-0.39			-0.03	-1.30

Notes

Purged @. 200ml/min. Sampled @ 200ml/min @ 12:06

Grab Samples

ARGWC-9
Sampled @ 200 ml/min @12:06



GROUNDWATER SAMPLING LOG SHEET

Client: GPC Project No.: 0337351 Sampling Date: 8-31-16
 Site: PIANT ARKWRIGHT Location: Disposal Facility 3 Sampler's Name: C. Hurdle
 Well ID: ARGWL-10 Pump Type/Model: Bladder Sample Collection Time: _____
 Total Depth (ft): 38.35 Tubing Material: LDPE Sample Purge Rate (L/min): _____
 Depth to Water (ft): 23.0 Pump Intake Depth (ft): 33.35 Sample ID: _____
 Well Diameter (in): 2 Start/Stop Purge Time: 1057 Laboratory Analyses: _____
 Well Volume (gal) = 0.041d³h: 2.52 Purge Rate (L/min): 0.250 QA/QC Collected? _____
 Well Volume (L) = gal * 3.785: 9.53 Total Purge Volume (L): 31.75 QA/QC I.D. _____
 d = well diameter (inches) h = length of water column (feet)
 Purge Method: Low-Flow Well Volume Other: _____
 Well Type: Flush Stick Up
 Well Lock: Yes No
 Well Bolted: Yes No Bolts Needed: _____
 Well Cap Condition: Good Replace Other _____
 Well Tag Present: Yes No Water in Vault: Yes No
 All sample containers requiring chemical preservation properly preserved prior to demob from well? Yes No

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H ₂ O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1702	20.58	106.6	7.08	6.43	94.6		250	1.25	23.23	Very Brown & Turbid
1707	20.71	107.6	5.92	6.33	91.7	898	200	2.25	23.19	
1717	20.79	106.0	5.14	6.28	89.5		150	3.75	23.19	
Data in Field Notes										- Stopped SmartTroll to wait for turbidity to decrease
1745	20.16	105.8	4.46	6.16	94.5	47.9	250	25.50	23.24	
1750	19.88	105.9	4.42	6.17	89.9	48.9	250	26.75	23.24	- Stable
1755	19.80	105.5	4.33	6.16	87.3	28.6	250	28.00	23.24	
1800	19.78	105.3	4.30	6.16	86.16	26.5	250	29.25	23.24	postponing Effort to tomorrow
1805	19.68	105.0	4.24	6.16	86.2	32.5	250	30.50	23.24	
1810	19.72	104.5	4.17	6.16	87.5	44.4	250	31.75	23.24	
Stabilizing Criteria ^{4, 5}										
		+/- 5%	0.2 mg/L or 10% whichever is greater ⁽⁹⁾	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

(1) - Maximum purge rate of 250 mL/min
 (2) - Sample rate to be between 100 mL/min and 250 mL/min
 (3) - Collect sample from pump discharge without tubing contacting sample container
 (4) - Field parameter measurements to be recorded every 3 to 5 minutes.
 (5) - Stabilization criteria based on three most recent consecutive measurements.
 (6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
 (7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
 (8) - Preserve all samples as appropriate immediately following collection
 (9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By: _____
 Date: _____
 Purge Log QA/QC'd By: _____
 Date: _____

Product Name: Low-Flow System

Date: 2016-09-02 11:19:58

Project Information:

Operator Name Jim Morrison
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364452
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 30.64 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.390854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 69 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	10:46:58	2399.98	20.39	6.36	182.92	31.20	34.62	4.93	99.55
Last 5	10:51:58	2699.98	20.48	6.34	185.49	43.90	35.14	4.95	99.19
Last 5	10:57:02	3004.04	20.64	6.40	188.65	68.20	35.73	5.10	97.54
Last 5	11:02:02	3304.02	20.63	6.46	191.61	52.60	36.25	5.21	95.55
Last 5	11:07:02	3603.98	20.61	6.54	200.22	59.70	36.70	5.38	93.08
Variance 0			0.16	0.05	3.16			0.15	-1.65
Variance 1			-0.00	0.06	2.96			0.11	-2.00
Variance 2			-0.02	0.08	8.61			0.17	-2.46

Notes

9-1-16 22L purged, 9-2-16 1007 start purge@100mL/min, 1057 decrease purge rate to 80mL/min, 1042 all parameters stable, 1120 sampled@100mL/min

Grab Samples

ARGWC-15

Sampled at 1120 unfiltered-.5gal, 1L, 250mL

ARGWC-15

Sampled at 1120 filtered- 1L, 250mL

Product Name: Low-Flow System

Date: 2016-09-01 09:50:40

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMontte 2020 we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 29 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.42 ft
Screen Length 10 ft
Depth to Water 21.9 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	08:42:08	600.02	20.31	5.47	335.77	0.17	21.90	0.31	150.28
Last 5	08:47:08	900.01	20.26	5.47	336.00	0.30	21.90	0.30	158.15
Last 5	08:52:08	1200.01	20.36	5.48	337.32	0.22	21.90	0.31	163.52
Last 5	08:57:08	1500.01	20.39	5.49	336.87	0.20	21.90	0.32	168.03
Last 5	09:02:09	1801.01	20.36	5.49	336.64	--	--	0.30	172.67
Variance 0			0.10	0.01	1.31			0.01	5.37
Variance 1			0.03	0.01	-0.45			0.01	4.51
Variance 2			-0.02	0.01	-0.23			-0.02	4.64

Notes

Purged @200 ml/min and sampled @200ml/min

Grab Samples

ARGWC-16
Sampled @200ml/min @0903

Product Name: Low-Flow System

Date: 2016-09-01 09:50:40

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model LaMontte 2020 we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length ~~30 ft~~ 39 ft *ALC 9/1/16*

Pump placement from TOC

~~23 ft~~ 29 ft *ALC 9/1/16*

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.42 ft
Screen Length 10 ft
Depth to Water 21.9 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	08:42:08	600.02	20.31	5.47	335.77	0.17	21.90	0.31	150.28
Last 5	08:47:08	900.01	20.26	5.47	336.00	0.30	21.90	0.30	158.15
Last 5	08:52:08	1200.01	20.36	5.48	337.32	0.22	21.90	0.31	163.52
Last 5	08:57:08	1500.01	20.39	5.49	336.87	0.20	21.90	0.32	168.03
Last 5	09:02:09	1801.01	20.36	5.49	336.64	--	--	0.30	172.67
Variance 0			0.10	0.01	1.31			0.01	5.37
Variance 1			0.03	0.01	-0.45			0.01	4.51
Variance 2			-0.02	0.01	-0.23			-0.02	4.64

Notes

Purged @200 ml/min and sampled @200ml/min

Grab Samples

ARGWC-16
Sampled @200ml/min @0903

Product Name: Low-Flow System

Date: 2016-09-01 14:54:12

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 29 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 34 ft
Screen Length 10 ft
Depth to Water 22.93 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.42 in
Total Volume Pumped 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	14:25:25	14113.83	24.60	5.52	236.25	0.13	23.35	0.27	68.65
Last 5	14:30:27	14415.83	25.27	5.51	230.87	0.66	23.35	0.20	67.72
Last 5	14:35:27	14715.83	25.06	5.53	238.06	0.11	23.35	0.21	67.95
Last 5	14:40:34	15022.83	25.10	5.53	235.53	0.22	23.35	0.20	67.55
Last 5	14:45:34	15322.77	25.46	5.52	235.37	0.22	23.35	0.24	66.70
Variance 0			-0.21	0.02	7.19			0.01	0.23
Variance 1			0.04	0.00	-2.53			-0.01	-0.40
Variance 2			0.36	-0.02	-0.16			0.05	-0.86

Notes

Purged@ 100ml/min Sampled @ 100ml/min @ 14:46

Grab Samples

ARGWC-17
Sampled @100ml/min @ 14:46

Product Name: Low-Flow System

Date: 2016-09-01 14:54:12

Project Information:

Operator Name John Worthen
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440275
Turbidity Make/Model

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length ~~28 ft~~ 39 ft
ALR 9/1/16

Pump placement from TOC

~~20 ft~~ ALR
28 ft 9/1/16

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 34 ft
Screen Length 10 ft
Depth to Water 22.93 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2149758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown ~~0 in~~ 0.42 in
ALR 9/1/16
Total Volume Pumped 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	14:25:25	14113.83	24.60	5.52	236.25	0.13	23.35	0.27	68.65
Last 5	14:30:27	14415.83	25.27	5.51	230.87	0.66	23.35	0.20	67.72
Last 5	14:35:27	14715.83	25.06	5.53	238.06	0.11	23.35	0.21	67.95
Last 5	14:40:34	15022.83	25.10	5.53	235.53	0.22	23.35	0.20	67.55
Last 5	14:45:34	15322.77	25.46	5.52	235.37	0.22	23.35	0.24	66.70
Variance 0			-0.21	0.02	7.19			0.01	0.23
Variance 1			0.04	0.00	-2.53			-0.01	-0.40
Variance 2			0.36	-0.02	-0.16			0.05	-0.86

Notes

Purged@ 100ml/min Sampled @ 100ml/min @ 14:46

Grab Samples

ARGWC-17
Sampled @100ml/min @ 14:46

Product Name: Low-Flow System

Date: 2016-09-01 12:56:21

Project Information:

Operator Name C. Hurdle
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 45.65 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 29.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.36 in
Total Volume Pumped 26.25 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			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	12:31:13	6605.09	21.92	6.19	594.84	5.31	29.95	0.07	27.72
Last 5	12:36:13	6905.09	21.86	6.19	599.74	5.13	29.95	0.07	28.20
Last 5	12:41:13	7205.09	22.44	6.19	596.15	4.71	29.95	0.09	36.15
Last 5	12:46:13	7505.09	22.40	6.18	603.42	4.00	29.95	0.07	32.76
Last 5	12:51:13	7805.09	22.31	6.19	601.06	3.86	29.95	0.07	32.21
Variance 0			0.58	0.00	-3.59			0.02	7.95
Variance 1			-0.04	-0.01	7.27			-0.02	-3.39
Variance 2			-0.09	0.00	-2.36			-0.00	-0.55

Notes

Grab Samples

ARGWC-18
Sample Time 1255

Product Name: Low-Flow System

Date: 2016-09-01 12:56:21

Project Information:

Operator Name C. Hurdle
Company Name ERM
Project Name Disposal Facility 3
Site Name Plant Arkwright
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 45.65 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 29.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.78 in
Total Volume Pumped 26.25 L

*Actual
9/1/16* 0.78 in *ft / 9.36 in*

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	12:31:13	6605.09	21.92	6.19	594.84	5.31	29.95	0.07	27.72
Last 5	12:36:13	6905.09	21.86	6.19	599.74	5.13	29.95	0.07	28.20
Last 5	12:41:13	7205.09	22.44	6.19	596.15	4.71	29.95	0.09	36.15
Last 5	12:46:13	7505.09	22.40	6.18	603.42	4.00	29.95	0.07	32.76
Last 5	12:51:13	7805.09	22.31	6.19	601.06	3.86	29.95	0.07	32.21
Variance 0			0.58	0.00	-3.59			0.02	7.95
Variance 1			-0.04	-0.01	7.27			-0.02	-3.39
Variance 2			-0.09	0.00	-2.36			-0.00	-0.55

Notes

Grab Samples

ARGWC-18
Sample Time 1255



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZJ0700

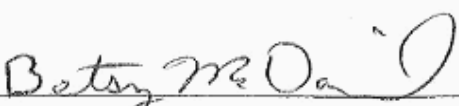
November 02, 2016

Project: CCR Event

Project #: Plant Arkwright

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2016

ANALYTICAL REPORT FOR SAMPLES

<u>Sample ID</u>	<u>Laboratory ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
ARGWA-12	AZJ0700-01	Ground Water	10/24/16 18:10	10/25/16 15:35



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2016

Report No.: AZJ0700

Project: CCR Event

Client ID: ARGWA-12

Lab Number ID: AZJ0700-01

Date/Time Sampled: 10/24/2016 6:10:00PM

Date/Time Received: 10/25/2016 3:35:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	136	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	12	0.25	0.01	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 07:47	6100701	RNB
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 07:47	6100701	RNB
Sulfate	11	1.0	0.05	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 07:47	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Barium	0.0674	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 15:22	6100710	CSW
Boron	0.0406	0.100	0.0064	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Calcium	10.4	2.50	0.155	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 15:22	6100710	CSW
Chromium	0.0011	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:51	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 15:22	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 13:11	6100740	MTC



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November 02, 2016

Report No.: AZJ0700

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100829 - SM 2540 C											
Blank (6100829-BLK1)						Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100829-BS1)						Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	377	25	10	mg/L	400.00		94	84-108			
Duplicate (6100829-DUP1)						Source: AZJ0696-02RE1 Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	674	25	10	mg/L		647			4	10	
Duplicate (6100829-DUP2)						Source: AZJ0700-01RE1 Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	141	25	10	mg/L		136			4	10	



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November 02, 2016

Report No.: AZJ0700

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100701 - EPA 300.0											
Blank (6100701-BLK1)						Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6100701-BS1)						Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	10.9	0.25	0.01	mg/L	10.010		108	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.020		108	90-110			
Sulfate	10.8	1.0	0.05	mg/L	10.020		108	90-110			
Matrix Spike (6100701-MS1)						Source: AZJ0696-01 Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	84.1	0.25	0.01	mg/L	10.010	83.3	7	90-110			QM-02
Fluoride	8.55	0.30	0.02	mg/L	10.020	0.06	85	90-110			QM-05
Sulfate	147	1.0	0.05	mg/L	10.020	151	NR	90-110			QM-02
Matrix Spike (6100701-MS2)						Source: AZJ0697-03 Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	14.6	0.25	0.01	mg/L	10.010	5.18	94	90-110			
Fluoride	10.0	0.30	0.02	mg/L	10.020	0.13	99	90-110			
Sulfate	196	1.0	0.05	mg/L	10.020	194	18	90-110			QM-02
Matrix Spike Dup (6100701-MSD1)						Source: AZJ0696-01 Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	84.2	0.25	0.01	mg/L	10.010	83.3	9	90-110	0.2	15	QM-02
Fluoride	9.63	0.30	0.02	mg/L	10.020	0.06	96	90-110	12	15	
Sulfate	146	1.0	0.05	mg/L	10.020	151	NR	90-110	0.3	15	QM-02



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Report No.: AZJ0700

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Blank (6100710-BLK1)						Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100710-BS1)						Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000		110	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.08	0.100	0.0064	mg/L	1.0000		108	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.08	0.500	0.0311	mg/L	1.0000		108	80-120			
Chromium	0.108	0.0100	0.0009	mg/L	0.10000		108	80-120			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Copper	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Lead	0.101	0.0050	0.0001	mg/L	0.10000		101	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.101	0.0050	0.0006	mg/L	0.10000		101	80-120			
Selenium	0.113	0.0100	0.0010	mg/L	0.10000		113	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000		108	80-120			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000		106	80-120			
Lithium	0.108	0.0500	0.0021	mg/L	0.10000		108	80-120			



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Attention: Mr. Joju Abraham

November 02, 2016

Report No.: AZJ0700

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Matrix Spike (6100710-MS1)			Source: AZJ0696-05			Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	0.113	0.0030	0.0008	mg/L	0.10000	ND	113	75-125			
Arsenic	0.118	0.0050	0.0016	mg/L	0.10000	0.0058	112	75-125			
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0208	105	75-125			
Beryllium	0.0942	0.0150	0.0004	mg/L	0.10000	0.0005	94	75-125			
Boron	15.6	0.500	0.0321	mg/L	1.0000	13.7	199	75-125			QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	0.0002	101	75-125			
Calcium	574	50.0	3.11	mg/L	1.0000	564	953	75-125			QM-02
Chromium	0.109	0.0100	0.0009	mg/L	0.10000	ND	109	75-125			
Cobalt	0.129	0.0100	0.0005	mg/L	0.10000	0.0253	103	75-125			
Copper	0.0950	0.0050	0.0005	mg/L	0.10000	ND	95	75-125			
Lead	0.0922	0.0050	0.0001	mg/L	0.10000	0.0016	91	75-125			
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125			
Nickel	0.105	0.0050	0.0006	mg/L	0.10000	0.0063	98	75-125			
Selenium	0.130	0.0100	0.0010	mg/L	0.10000	0.0135	116	75-125			
Silver	0.0937	0.0100	0.0005	mg/L	0.10000	ND	94	75-125			
Thallium	0.0937	0.0010	0.0002	mg/L	0.10000	0.0004	93	75-125			
Vanadium	0.113	0.0100	0.0071	mg/L	0.10000	ND	113	75-125			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000	0.0054	103	75-125			
Lithium	0.105	0.250	0.0103	mg/L	0.10000	ND	105	75-125			J
Matrix Spike Dup (6100710-MSD1)			Source: AZJ0696-05			Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	ND	110	75-125	2	20	
Arsenic	0.114	0.0050	0.0016	mg/L	0.10000	0.0058	108	75-125	3	20	
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0208	105	75-125	0.01	20	
Beryllium	0.0949	0.0150	0.0004	mg/L	0.10000	0.0005	94	75-125	0.7	20	
Boron	15.6	0.500	0.0321	mg/L	1.0000	13.7	192	75-125	0.4	20	QM-02
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000	0.0002	100	75-125	1	20	
Calcium	566	50.0	3.11	mg/L	1.0000	564	146	75-125	1	20	QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125	2	20	
Cobalt	0.127	0.0100	0.0005	mg/L	0.10000	0.0253	102	75-125	1	20	
Copper	0.0927	0.0050	0.0005	mg/L	0.10000	ND	93	75-125	2	20	
Lead	0.0898	0.0050	0.0001	mg/L	0.10000	0.0016	88	75-125	3	20	
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0063	98	75-125	0.8	20	
Selenium	0.124	0.0100	0.0010	mg/L	0.10000	0.0135	110	75-125	5	20	
Silver	0.0921	0.0100	0.0005	mg/L	0.10000	ND	92	75-125	2	20	
Thallium	0.0914	0.0010	0.0002	mg/L	0.10000	0.0004	91	75-125	2	20	
Vanadium	0.111	0.0100	0.0071	mg/L	0.10000	ND	111	75-125	1	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0054	99	75-125	4	20	
Lithium	0.102	0.250	0.0103	mg/L	0.10000	ND	102	75-125	2	20	J



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2016

Report No.: AZJ0700

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Post Spike (6100710-PS1)				Source: AZJ0696-05			Prepared: 10/27/16 Analyzed: 10/29/16				
Antimony	109			ug/L	100.00	0.588	108	80-120			
Arsenic	113			ug/L	100.00	5.81	107	80-120			
Barium	124			ug/L	100.00	20.8	103	80-120			
Beryllium	96.2			ug/L	100.00	0.500	96	80-120			
Boron	16000			ug/L	1000.0	13700	233	80-120			QM-02
Cadmium	95.0			ug/L	100.00	0.172	95	80-120			
Calcium	585000			ug/L	1000.0	564000	NR	80-120			QM-02
Chromium	108			ug/L	100.00	0.110	108	80-120			
Cobalt	126			ug/L	100.00	25.3	101	80-120			
Copper	91.0			ug/L	100.00	0.183	91	80-120			
Lead	88.5			ug/L	100.00	1.57	87	80-120			
Molybdenum	109			ug/L	100.00	0.199	109	80-120			
Nickel	104			ug/L	100.00	6.33	98	80-120			
Selenium	128			ug/L	100.00	13.5	115	80-120			
Silver	91.0			ug/L	100.00	0.0447	91	80-120			
Thallium	90.1			ug/L	100.00	0.369	90	80-120			
Vanadium	109			ug/L	100.00	-0.296	110	80-120			
Zinc	103			ug/L	100.00	5.40	97	80-120			
Lithium	106			ug/L	100.00	0.650	105	80-120			

Batch 6100740 - EPA 7470A

Blank (6100740-BLK1)				Prepared & Analyzed: 10/28/16							
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100740-BS1)				Prepared & Analyzed: 10/28/16							
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2016

Report No.: AZJ0700

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100740 - EPA 7470A											
Matrix Spike (6100740-MS1)			Source: AZJ0702-01			Prepared & Analyzed: 10/28/16					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6100740-MSD1)			Source: AZJ0702-01			Prepared & Analyzed: 10/28/16					
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	2	20	
Post Spike (6100740-PS1)			Source: AZJ0702-01			Prepared & Analyzed: 10/28/16					
Mercury	1.70			ug/L	1.6667	0.00850	101	80-120			



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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 ; FAX (770) 734-4201 ; WWW.ASI-LAB.COM

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McConkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O	
Collection DATE	Collection TIME	MATRIX CODE	CGR M A B	SAMPLE IDENTIFICATION	
10/24/16	18:16	GW	V	ARWA-12	
CONTAINER INFORMATION CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER PRESERVATION: 1 - HCl, ≤6°C, 2 - H ₂ SO ₄ , ≤6°C, 3 - HNO ₃ , 4 - NaOH, ≤6°C, 5 - NaOH/Na ₂ O, ≤6°C, 6 - Na ₂ O ₂ , ≤6°C, 7 - ≤6°C not frozen MATRIX CODES: DW - DRINKING WATER, S - SOIL, WW - WASTEWATER, SL - SLUDGE, GW - GROUNDWATER, SD - SOLID, SW - SURFACE WATER, A - AIR, ST - STORM WATER, L - LIQUID, W - WATER, P - PRODUCT					
ANALYSIS REQUESTED # of CONTAINERS: 3 Metals App. III & IV (EPA 6020/7470) Silver (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)					
RELINQUISHED BY: [Signature] DATE/TIME: 10/25/16 1335 RELINQUISHED BY: [Signature] DATE/TIME: 10/25/16 1335					
SAMPLED BY AND TITLE: [Signature] DATE/TIME: 10/25/16 0830 RECEIVED BY: [Signature] DATE/TIME: 10/25/16 1335 PREPARED BY LAB: [Signature] DATE/TIME: 10/25/16 1335 Checked: [Signature] No. NA [Signature] No. NA [Signature] No. NA					
FOR LAB USE ONLY LAB #: AZJ0700 Entered into LIMS: [Signature] Tracking #: [Signature]					

Plant Arkwright - Ash Pond 3 COC.xlsx



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 11/2/2016 4:54:01PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 10/25/16 15:35

Work Order: AZJ0700

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 1

#Containers: 3

Minimum Temp(C): 2.0

Maximum Temp(C): 2.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

December 09, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Arkwright
Pace Project No.: 30200504

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on October 26, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report replaces final report from November 30, 2016. Report reissued to reflect omission of pg 10 that was included in error in initial report..

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

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Arkwright

Pace Project No.: 30200504

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Arkwright
Pace Project No.: 30200504

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200504001	ARGWA-12	Water	10/24/16 18:10	10/26/16 10:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright
Pace Project No.: 30200504

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200504001	ARGWA-12	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200504

Sample: ARGWA-12 **Lab ID: 30200504001** Collected: 10/24/16 18:10 Received: 10/26/16 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0145 ± 0.165 (0.457) C:87% T:NA	pCi/L	11/09/16 07:01	13982-63-3	
Radium-228	EPA 9320	0.808 ± 0.368 (0.618) C:77% T:100%	pCi/L	11/28/16 15:22	15262-20-1	
Total Radium	Total Radium Calculation	0.808 ± 0.533 (1.08)	pCi/L	11/29/16 16:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200504

QC Batch: 239218

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200504001

METHOD BLANK: 1175535

Matrix: Water

Associated Lab Samples: 30200504001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0550 ± 0.118 (0.398) C:85% T:NA	pCi/L	11/09/16 06:59	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200504

QC Batch: 239882

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200504001

METHOD BLANK: 1178558

Matrix: Water

Associated Lab Samples: 30200504001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.610 ± 0.398 (0.756) C:82% T:76%	pCi/L	11/28/16 15:21	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Arkwright

Pace Project No.: 30200504

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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WO#: 30200504



30200504

Chain of Custody



Workorder: AZJ0700

Workorder Name: Plant Arkwright

Owner Received Date:

Results Requested By: 11/28/2016

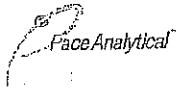
Report To:	Subcontract To:	Requested Analysis					
Betsy McDaniel Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092 Phone (770)-734-4200	Pace - Pittsburgh 1638 Roseytown Road Stes. 2,3,4 Greensburg, PA 15601 Phone (724) 850-5600	Radium 226, 228, Total					
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	LAB USE ONLY
1	ARGWA-12	G	10/24/2016 18:10	AZJ0700-01	GW	EONH 1	X
2							
3							
4							
5							
6							
7							
8							
9							
10							
Transfers	Released By	Date/Time	Received By	Date/Time	Comments		
1			<i>[Signature]</i>	10-26-16 10:30			
2							
3							

Cooler Temperature on Receipt NA °C Custody Seal Y or N N Received on Ice Y or N Y Sample Intact Y or N Y

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Condition Upon Receipt Pittsburgh



Client Name: PACE GA

Project # 30200504

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: MSTR 0812 5100 0382

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used NA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp NA °C Correction Factor: NA °C Final Temp: NA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10-26-16 TAW

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>PA < 2</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed: <u>TAW</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Aqueous Samples Screened > 0.5 mrem/hr	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	initial when completed: <u>TAW</u> Date: <u>10-26-16</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JC2
Date: 11/18/2016
Worklist: 32293
Matrix: DW

Method Blank Assessment	
MB Sample ID	1175535
MB concentration:	-0.055
MB Counting Uncertainty:	0.118
MB MDC:	0.398
MB Numerical Performance Indicator:	-0.91
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	11/19/2016
Spike I.D.:	16-026
Spike Concentration (pCi/mL):	44.675
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	8.926
Uncertainty (Calculated):	0.420
Result (pCi/L, g, F):	7.610
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.866
Numerical Performance Indicator:	-2.68
Percent Recovery:	85.26%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30200502001
Duplicate Sample I.D.:	30200502001DUP
Sample Result (pCi/L, g, F):	0.981
Sample Duplicate Result (pCi/L, g, F):	0.372
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.175
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.397
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	-0.700
Duplicate RPD:	18.00%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

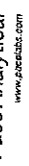
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 11/22/2016
Worklist: 32406
Matrix: DW

Method Blank Assessment	
MB Sample ID	1178558
MB concentration:	0.610
M/B Counting Uncertainty:	0.383
MB MDC:	0.756
MB Numerical Performance Indicator:	3.12
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS#	LCS32406
Count Date:	11/28/2016
Spike I.D.:	16-027
Spike Concentration (pCi/mL):	25.962
Volume Used (mL):	0.20
Alliquot Volume (L, g, F):	0.813
Target Conc. (pCi/L, g, F):	6.385
Uncertainty (Calculated):	0.460
Result (pCi/L, g, F):	8.119
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.744
Numerical Performance Indicator:	3.89
Percent Recovery:	127.15%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30200749001
Duplicate Sample I.D.:	30200749001DUP
Sample Result (pCi/L, g, F):	1.763
Sample Duplicate Result (pCi/L, g, F):	0.390
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	2.026
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.427
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	-0.892
Duplicate RPD:	13.88%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

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PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZJ0762

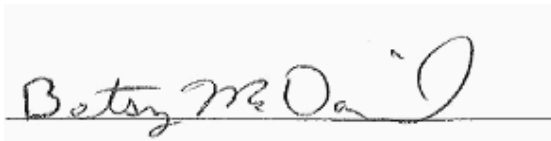
November 07, 2016

Project: CCR Event

Project #: Plant Arkwright

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

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All test results relate only to the samples analyzed.



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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 07, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ARGWC-18 Filtered	AZJ0762-01	Ground Water	10/26/16 13:50	10/27/16 09:10
ARGWC-15 Filtered	AZJ0762-02	Ground Water	10/26/16 15:20	10/27/16 09:10



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 07, 2016

Report No.: AZJ0762

Project: CCR Event

Client ID: ARGWC-18 Filtered

Lab Number ID: AZJ0762-01

Date/Time Sampled: 10/26/2016 1:50:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
Metals, Dissolved											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Barium	0.0324	0.0100	0.0004	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Boron	2.18	0.100	0.0064	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Calcium	40.9	2.50	0.155	mg/L	EPA 6020B		5	11/01/16 08:20	11/04/16 15:03	6100818	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Cobalt	0.0012	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Lithium	0.0035	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/01/16 08:20	11/04/16 12:49	6100818	CSW
Mercury	ND	0.0005	0.00004	mg/L	EPA 7470A		1	11/01/16 10:00	11/01/16 14:14	6110010	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 07, 2016

Report No.: AZJ0762

Project: CCR Event

Client ID: ARGWC-15 Filtered

Lab Number ID: AZJ0762-02

Date/Time Sampled: 10/26/2016 3:20:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
Metals, Dissolved											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Barium	0.0254	0.0100	0.0004	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Boron	0.0265	0.100	0.0064	mg/L	EPA 6020B	J	1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Calcium	15.1	2.50	0.155	mg/L	EPA 6020B		5	11/01/16 08:20	11/04/16 15:08	6100818	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Lithium	0.0026	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/01/16 08:20	11/04/16 12:55	6100818	CSW
Mercury	ND	0.0005	0.00004	mg/L	EPA 7470A		1	11/01/16 10:00	11/01/16 14:16	6110010	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 07, 2016

Report No.: AZJ0762

Metals, Dissolved - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100818 - EPA 3005A											
Blank (6100818-BLK1)						Prepared: 11/01/16 Analyzed: 11/04/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100818-BS1)						Prepared: 11/01/16 Analyzed: 11/04/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000		110	80-120			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000		101	80-120			
Barium	0.0994	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.03	0.100	0.0064	mg/L	1.0000		103	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	0.998	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.0991	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0942	0.0100	0.0005	mg/L	0.10000		94	80-120			
Copper	0.0939	0.0050	0.0005	mg/L	0.10000		94	80-120			
Lead	0.0977	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000		102	80-120			
Nickel	0.0964	0.0050	0.0006	mg/L	0.10000		96	80-120			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.0982	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.0998	0.0100	0.0071	mg/L	0.10000		100	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000		103	80-120			



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Attention: Mr. Joju Abraham

November 07, 2016

Report No.: AZJ0762

Metals, Dissolved - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100818 - EPA 3005A											
Matrix Spike (6100818-MS1)			Source: AZJ0762-01			Prepared: 11/01/16 Analyzed: 11/04/16					
Antimony	0.108	0.0030	0.0008	mg/L	0.10000	ND	108	75-125			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125			
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0324	94	75-125			
Beryllium	0.0879	0.0030	0.00008	mg/L	0.10000	ND	88	75-125			
Boron	3.00	0.100	0.0064	mg/L	1.0000	2.18	82	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	43.0	2.50	0.155	mg/L	1.0000	40.9	212	75-125			QM-02
Chromium	0.0973	0.0100	0.0009	mg/L	0.10000	ND	97	75-125			
Cobalt	0.0957	0.0100	0.0005	mg/L	0.10000	0.0012	95	75-125			
Copper	0.0933	0.0050	0.0005	mg/L	0.10000	0.0007	93	75-125			
Lead	0.0957	0.0050	0.0001	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000	ND	106	75-125			
Nickel	0.0965	0.0050	0.0006	mg/L	0.10000	0.0020	94	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125			
Silver	0.0983	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0959	0.0010	0.0002	mg/L	0.10000	ND	96	75-125			
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000	ND	101	75-125			
Zinc	0.102	0.0100	0.0021	mg/L	0.10000	ND	102	75-125			
Lithium	0.0911	0.0500	0.0021	mg/L	0.10000	0.0035	88	75-125			
Matrix Spike Dup (6100818-MSD1)			Source: AZJ0762-01			Prepared: 11/01/16 Analyzed: 11/04/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	ND	110	75-125	1	20	
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125	0.2	20	
Barium	0.131	0.0100	0.0004	mg/L	0.10000	0.0324	99	75-125	4	20	
Beryllium	0.0897	0.0030	0.00008	mg/L	0.10000	ND	90	75-125	2	20	
Boron	2.99	0.100	0.0064	mg/L	1.0000	2.18	81	75-125	0.3	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	0.8	20	
Calcium	42.2	2.50	0.155	mg/L	1.0000	40.9	136	75-125	2	20	QM-02
Chromium	0.0953	0.0100	0.0009	mg/L	0.10000	ND	95	75-125	2	20	
Cobalt	0.0938	0.0100	0.0005	mg/L	0.10000	0.0012	93	75-125	2	20	
Copper	0.0931	0.0050	0.0005	mg/L	0.10000	0.0007	92	75-125	0.2	20	
Lead	0.0955	0.0050	0.0001	mg/L	0.10000	ND	95	75-125	0.2	20	
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125	0.2	20	
Nickel	0.0968	0.0050	0.0006	mg/L	0.10000	0.0020	95	75-125	0.3	20	
Selenium	0.104	0.0100	0.0010	mg/L	0.10000	ND	104	75-125	1	20	
Silver	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000	ND	97	75-125	2	20	
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000	ND	101	75-125	0.4	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	3	20	
Lithium	0.0942	0.0500	0.0021	mg/L	0.10000	0.0035	91	75-125	3	20	



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November 07, 2016

Report No.: AZJ0762

Metals, Dissolved - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100818 - EPA 3005A											
Post Spike (6100818-PS1)				Source: AZJ0762-01				Prepared: 11/01/16 Analyzed: 11/04/16			
Antimony	110			ug/L	100.00	0.0545	110	80-120			
Arsenic	102			ug/L	100.00	0.182	102	80-120			
Barium	129			ug/L	100.00	32.4	97	80-120			
Beryllium	89.4			ug/L	100.00	0.0392	89	80-120			
Boron	3050			ug/L	1000.0	2180	88	80-120			
Cadmium	100			ug/L	100.00	0.0471	100	80-120			
Calcium	43200			ug/L	1000.0	40900	237	80-120			QM-02
Chromium	101			ug/L	100.00	0.148	101	80-120			
Cobalt	96.4			ug/L	100.00	1.18	95	80-120			
Copper	97.8			ug/L	100.00	0.694	97	80-120			
Lead	95.2			ug/L	100.00	0.0398	95	80-120			
Molybdenum	105			ug/L	100.00	0.311	105	80-120			
Nickel	101			ug/L	100.00	2.04	99	80-120			
Selenium	104			ug/L	100.00	-0.157	104	80-120			
Silver	98.0			ug/L	100.00	0.0250	98	80-120			
Thallium	96.0			ug/L	100.00	0.155	96	80-120			
Vanadium	104			ug/L	100.00	1.41	103	80-120			
Zinc	103			ug/L	100.00	1.99	101	80-120			
Lithium	90.4			ug/L	100.00	3.50	87	80-120			

Batch 6110010 - EPA 7470A

Blank (6110010-BLK1)				Prepared & Analyzed: 11/01/16							
Mercury	ND	0.0005	0.00004	mg/L							
LCS (6110010-BS1)				Prepared & Analyzed: 11/01/16							
Mercury	0.0023	0.0005	0.00004	mg/L	2.5000E-3	92	80-120				



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Report No.: AZJ0762

Metals, Dissolved - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110010 - EPA 7470A											
Matrix Spike (6110010-MS1)			Source: AZJ0762-02			Prepared & Analyzed: 11/01/16					
Mercury	0.0022	0.0005	0.00004	mg/L	2.5000E-3	ND	87	75-125			
Matrix Spike Dup (6110010-MSD1)			Source: AZJ0762-02			Prepared & Analyzed: 11/01/16					
Mercury	0.0022	0.0005	0.00004	mg/L	2.5000E-3	ND	88	75-125	1	20	
Post Spike (6110010-PS1)			Source: AZJ0762-02			Prepared & Analyzed: 11/01/16					
Mercury	1.50			ug/L	1.6667	-0.0572	93	80-120			



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November 07, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

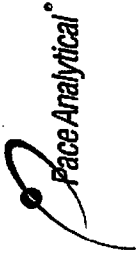
Definition of Qualifiers

- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com



CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernmco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O	
CONTAINER TYPE: PRESERVATION: # of CONTAINERS →	ANALYSIS REQUESTED P P P P P P P 3 3 7 3 Metals App. III & IV (EPA 6020/7470) (Field Filtered) Silver (EPA 6020) (Field Filtered) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SM-846 9315/9320)	CONTAINER TYPE P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	PRESERVATION 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT	REMARKS/ADDITIONAL INFORMATION
DATE: 10/26/16 TIME: 1350 MATRIX CODE: GW SAMPLE IDENTIFICATION: ARGW-18 Filtered	DATE: 10/26/16 TIME: 1520 MATRIX CODE: GW SAMPLE IDENTIFICATION: ARGW-15 Filtered	LAB #: AZJ0762 Entered into LIMS: Tracking #:		FOR LAB USE ONLY	LAB #: AZJ0762 Entered into LIMS: Tracking #:
RELINQUISHED BY: [Signature] RELINQUISHED DATE: 10/27/16 0910	RELINQUISHED BY: [Signature] RELINQUISHED DATE: 10/27/16 0910	DATE/TIME: 10/27/16 0910 DATE/TIME:	DATE/TIME: 10/27/16 0910 DATE/TIME:	DATE/TIME: 10/27/16 0910 DATE/TIME:	DATE/TIME: 10/27/16 0910 DATE/TIME:
SAMPLED BY AND TITLE: [Signature] RECEIVED BY: [Signature]	SAMPLED BY AND TITLE: [Signature] RECEIVED BY: [Signature]	DATE/TIME: 10/26/16 1645 DATE/TIME:	DATE/TIME: 10/26/16 1645 DATE/TIME:	DATE/TIME: 10/27/16 0910 DATE/TIME:	DATE/TIME: 10/27/16 0910 DATE/TIME:
RECEIVED BY LAB: [Signature] Checked: [Signature]	RECEIVED BY LAB: [Signature] Checked: [Signature]	DATE/TIME: 10/27/16 0910 Temperature: 16°C Shaken: [X] Yes [] No Other: [X] Present [] Not Present	DATE/TIME: 10/27/16 0910 Temperature: 16°C Shaken: [X] Yes [] No Other: [X] Present [] Not Present	DATE/TIME: 10/27/16 0910 Temperature: 16°C Shaken: [X] Yes [] No Other: [X] Present [] Not Present	DATE/TIME: 10/27/16 0910 Temperature: 16°C Shaken: [X] Yes [] No Other: [X] Present [] Not Present

Plant Arkwright - Ash Pond 2 COC.xlsx



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 11/7/2016 4:09:13PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 10/27/16 09:10

Work Order: AZJ0762

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2

#Containers: 2

Minimum Temp(C): 1.0

Maximum Temp(C): 1.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZJ0763

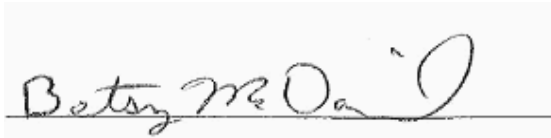
November 10, 2016

Project: CCR Event

Project #: Plant Arkwright

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.
All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ARGWA-3	AZJ0763-01	Ground Water	10/25/16 12:10	10/27/16 09:10
ARGWA-5	AZJ0763-02	Ground Water	10/25/16 09:25	10/27/16 09:10
ARGWA-13	AZJ0763-03	Ground Water	10/25/16 11:50	10/27/16 09:10
ARGWA-14	AZJ0763-04	Ground Water	10/25/16 14:45	10/27/16 09:10
ARGWC-7	AZJ0763-05	Ground Water	10/25/16 15:25	10/27/16 09:10
ARGWC-9	AZJ0763-06	Ground Water	10/25/16 13:20	10/27/16 09:10
ARGWC-10	AZJ0763-07	Ground Water	10/25/16 14:15	10/27/16 09:10
ARGWC-16	AZJ0763-08	Ground Water	10/25/16 16:35	10/27/16 09:10
ARGWC-17	AZJ0763-09	Ground Water	10/25/16 18:05	10/27/16 09:10
FB-1-10-25-16	AZJ0763-10	Water	10/25/16 18:40	10/27/16 09:10
Dup-1	AZJ0763-11	Ground Water	10/25/16 00:00	10/27/16 09:10
ARGWC-18	AZJ0763-12	Ground Water	10/26/16 13:50	10/27/16 09:10
ARGWC-15	AZJ0763-13	Ground Water	10/26/16 15:20	10/27/16 09:10
ARGWC-8	AZJ0763-14	Ground Water	10/26/16 14:50	10/27/16 09:10
EB-2-10-26-16	AZJ0763-15	Water	10/26/16 16:10	10/27/16 09:10



PACE ANALYTICAL SERVICES, INC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Case Narrative

Inorganic Anions Analysis by Method EPA 300.0 (QM-10 Qualifiers):

Due to an autosampler mechanical error, sample 6100828-MS2 (Source: AZJ0763-14) did not inject resulting in no recovery of the spiked analytes. The batch was validated using the MS1 and MSD1 samples.



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWA-3

Lab Number ID: AZJ0763-01

Date/Time Sampled: 10/25/2016 12:10:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	65	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 15:26	6100828	RNB
Fluoride	0.14	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 15:26	6100828	RNB
Sulfate	0.30	1.0	0.05	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 15:26	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Barium	0.0160	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Boron	0.0068	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Calcium	4.47	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Chromium	0.0028	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:52	6100776	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/01/16 09:50	11/01/16 13:43	6100823	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWA-5

Lab Number ID: AZJ0763-02

Date/Time Sampled: 10/25/2016 9:25:00AM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	34	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	5.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 16:30	6100828	RNB
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 16:30	6100828	RNB
Sulfate	0.40	1.0	0.05	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 16:30	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Barium	0.0293	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Boron	0.0073	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Calcium	4.76	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Chromium	0.0014	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 02:58	6100776	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/01/16 09:50	11/01/16 13:46	6100823	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWA-13

Lab Number ID: AZJ0763-03

Date/Time Sampled: 10/25/2016 11:50:00AM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1280	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	7.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 16:51	6100828	RNB
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 16:51	6100828	RNB
Sulfate	820	50	2.6	mg/L	EPA 300.0		50	10/31/16 16:40	11/07/16 04:10	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Barium	0.0429	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Boron	0.204	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Calcium	150	25.0	1.55	mg/L	EPA 6020B		50	10/31/16 08:45	11/03/16 14:58	6100776	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Selenium	0.0257	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Lithium	0.0048	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/31/16 08:45	11/01/16 03:04	6100776	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/01/16 09:50	11/01/16 13:48	6100823	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWA-14

Lab Number ID: AZJ0763-04

Date/Time Sampled: 10/25/2016 2:45:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	459	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	9.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 17:12	6100828	RNB
Fluoride	0.53	0.30	0.02	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 17:12	6100828	RNB
Sulfate	42	5.0	0.26	mg/L	EPA 300.0		5	10/31/16 16:40	11/07/16 04:31	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Barium	0.0390	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Boron	0.0650	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Calcium	38.5	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 08:45	11/03/16 15:05	6100776	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 08:45	11/01/16 03:09	6100776	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/01/16 09:50	11/01/16 13:50	6100823	MTC



PACE ANALYTICAL SERVICES, INC.

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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-7

Lab Number ID: AZJ0763-05

Date/Time Sampled: 10/25/2016 3:25:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	171	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	6.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 17:34	6100828	RNB
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 17:34	6100828	RNB
Sulfate	56	5.0	0.26	mg/L	EPA 300.0		5	10/31/16 16:40	11/07/16 04:52	6100828	RLC
Metals, Total											
Antimony	0.0013	0.0030	0.0008	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Barium	0.0317	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Boron	0.126	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Calcium	10.9	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 11:00	11/02/16 11:39	6100807	CSW
Chromium	0.0029	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Lithium	0.0024	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:08	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 13:50	6110037	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-9

Lab Number ID: AZJ0763-06

Date/Time Sampled: 10/25/2016 1:20:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	67	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	6.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 17:55	6100828	RNB
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 17:55	6100828	RNB
Sulfate	4.7	1.0	0.05	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 17:55	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Barium	0.0455	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Boron	0.0071	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Calcium	4.64	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Chromium	0.0109	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:14	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 13:53	6110037	MTC



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Environmental Monitoring & Laboratory Analysis
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-10

Lab Number ID: AZJ0763-07

Date/Time Sampled: 10/25/2016 2:15:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	65	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 19:41	6100828	RNB
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 19:41	6100828	RNB
Sulfate	0.38	1.0	0.05	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 19:41	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Barium	0.0296	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Calcium	5.89	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Chromium	0.0042	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:20	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 13:55	6110037	MTC



PACE ANALYTICAL SERVICES, INC.

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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-16

Lab Number ID: AZJ0763-08

Date/Time Sampled: 10/25/2016 4:35:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	304	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 20:02	6100828	RNB
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 20:02	6100828	RNB
Sulfate	200	5.0	0.26	mg/L	EPA 300.0		5	10/31/16 16:40	11/07/16 05:14	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Barium	0.0637	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Boron	0.0420	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Calcium	29.8	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 11:00	11/02/16 11:45	6100807	CSW
Chromium	0.0023	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Selenium	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:26	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 13:58	6110037	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-17

Lab Number ID: AZJ0763-09

Date/Time Sampled: 10/25/2016 6:05:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	114	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	5.1	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 20:23	6100828	RNB
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 20:23	6100828	RNB
Sulfate	73	5.0	0.26	mg/L	EPA 300.0		5	10/31/16 16:40	11/07/16 05:35	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Barium	0.0436	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Beryllium	0.0002	0.0030	0.00008	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Boron	0.0219	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Calcium	13.5	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 11:00	11/02/16 11:51	6100807	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Cobalt	0.0144	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:31	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:05	6110037	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: FB-1-10-25-16

Lab Number ID: AZJ0763-10

Date/Time Sampled: 10/25/2016 6:40:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	0.34	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 20:45	6100828	RNB
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 20:45	6100828	RNB
Sulfate	5.3	1.0	0.05	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 20:45	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:49	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:07	6110037	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AZJ0763-11

Date/Time Sampled: 10/25/2016 12:00:00AM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	64	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 21:06	6100828	RNB
Fluoride	0.19	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 21:06	6100828	RNB
Sulfate	0.57	1.0	0.05	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 21:06	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Barium	0.0298	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Calcium	4.80	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Chromium	0.0013	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 19:54	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:09	6110037	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-18

Lab Number ID: AZJ0763-12

Date/Time Sampled: 10/26/2016 1:50:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	404	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	8.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 21:27	6100828	RNB
Fluoride	0.32	0.30	0.02	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 21:27	6100828	RNB
Sulfate	200	5.0	0.26	mg/L	EPA 300.0		5	10/31/16 16:40	11/07/16 05:56	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Barium	0.0339	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Boron	1.97	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Calcium	44.3	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 11:00	11/02/16 11:58	6100807	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Cobalt	0.0013	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Lithium	0.0037	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:00	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:12	6110037	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-15

Lab Number ID: AZJ0763-13

Date/Time Sampled: 10/26/2016 3:20:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	125	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	3.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 21:48	6100828	RNB
Fluoride	0.21	0.30	0.02	mg/L	EPA 300.0	J	1	10/31/16 16:40	11/01/16 21:48	6100828	RNB
Sulfate	22	1.0	0.05	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 21:48	6100828	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Barium	0.0408	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Boron	0.0138	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Calcium	23.7	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 11:00	11/02/16 12:04	6100807	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Cobalt	0.0036	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Lead	0.0003	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Lithium	0.0025	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:06	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:14	6110037	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: ARGWC-8

Lab Number ID: AZJ0763-14

Date/Time Sampled: 10/26/2016 2:50:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	283	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	7.1	0.25	0.01	mg/L	EPA 300.0	B-01	1	10/31/16 16:40	11/01/16 22:09	6100828	RNB
Fluoride	0.43	0.30	0.02	mg/L	EPA 300.0		1	10/31/16 16:40	11/01/16 22:09	6100828	RNB
Sulfate	77	5.0	0.26	mg/L	EPA 300.0		5	10/31/16 16:40	11/07/16 06:17	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Barium	0.0423	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Boron	1.14	0.100	0.0064	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Calcium	43.3	2.50	0.155	mg/L	EPA 6020B		5	10/31/16 11:00	10/31/16 21:26	6100807	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Molybdenum	0.0377	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Lithium	0.0025	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:11	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:17	6110037	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Project: CCR Event

Client ID: EB-2-10-26-16

Lab Number ID: AZJ0763-15

Date/Time Sampled: 10/26/2016 4:10:00PM

Date/Time Received: 10/27/2016 9:10:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	11/01/16 09:35	11/01/16 09:35	6100803	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	10/31/16 16:40	11/08/16 15:30	6100828	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	10/31/16 16:40	11/08/16 15:30	6100828	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/31/16 16:40	11/08/16 15:30	6100828	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Boron	0.0066	0.100	0.0064	mg/L	EPA 6020B	J	1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/31/16 11:00	10/31/16 20:17	6100807	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/02/16 10:50	11/02/16 14:19	6110037	MTC



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Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100803 - SM 2540 C											
Blank (6100803-BLK1)						Prepared & Analyzed: 11/01/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6100803-BS1)						Prepared & Analyzed: 11/01/16					
Total Dissolved Solids	397	10	10	mg/L	400.00		99	84-108			
Duplicate (6100803-DUP1)						Source: AZJ0763-08 Prepared & Analyzed: 11/01/16					
Total Dissolved Solids	307	10	10	mg/L		304			1	10	
Duplicate (6100803-DUP2)						Source: AZJ0785-02 Prepared & Analyzed: 11/01/16					
Total Dissolved Solids	1520	10	10	mg/L		1520			0.2	10	



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Report No.: AZJ0763

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100828 - EPA 300.0											
Blank (6100828-BLK1)						Prepared: 10/31/16 Analyzed: 11/01/16					
Chloride	0.02	0.25	0.01	mg/L							J
Fluoride	ND	0.10	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6100828-BS1)						Prepared: 10/31/16 Analyzed: 11/01/16					
Chloride	10.6	1.0	0.01	mg/L	10.010		106	90-110			
Fluoride	10.6	0.10	0.02	mg/L	10.020		106	90-110			
Sulfate	10.4	5.0	0.05	mg/L	10.020		104	90-110			
Duplicate (6100828-DUP1)						Source: AZJ0763-15RE1			Prepared: 10/31/16 Analyzed: 11/08/16		
Chloride	ND	1.0	1.0	mg/L		ND				15	
Fluoride	ND	0.10	0.10	mg/L		ND				15	
Sulfate	ND	5.0	5.0	mg/L		ND				15	
Matrix Spike (6100828-MS1)						Source: AZJ0763-01			Prepared: 10/31/16 Analyzed: 11/01/16		
Chloride	13.5	1.0	0.01	mg/L	10.010	3.13	103	90-110			
Fluoride	11.2	0.10	0.02	mg/L	10.020	0.14	110	90-110			QM-05
Sulfate	11.4	5.0	0.05	mg/L	10.020	0.30	110	90-110			QM-05
Matrix Spike (6100828-MS2)						Source: AZJ0763-14			Prepared: 10/31/16 Analyzed: 11/01/16		
Chloride	0.17	1.0	0.01	mg/L	10.010	7.10	NR	90-110			QM-10, J
Fluoride	0.34	0.10	0.02	mg/L	10.020	0.43	NR	90-110			QM-10
Sulfate	2.22	5.0	0.05	mg/L	10.020	74.1	NR	90-110			QM-10, J
Matrix Spike Dup (6100828-MSD1)						Source: AZJ0763-01			Prepared: 10/31/16 Analyzed: 11/01/16		
Chloride	13.3	1.0	0.01	mg/L	10.010	3.13	101	90-110	1	15	
Fluoride	11.2	0.10	0.02	mg/L	10.020	0.14	111	90-110	0.2	15	QM-05
Sulfate	11.3	5.0	0.05	mg/L	10.020	0.30	110	90-110	0.4	15	



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November 10, 2016

Report No.: AZJ0763

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100776 - EPA 3005A											
Blank (6100776-BLK1)						Prepared: 10/31/16 Analyzed: 11/01/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100776-BS1)						Prepared: 10/31/16 Analyzed: 11/01/16					
Antimony	0.101	0.0030	0.0008	mg/L	0.10000		101	80-120			
Arsenic	0.0980	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0996	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.100	0.0030	0.00008	mg/L	0.10000		100	80-120			
Boron	1.04	0.100	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.0984	0.0010	0.00007	mg/L	0.10000		98	80-120			
Calcium	0.996	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.106	0.0100	0.0009	mg/L	0.10000		106	80-120			
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.0976	0.0050	0.0005	mg/L	0.10000		98	80-120			
Lead	0.0959	0.0050	0.0001	mg/L	0.10000		96	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.0980	0.0050	0.0006	mg/L	0.10000		98	80-120			
Selenium	0.0999	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Thallium	0.0975	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000		103	80-120			
Zinc	0.109	0.0100	0.0021	mg/L	0.10000		109	80-120			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000		104	80-120			



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100776 - EPA 3005A											
Matrix Spike (6100776-MS1)			Source: AZJ0754-04			Prepared: 10/31/16 Analyzed: 11/01/16					
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125			
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000	ND	103	75-125			
Barium	0.185	0.0100	0.0004	mg/L	0.10000	0.0876	98	75-125			
Beryllium	0.0987	0.0030	0.00008	mg/L	0.10000	0.0001	99	75-125			
Boron	3.89	0.500	0.0321	mg/L	1.0000	3.39	51	75-125			QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	26.1	2.50	0.155	mg/L	1.0000	24.7	138	75-125			QM-02
Chromium	0.108	0.0100	0.0009	mg/L	0.10000	ND	108	75-125			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			
Copper	0.100	0.0050	0.0005	mg/L	0.10000	ND	100	75-125			
Lead	0.0966	0.0050	0.0001	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	ND	102	75-125			
Selenium	0.0961	0.0100	0.0010	mg/L	0.10000	ND	96	75-125			
Silver	0.105	0.0100	0.0005	mg/L	0.10000	ND	105	75-125			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000	ND	102	75-125			
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125			
Zinc	0.110	0.0100	0.0021	mg/L	0.10000	0.0029	108	75-125			
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	ND	101	75-125			
Matrix Spike Dup (6100776-MSD1)			Source: AZJ0754-04			Prepared: 10/31/16 Analyzed: 11/01/16					
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125	0.5	20	
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000	ND	103	75-125	0.4	20	
Barium	0.183	0.0100	0.0004	mg/L	0.10000	0.0876	95	75-125	1	20	
Beryllium	0.0971	0.0030	0.00008	mg/L	0.10000	0.0001	97	75-125	2	20	
Boron	4.08	0.500	0.0321	mg/L	1.0000	3.39	70	75-125	5	20	QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	0.9	20	
Calcium	25.6	2.50	0.155	mg/L	1.0000	24.7	81	75-125	2	20	
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125	3	20	
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	1	20	
Copper	0.0958	0.0050	0.0005	mg/L	0.10000	ND	96	75-125	4	20	
Lead	0.0988	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	2	20	
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125	0.7	20	
Nickel	0.0981	0.0050	0.0006	mg/L	0.10000	ND	98	75-125	4	20	
Selenium	0.0917	0.0100	0.0010	mg/L	0.10000	ND	92	75-125	5	20	
Silver	0.0998	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	5	20	
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125	0.8	20	
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125	4	20	
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	0.0029	103	75-125	4	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	ND	101	75-125	0.2	20	



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Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100776 - EPA 3005A											
Post Spike (6100776-PS1)			Source: AZJ0754-04			Prepared: 10/31/16 Analyzed: 11/01/16					
Antimony	95.4			ug/L	100.00	0.285	95	80-120			
Arsenic	100			ug/L	100.00	1.52	99	80-120			
Barium	183			ug/L	100.00	87.6	95	80-120			
Beryllium	100			ug/L	100.00	0.122	100	80-120			
Boron	4170			ug/L	1000.0	3390	78	80-120			QM-02
Cadmium	102			ug/L	100.00	0.0002	102	80-120			
Calcium	24400			ug/L	1000.0	24700	NR	80-120			QM-02
Chromium	108			ug/L	100.00	0.787	107	80-120			
Cobalt	106			ug/L	100.00	0.276	105	80-120			
Copper	98.4			ug/L	100.00	0.269	98	80-120			
Lead	96.1			ug/L	100.00	0.0637	96	80-120			
Molybdenum	107			ug/L	100.00	0.493	107	80-120			
Nickel	102			ug/L	100.00	0.157	102	80-120			
Selenium	104			ug/L	100.00	0.280	104	80-120			
Silver	100			ug/L	100.00	0.0089	100	80-120			
Thallium	100			ug/L	100.00	0.0644	100	80-120			
Vanadium	110			ug/L	100.00	2.12	108	80-120			
Zinc	110			ug/L	100.00	2.89	107	80-120			
Lithium	102			ug/L	100.00	0.684	101	80-120			

Batch 6100807 - EPA 3005A

Blank (6100807-BLK1)					Prepared & Analyzed: 10/31/16						
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100807 - EPA 3005A											
Blank (6100807-BLK1)						Prepared & Analyzed: 10/31/16					
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100807-BS1)						Prepared & Analyzed: 10/31/16					
Antimony	0.101	0.0030	0.0008	mg/L	0.10000		101	80-120			
Arsenic	0.0958	0.0050	0.0016	mg/L	0.10000		96	80-120			
Barium	0.0957	0.0100	0.0004	mg/L	0.10000		96	80-120			
Beryllium	0.0966	0.0030	0.00008	mg/L	0.10000		97	80-120			
Boron	1.03	0.0400	0.0064	mg/L	1.0000		103	80-120			
Cadmium	0.0941	0.0010	0.00007	mg/L	0.10000		94	80-120			
Calcium	0.979	0.500	0.0311	mg/L	1.0000		98	80-120			
Chromium	0.0996	0.0100	0.0009	mg/L	0.10000		100	80-120			
Cobalt	0.0971	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.0952	0.0050	0.0005	mg/L	0.10000		95	80-120			
Lead	0.0951	0.0050	0.0001	mg/L	0.10000		95	80-120			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000		101	80-120			
Nickel	0.0965	0.0050	0.0006	mg/L	0.10000		97	80-120			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Silver	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000		97	80-120			
Vanadium	0.0984	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000		103	80-120			
Matrix Spike (6100807-MS1)						Source: AZJ0763-05 Prepared & Analyzed: 10/31/16					
Antimony	0.100	0.0030	0.0008	mg/L	0.10000	0.0013	99	75-125			
Arsenic	0.0969	0.0050	0.0016	mg/L	0.10000	ND	97	75-125			
Barium	0.129	0.0100	0.0004	mg/L	0.10000	0.0317	98	75-125			
Beryllium	0.0834	0.0030	0.00008	mg/L	0.10000	0.0001	83	75-125			
Boron	0.992	0.0400	0.0064	mg/L	1.0000	0.126	87	75-125			
Cadmium	0.0951	0.0010	0.00007	mg/L	0.10000	ND	95	75-125			
Calcium	13.1	2.50	0.155	mg/L	1.0000	10.9	221	75-125			QM-02
Chromium	0.100	0.0100	0.0009	mg/L	0.10000	0.0029	97	75-125			
Cobalt	0.0949	0.0100	0.0005	mg/L	0.10000	ND	95	75-125			
Copper	0.0914	0.0050	0.0005	mg/L	0.10000	ND	91	75-125			
Lead	0.0921	0.0050	0.0001	mg/L	0.10000	ND	92	75-125			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125			
Nickel	0.0955	0.0050	0.0006	mg/L	0.10000	0.0031	92	75-125			
Selenium	0.0993	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.0968	0.0100	0.0005	mg/L	0.10000	ND	97	75-125			



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 10, 2016

Report No.: AZJ0763

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100807 - EPA 3005A											
Matrix Spike (6100807-MS1)			Source: AZJ0763-05			Prepared & Analyzed: 10/31/16					
Thallium	0.0961	0.0010	0.0002	mg/L	0.10000	ND	96	75-125			
Vanadium	0.0983	0.0100	0.0071	mg/L	0.10000	ND	98	75-125			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0044	98	75-125			
Lithium	0.0901	0.0500	0.0021	mg/L	0.10000	0.0024	88	75-125			
Matrix Spike Dup (6100807-MSD1)			Source: AZJ0763-05			Prepared & Analyzed: 10/31/16					
Antimony	0.0988	0.0030	0.0008	mg/L	0.10000	0.0013	97	75-125	1	20	
Arsenic	0.0939	0.0050	0.0016	mg/L	0.10000	ND	94	75-125	3	20	
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0317	94	75-125	3	20	
Beryllium	0.0868	0.0030	0.00008	mg/L	0.10000	0.0001	87	75-125	4	20	
Boron	0.993	0.0400	0.0064	mg/L	1.0000	0.126	87	75-125	0.1	20	
Cadmium	0.0957	0.0010	0.00007	mg/L	0.10000	ND	96	75-125	0.6	20	
Calcium	12.2	2.50	0.155	mg/L	1.0000	10.9	130	75-125	7	20	QM-02
Chromium	0.0995	0.0100	0.0009	mg/L	0.10000	0.0029	97	75-125	0.6	20	
Cobalt	0.0947	0.0100	0.0005	mg/L	0.10000	ND	95	75-125	0.2	20	
Copper	0.0917	0.0050	0.0005	mg/L	0.10000	ND	92	75-125	0.3	20	
Lead	0.0939	0.0050	0.0001	mg/L	0.10000	ND	94	75-125	2	20	
Molybdenum	0.0975	0.0100	0.0017	mg/L	0.10000	ND	97	75-125	4	20	
Nickel	0.0951	0.0050	0.0006	mg/L	0.10000	0.0031	92	75-125	0.4	20	
Selenium	0.0980	0.0100	0.0010	mg/L	0.10000	ND	98	75-125	1	20	
Silver	0.0961	0.0100	0.0005	mg/L	0.10000	ND	96	75-125	0.8	20	
Thallium	0.0978	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	2	20	
Vanadium	0.0990	0.0100	0.0071	mg/L	0.10000	ND	99	75-125	0.7	20	
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0044	99	75-125	0.6	20	
Lithium	0.0927	0.0500	0.0021	mg/L	0.10000	0.0024	90	75-125	3	20	
Post Spike (6100807-PS1)			Source: AZJ0763-05			Prepared & Analyzed: 10/31/16					
Antimony	95.7			ug/L	100.00	1.31	94	80-120			
Arsenic	98.4			ug/L	100.00	0.0853	98	80-120			
Barium	128			ug/L	100.00	31.7	96	80-120			
Beryllium	88.2			ug/L	100.00	0.116	88	80-120			
Boron	1030			ug/L	1000.0	126	90	80-120			
Cadmium	97.3			ug/L	100.00	0.0209	97	80-120			
Calcium	12100			ug/L	1000.0	10900	124	80-120			QM-02
Chromium	104			ug/L	100.00	2.88	101	80-120			
Cobalt	98.1			ug/L	100.00	0.0395	98	80-120			
Copper	96.7			ug/L	100.00	0.119	97	80-120			
Lead	97.7			ug/L	100.00	0.0548	98	80-120			
Molybdenum	105			ug/L	100.00	0.225	105	80-120			
Nickel	99.0			ug/L	100.00	3.07	96	80-120			



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November 10, 2016

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100807 - EPA 3005A											
Post Spike (6100807-PS1)				Source: AZJ0763-05			Prepared & Analyzed: 10/31/16				
Selenium	101			ug/L	100.00	-0.0536	101	80-120			
Silver	97.6			ug/L	100.00	0.0383	98	80-120			
Thallium	99.8			ug/L	100.00	0.207	100	80-120			
Vanadium	103			ug/L	100.00	1.79	101	80-120			
Zinc	109			ug/L	100.00	4.45	104	80-120			
Lithium	92.6			ug/L	100.00	2.39	90	80-120			
Batch 6100823 - EPA 7470A											
Blank (6100823-BLK1)				Prepared & Analyzed: 11/01/16							
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100823-BS1)				Prepared & Analyzed: 11/01/16							
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3		93	80-120			
Matrix Spike (6100823-MS1)				Source: AZJ0760-05				Prepared & Analyzed: 11/01/16			
Mercury	0.00230	0.00050	0.000041	mg/L	2.5000E-3	ND	92	75-125			
Matrix Spike Dup (6100823-MSD1)				Source: AZJ0760-05				Prepared & Analyzed: 11/01/16			
Mercury	0.00228	0.00050	0.000041	mg/L	2.5000E-3	ND	91	75-125	0.7	20	
Post Spike (6100823-PS1)				Source: AZJ0760-05				Prepared & Analyzed: 11/01/16			
Mercury	1.63			ug/L	1.6667	-0.0558	101	80-120			
Batch 6110037 - EPA 7470A											
Blank (6110037-BLK1)				Prepared & Analyzed: 11/02/16							
Mercury	ND	0.00050	0.000041	mg/L							



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110037 - EPA 7470A											
LCS (6110037-BS1)						Prepared & Analyzed: 11/02/16					
Mercury	0.00255	0.00050	0.000041	mg/L	2.5000E-3		102	80-120			
Matrix Spike (6110037-MS1)						Source: AZJ0785-03 Prepared & Analyzed: 11/02/16					
Mercury	0.00256	0.00050	0.000041	mg/L	2.5000E-3	ND	102	75-125			
Matrix Spike Dup (6110037-MSD1)						Source: AZJ0785-03 Prepared & Analyzed: 11/02/16					
Mercury	0.00250	0.00050	0.000041	mg/L	2.5000E-3	ND	100	75-125	2	20	
Post Spike (6110037-PS1)						Source: AZJ0785-03 Prepared & Analyzed: 11/02/16					
Mercury	1.74			ug/L	1.6667	0.00074	104	80-120			



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Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
- BRL** - Not Detected at levels equal to or greater than the RL
- RL** - Reporting Limit **MDL** - Method Detection Limit
- SOP** - Method run per Pace Standard Operating Procedure
- CFU** - Colony Forming Units
- DF** - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-10** MS and/or MSD recoveries not within Quality Control Acceptance criteria. See Case Narrative.
- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-505-7239		CC: Maria Padilla Heath McCorkle	
REPORT TO: Joju Abraham		PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3	
REQUESTED COMPLETION DATE:		PROJECT #: Phase II CCR & State D&O		PRESERVATION: 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/NaAc, ≤6°C 6 - Na ₂ S ₂ O ₅ , ≤6°C 7 - ≤6°C not frozen	
Collection DATE M/D/Y	Collection TIME	MATRIX CODE*	C O M P	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED
10/25/16	1210	GW	✓	ARGWA-3	3
10/25/16	0925	GW	✓	ARGWA-5	3
10/25/16	1150	GW	✓	ARGWA-13	3
10/25/16	1445	GW	✓	ARGWA-14	3
10/25/16	1525	GW	✓	ARGWC-7	3
10/25/16	1320	GW	✓	ARGWC-9	3
10/25/16	1415	GW	✓	ARGWC-10	3
10/25/16	1635	GW	✓	ARGWC-16	3
10/25/16	1805	GW	✓	ARGWC-17	3
10/25/16	1840	W	✓	FB-1-10-25-16	3
10/25/16	—	GW	✓	DUP-1	3

SAMPLED BY AND TITLE C. Parker - B. Reynolds (Ac)	DATE/TIME 10/26/16 0845	RELINQUISHED BY: M. Par	DATE/TIME 10/27/16 0910
RECEIVED BY LAB J. C. Blakely	DATE/TIME 10/26/16 0910	RELINQUISHED BY: M. Par	DATE/TIME 10/27/16 0910

LAB #: A250763	DATE/TIME 10/27/16 0910	CLIENT OTHER FS
Entered into LIMS: C.H.	DATE/TIME: 10/27/16 0910	COURIER # of Coolers

CONTAINER TYPE	ANALYSIS REQUESTED	CONTAINER TYPE	ANALYSIS REQUESTED
P - PLASTIC	3	P - PLASTIC	3
A - AMBER GLASS	3	P - PLASTIC	7
G - CLEAR GLASS	3	P - PLASTIC	3
V - VOA VIAL			
S - STERILE			
O - OTHER			

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
G - CLEAR GLASS	3 - HNO ₃
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/NaAc, ≤6°C
O - OTHER	6 - Na ₂ S ₂ O ₅ , ≤6°C
	7 - ≤6°C not frozen

MATRIX CODES:	REMARKS/ADDITIONAL INFORMATION
DW - DRINKING WATER	S - SOIL
MW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-505-7239 REPORT TO: Jolu Abraham REQUESTED COMPLETION DATE: PO #: Health McConkle laburch@southernco.com PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O		CONTAINER TYPE: PRESERVATION # of C O N T A I N E R S		ANALYSIS REQUESTED Metals App. III & IV (EPA 60207470) Silver (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SM-846 9315/9320)		CONTAINER TYPE: PRESERVATION P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER *MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT REMARKS/ADDITIONAL INFORMATION	
Collection DATE 10/10/16 Collection TIME 1350 MATRIX CODE GW SAMPLE IDENTIFICATION ✓ AR6WC-18	4	1	1	1	2	12	
Collection DATE 10/26/16 Collection TIME 1520 MATRIX CODE GW SAMPLE IDENTIFICATION ✓ AR6WC-15	3	1	1	1	1	13	
Collection DATE 10/26/16 Collection TIME 1450 MATRIX CODE GW SAMPLE IDENTIFICATION ✓ AR6WC-8	3	1	1	1	1	14	
Collection DATE 10/26/16 Collection TIME 1610 MATRIX CODE W SAMPLE IDENTIFICATION ✓ EB-2-10-26-16	3	1	1	1	1	15	
SAMPLED BY AND TITLE: C. Harker, R. Walker ACC RECEIVED BY:		RELINQUISHED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	LAB #:	FOR LAB USE ONLY
DATE/TIME 10/26/16 1645 DATE/TIME 10/27/16 0910		RELINQUISHED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	AZ70763	Entered into LIMS: 10/27/16
RECEIVED BY/LAB: C. Harker, R. Walker Yes No NA (Yes) No NA DATE/TIME 10/27/16 0910 Telephone: 770-734-4200 Custody Seal: Broken Not Present		SAMPLE SHIPPED VIA UPS FED-EX USPS COURIER # of Copies	DATE/TIME 10/27/16 0910 DATE/TIME OTHER FS	Tracking #:			

Plant Arkwright - Ash Pond 2 COC.xlsx



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 11/10/2016 9:33:32AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 10/27/16 09:10

Work Order: AZJ0763

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 15

#Containers: 46

Minimum Temp(C): 1.0

Maximum Temp(C): 1.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

December 29, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Arkwright
Pace Project No.: 30200854

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report replaces the December 5, 2016 report. Reissued 12/29/16 to reflect corrected Sample ID due to login error.

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

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Arkwright
Pace Project No.: 30200854

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235

Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Arkwright

Pace Project No.: 30200854

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200854001	ARGWA-3	Water	10/25/16 12:10	10/28/16 10:50
30200854002	ARGWA-5	Water	10/25/16 09:25	10/28/16 10:50
30200854003	ARGWA-13	Water	10/25/16 11:50	10/28/16 10:50
30200854004	ARGWA-14	Water	10/25/16 14:45	10/28/16 10:50
30200854005	ARGWC-7	Water	10/25/16 15:25	10/28/16 10:50
30200854006	ARGWC-9	Water	10/25/16 13:20	10/28/16 10:50
30200854007	ARGWC-10	Water	10/25/16 14:15	10/28/16 10:50
30200854008	ARGWC-16	Water	10/25/16 16:35	10/28/16 10:50
30200854009	ARGWC-17	Water	10/25/16 18:05	10/28/16 10:50
30200854010	FB-1-10-25-16	Water	10/25/16 18:40	10/28/16 10:50
30200854011	Dup-1	Water	10/25/16 00:00	10/28/16 10:50
30200854012	ARGWC-18	Water	10/26/16 13:50	10/28/16 10:50
30200854013	ARGWC-15	Water	10/26/16 15:20	10/28/16 10:50
30200854014	ARGWC-8	Water	10/26/16 14:50	10/28/16 10:50
30200854015	EB-2-10-26-16	Water	10/26/16 16:10	10/28/16 10:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright
Pace Project No.: 30200854

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200854001	ARGWA-3	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854002	ARGWA-5	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854003	ARGWA-13	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854004	ARGWA-14	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854005	ARGWC-7	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854006	ARGWC-9	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854007	ARGWC-10	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854008	ARGWC-16	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854009	ARGWC-17	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854010	FB-1-10-25-16	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854011	Dup-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854012	ARGWC-18	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200854013	ARGWC-15	EPA 9315	LAL	1

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright
Pace Project No.: 30200854

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200854014	ARGWC-8	EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
		EPA 9315	LAL	1
		EPA 9320	JLW	1
30200854015	EB-2-10-26-16	Total Radium Calculation	CMC	1
		EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright
Pace Project No.: 30200854

Sample: ARGWA-3		Lab ID: 30200854001	Collected: 10/25/16 12:10	Received: 10/28/16 10:50	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0500 ± 0.0528 (0.188) C:96% T:NA	pCi/L	11/23/16 09:54	13982-63-3	
Radium-228	EPA 9320	0.273 ± 0.323 (0.674) C:62% T:81%	pCi/L	12/01/16 15:32	15262-20-1	
Total Radium	Total Radium Calculation	0.273 ± 0.376 (0.862)	pCi/L	12/02/16 15:51	7440-14-4	

Sample: ARGWA-5		Lab ID: 30200854002	Collected: 10/25/16 09:25	Received: 10/28/16 10:50	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0806 ± 0.0863 (0.170) C:96% T:NA	pCi/L	11/23/16 09:32	13982-63-3	
Radium-228	EPA 9320	0.0965 ± 0.390 (0.890) C:63% T:70%	pCi/L	12/01/16 15:32	15262-20-1	
Total Radium	Total Radium Calculation	0.177 ± 0.476 (1.06)	pCi/L	12/02/16 15:51	7440-14-4	

Sample: ARGWA-13		Lab ID: 30200854003	Collected: 10/25/16 11:50	Received: 10/28/16 10:50	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0206 ± 0.0696 (0.174) C:91% T:NA	pCi/L	11/23/16 09:32	13982-63-3	
Radium-228	EPA 9320	0.482 ± 0.290 (0.531) C:97% T:78%	pCi/L	12/01/16 15:32	15262-20-1	
Total Radium	Total Radium Calculation	0.503 ± 0.360 (0.705)	pCi/L	12/02/16 15:51	7440-14-4	

Sample: ARGWA-14		Lab ID: 30200854004	Collected: 10/25/16 14:45	Received: 10/28/16 10:50	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0855 ± 0.101 (0.206) C:85% T:NA	pCi/L	11/23/16 09:32	13982-63-3	
Radium-228	EPA 9320	1.04 ± 0.522 (0.911) C:67% T:74%	pCi/L	12/01/16 15:32	15262-20-1	
Total Radium	Total Radium Calculation	1.13 ± 0.623 (1.12)	pCi/L	12/02/16 15:51	7440-14-4	

Sample: ARGWC-7		Lab ID: 30200854005	Collected: 10/25/16 15:25	Received: 10/28/16 10:50	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0860 ± 0.123 (0.271) C:84% T:NA	pCi/L	11/23/16 09:33	13982-63-3	
Radium-228	EPA 9320	0.431 ± 0.390 (0.786) C:60% T:81%	pCi/L	12/01/16 14:42	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright
Pace Project No.: 30200854

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: ARGWC-7 Lab ID: 30200854005 Collected: 10/25/16 15:25 Received: 10/28/16 10:50 Matrix: Water PWS: Site ID: Sample Type:						
Total Radium	Total Radium Calculation	0.518 ± 0.513 (1.06)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: ARGWC-9 Lab ID: 30200854006 Collected: 10/25/16 13:20 Received: 10/28/16 10:50 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.0388 ± 0.0909 (0.215) C:86% T:NA	pCi/L	11/23/16 09:33	13982-63-3	
Radium-228	EPA 9320	0.354 ± 0.442 (0.936) C:62% T:72%	pCi/L	12/01/16 14:42	15262-20-1	
Total Radium	Total Radium Calculation	0.393 ± 0.533 (1.15)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: ARGWC-10 Lab ID: 30200854007 Collected: 10/25/16 14:15 Received: 10/28/16 10:50 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.0384 ± 0.0863 (0.204) C:86% T:NA	pCi/L	11/23/16 10:02	13982-63-3	
Radium-228	EPA 9320	0.290 ± 0.348 (0.732) C:60% T:85%	pCi/L	12/01/16 14:42	15262-20-1	
Total Radium	Total Radium Calculation	0.328 ± 0.434 (0.936)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: ARGWC-16 Lab ID: 30200854008 Collected: 10/25/16 16:35 Received: 10/28/16 10:50 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.301 ± 0.141 (0.179) C:97% T:NA	pCi/L	11/23/16 09:34	13982-63-3	
Radium-228	EPA 9320	1.27 ± 0.676 (1.18) C:52% T:63%	pCi/L	12/01/16 14:42	15262-20-1	
Total Radium	Total Radium Calculation	1.57 ± 0.817 (1.36)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: ARGWC-17 Lab ID: 30200854009 Collected: 10/25/16 18:05 Received: 10/28/16 10:50 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.0790 ± 0.0921 (0.187) C:84% T:NA	pCi/L	11/23/16 09:34	13982-63-3	
Radium-228	EPA 9320	0.596 ± 0.344 (0.636) C:99% T:77%	pCi/L	12/01/16 11:35	15262-20-1	
Total Radium	Total Radium Calculation	0.675 ± 0.436 (0.823)	pCi/L	12/02/16 15:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright
Pace Project No.: 30200854

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0228 ± 0.0829 (0.205) C:95% T:NA	pCi/L	11/23/16 09:34	13982-63-3	
Radium-228		EPA 9320	0.102 ± 0.427 (0.972) C:58% T:78%	pCi/L	12/01/16 11:35	15262-20-1	
Total Radium		Total Radium Calculation	0.125 ± 0.510 (1.18)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.155 ± 0.104 (0.164) C:89% T:NA	pCi/L	11/23/16 09:34	13982-63-3	
Radium-228		EPA 9320	0.231 ± 0.385 (0.837) C:55% T:84%	pCi/L	12/01/16 11:35	15262-20-1	
Total Radium		Total Radium Calculation	0.386 ± 0.489 (1.00)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0593 ± 0.0732 (0.150) C:97% T:NA	pCi/L	11/23/16 09:34	13982-63-3	
Radium-228		EPA 9320	0.547 ± 0.509 (1.04) C:52% T:81%	pCi/L	12/01/16 11:35	15262-20-1	
Total Radium		Total Radium Calculation	0.606 ± 0.582 (1.19)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.342 ± 0.158 (0.216) C:93% T:NA	pCi/L	11/23/16 09:34	13982-63-3	
Radium-228		EPA 9320	2.11 ± 0.657 (0.806) C:62% T:81%	pCi/L	12/01/16 11:36	15262-20-1	
Total Radium		Total Radium Calculation	2.45 ± 0.815 (1.02)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0727 ± 0.0899 (0.186) C:86% T:NA	pCi/L	11/23/16 09:35	13982-63-3	
Radium-228		EPA 9320	0.262 ± 0.296 (0.614) C:74% T:79%	pCi/L	12/01/16 11:36	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200854

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	0.335 ± 0.386 (0.800)	pCi/L	12/02/16 15:51	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0533 ± 0.0823 (0.181) C:88% T:NA	pCi/L	11/23/16 09:35	13982-63-3	
Radium-228	EPA 9320	1.48 ± 0.686 (1.17) C:56% T:75%	pCi/L	12/01/16 15:29	15262-20-1	
Total Radium	Total Radium Calculation	1.53 ± 0.768 (1.35)	pCi/L	12/02/16 15:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200854

QC Batch: 239636

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200854005, 30200854006, 30200854007, 30200854008, 30200854009, 30200854010, 30200854011, 30200854012, 30200854013, 30200854014, 30200854015

METHOD BLANK: 1177543

Matrix: Water

Associated Lab Samples: 30200854005, 30200854006, 30200854007, 30200854008, 30200854009, 30200854010, 30200854011, 30200854012, 30200854013, 30200854014, 30200854015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0971 ± 0.0940 (0.182) C:96% T:NA	pCi/L	11/23/16 09:33	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200854

QC Batch:	239887	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	30200854001, 30200854002, 30200854003, 30200854004, 30200854005, 30200854006, 30200854007, 30200854008, 30200854009, 30200854010, 30200854011, 30200854012, 30200854013, 30200854014		

METHOD BLANK:	1178566	Matrix:	Water
Associated Lab Samples:	30200854001, 30200854002, 30200854003, 30200854004, 30200854005, 30200854006, 30200854007, 30200854008, 30200854009, 30200854010, 30200854011, 30200854012, 30200854013, 30200854014		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.141 ± 0.414 (0.929) C:64% T:78%	pCi/L	12/01/16 11:35	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200854

QC Batch: 239888

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200854015

METHOD BLANK: 1178568

Matrix: Water

Associated Lab Samples: 30200854015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.494 ± 0.321 (0.600) C:92% T:73%	pCi/L	12/01/16 15:31	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright

Pace Project No.: 30200854

QC Batch: 239635 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200854001, 30200854002, 30200854003, 30200854004

METHOD BLANK: 1177542 Matrix: Water

Associated Lab Samples: 30200854001, 30200854002, 30200854003, 30200854004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0142 ± 0.0608 (0.157) C:97% T:NA	pCi/L	11/23/16 10:00	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Arkwright

Pace Project No.: 30200854

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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WO#: 30200854



Chain of Custody

Results Requested By: 11/28/2016

Owner Received Date:

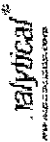
Workorder Name: Plant Arkwright

Workorder: AZJ0763

Report To:	Subcontract To:	Requested Analysis									
Betsy McDaniel Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092 Phone (770)-734-4200	Pace - Pittsburgh 1638 Roseytown Road Stes. 2,3,4 Greensburg, PA 15601 Phone (724) 850-5600	Radium 226, 228, Total									
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	H	N	NO3	Preserved Containers	LAB USE ONLY	
1	ARGWA-3	G	10/25/2016 12:10	AZJ0763-01	GW	1				001	
2	ARGWA-5	G	10/25/2016 9:25	AZJ0763-02	GW	1				002	
3	ARGWA-13	G	10/25/2016 11:50	AZJ0763-03	GW	1				003	
4	ARGWA-14	G	10/25/2016 14:45	AZJ0763-04	GW	1				004	
5	ARGWC-7	G	10/25/2016 15:25	AZJ0763-05	GW	1				005	
6	ARGWC-9	G	10/25/2016 13:20	AZJ0763-06	GW	1				006	
7	ARGWC-10	G	10/25/2016 14:15	AZJ0763-07	GW	1				007	
8	ARGWC-16	G	10/25/2016 16:35	AZJ0763-08	GW	1				008	
9	ARGWC-17	G	10/25/2016 18:05	AZJ0763-09	GW	1				009	
10	FB-1-10-25-16	G	10/25/2016 18:40	AZJ0763-10	W	1				010	
Transfers Released By					Date/Time	Received By	Date/Time	Comments			
						<i>Michael Lambert</i>	10-29-16				

Cooler Temperature on Receipt N/A °C Custody Seal Y or (N) Received on Ice Y or (N) Sample Intact (Y) or (N)

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC. This chain of custody is considered complete as is since this information is available in the owner laboratory.



Chain of Custody

Workorder: AZJ0763 Plant Arkwright Owner Received Date: Results Requested By: 11/28/2016

Report To:	Subcontract To:		Requested Analysis	
Betsy McDaniel	Pace - Pittsburgh			
Pace Analytical Atlanta	1638 Roseytown Road			
110 Technology Parkway	Stes. 2,3,4			
Peachtree Corners, GA 30092	Greensburg, PA 15601			
Phone (770)-734-4200	Phone (724) 850-5600			

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO ₃	Preserved Containers	Radium 226, 228, Total	LAB USE ONLY
11	Dup-1	G	10/25/2016 0:00	AZJ0763-11	GW	1		X	011
12	ARGWC-18	G	10/26/2016 13:50	AZJ0763-12	GW	2		X	012
13	ARGWC-15	G	10/26/2016 15:20	AZJ0763-13	GW	1		X	013
14	ARGWC-8	G	10/26/2016 14:50	AZJ0763-14	GW	1		X	014
15	EB-2-10-26-16	G	10/26/2016 16:10	AZJ0763-15	W	1		X	015
16									
17									
18									
19									
20									

Transfers Released By	Date/Time	Received By	Date/Time	Comments
		M. [Signature]	10-28-16 1050	

Cooler Temperature on Receipt N/A °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC. This chain of custody is considered complete as is since this information is available in the owner laboratory.

30200854

PAGE: 1 OF 1

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com



CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B 10185 Atlanta, GA 30308 404-505-7239 REPORT TO: Joji Abraham CC: Maria Padilla Heath McCorkle REQUESTED COMPLETION DATE: laburch@southernco.com PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O		ANALYSIS REQUESTED P P P P P P P P P P 3 3 3 7 3 # of CONTAINERS Metals App. III & IV (EPA 6020/7470) Silver (EPA 8020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)		CONTAINER TYPE: P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER PRESERVATION 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤16°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₈ , ≤6°C 7 - ≤6°C not frozen *MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT REMARKS/ADDITIONAL INFORMATION			
Collection DATE M/D/Y	Collection TIME	MATRIX CODE*	COMPARISON C O M P	SAMPLE IDENTIFICATION	RELINQUISHED BY: [Signature]	DATE/TIME DATE/TIME	LAB #: AZ50763 Entered into LIMS: CHH Tracking #:
10/25/16	1210	GW	✓	ARGWA-3	1	10/27/16 0910	
10/25/16	0925	GW	✓	ARGWA-5	1		
10/25/16	1150	GW	✓	ARGWA-13	1		
10/25/16	1445	GW	✓	ARGWA-14	1		
10/25/16	1525	GW	✓	ARGWC-7	1		
10/25/16	1320	GW	✓	ARGWC-9	1		
10/25/16	1415	GW	✓	ARGWC-10	1		
10/25/16	1635	GW	✓	ARGWC-16	1		
10/25/16	1805	GW	✓	ARGWC-17	1		
10/25/16	1840	W	✓	FB-1-10-25-16	1		
10/25/16	—	GW	✓	DUP-1	1		
SAMPLED BY AND TITLE: C. Parker, B. Reynolds (sic)		DATE/TIME: 10/25/16 0845		RELINQUISHED BY: [Signature]		DATE/TIME: 10/27/16 0910	
RECEIVED BY: [Signature]		DATE/TIME: 10/27/16 0910		RELINQUISHED BY: [Signature]		DATE/TIME:	
RECEIVED BY LAB: [Signature]		DATE/TIME: 10/27/16 0910		RELINQUISHED BY: [Signature]		DATE/TIME:	
Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

Plant Arkwright - Ash Pond 3 COC.xlsx

Sample Condition Upon Receipt Pittsburgh



Client Name: Pace Georgia Project # 30200854

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 51001025

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 10-28-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>			1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>			2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>			3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>			4.
Sample Labels match COC:	<input checked="" type="checkbox"/>			5.
-Includes date/time/ID/Analysis Matrix: <u>W4</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>			6.
Short Hold Time Analysis (<72hr remaining):		<input checked="" type="checkbox"/>		7.
Rush Turn Around Time Requested:		<input checked="" type="checkbox"/>		8.
Sufficient Volume:				9.
Correct Containers Used:	<input checked="" type="checkbox"/>			10.
-Pace Containers Used:		<input checked="" type="checkbox"/>		
Containers Intact:				11.
Filtered volume received for Dissolved tests			<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed: <u>ML</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			<input checked="" type="checkbox"/>	14.
Trip Blank Present:			<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present			<input checked="" type="checkbox"/>	
Rad Aqueous Samples Screened > 0.5 mrem/hr		<input checked="" type="checkbox"/>		Initial when completed: <u>ML</u> Date: <u>10-28-16</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



www.pacehs.com

Test: Ra-226
Analyst: LAL
Date: 11/15/2016
Worklist: 32364
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID: 1177542
MB concentration: 0.014
MB Counting Uncertainty: 0.061
MB MDC: 0.157
MB Numerical Performance Indicator: 0.46
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCSD (Y or N)? N
LCS32364 LCSD32364

Count Date: 11/23/2016
Spike I.D.: 16-026
Spike Concentration (pCi/mL): 44.674
Volume Used (mL): 0.10
Aliquot Volume (L, g, F): 0.504
Target Conc. (pCi/L, g, F): 8.872
Uncertainty (Calculated): 0.417
Result (pCi/L, g, F): 8.377
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.659
Numerical Performance Indicator: -1.24
Percent Recovery: 94.42%
Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: 30200847011
Duplicate Sample I.D.: 30200847011DUP

Sample Result (pCi/L, g, F): 1.070
Sample Result Counting Uncertainty (pCi/L, g, F): 0.224
Sample Duplicate Result (pCi/L, g, F): 0.868
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.217
Are sample and/or duplicate results below MDC? See Below ##
Duplicate Numerical Performance Indicator: 1.270
Duplicate RPD: 20.84%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
30200847011
30200847011DUP

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc.(pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

MSD 12/15/16

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 11/16/2016
Worklist: 32365
Matrix: DW

Method Blank Assessment

MB Sample ID: 1177543
MB Concentration: 0.097
MB Counting Uncertainty: 0.093
MB MDC: 0.182
MB Numerical Performance Indicator: 2.05
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCS (Y or N)?	Y
LCS32365	LCS32365
Count Date:	11/25/2016
Spike I.D.:	16-026
Spike Concentration (pCi/mL):	44.674
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.510
Target Conc. (pCi/L, g, F):	8.764
Uncertainty (Calculated):	0.412
Result (pCi/L, g, F):	7.893
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.597
Numerical Performance Indicator:	-2.80
Percent Recovery:	90.07%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: LCS32365
Duplicate Sample I.D.: LCS32365
Sample Result (pCi/L, g, F): 7.931
Sample Duplicate Result (pCi/L, g, F): 0.585
Sample Duplicate Result (pCi/L, g, F): 7.893
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.597
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 0.088
Duplicate RPD: 0.47%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Oppm 12/17/16

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 11/28/2016
Worklist: 32409
Matrix: DW

Method Blank Assessment	
MB Sample ID	1178566
MB concentration:	0.141
M/B Counting Uncertainty:	0.413
MB MDC:	0.929
MB Numerical Performance Indicator:	0.67
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	12/1/2016
Spike I.D.:	16-027
Spike Concentration (pCi/mL):	25.937
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.808
Target Conc. (pCi/L, g, F):	6.419
Uncertainty (Calculated):	0.462
Result (pCi/L, g, F):	8.549
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.800
Numerical Performance Indicator:	4.52
Percent Recovery:	133.18%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30200854012
Duplicate Sample I.D.:	30200854012DUP
Sample Result Counting Uncertainty (pCi/L, g, F):	0.547
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.500
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.173
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	-1.873
Duplicate RPD:	72.78%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail**

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

OK 12/15/16

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 11/28/2016
Worklist: 32410
Matrix: DW

Method Blank Assessment	
MB Sample ID	1178568
MB Concentration:	0.494
M/B Counting Uncertainty:	0.308
MB MDC:	0.600
MB Numerical Performance Indicator:	3.14
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		N
		LCS32410
Count Date:	12/1/2016	LCS32410
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.936	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.806	
Target Conc. (pCi/L, g, F):	6.434	
Uncertainty (Calculated):	0.463	
Result (pCi/L, g, F):	6.760	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.71	
Numerical Performance Indicator:	105.08%	
Percent Recovery:	0.71	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment		N
		LCS32410
Sample I.D.:	30201007002	
Duplicate Sample I.D.:	30201007002DUP	
Sample Result (pCi/L, g, F):	0.528	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.409	
Sample Duplicate Result (pCi/L, g, F):	0.557	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.411	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.097	
Duplicate RPD:	5.29%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature/initials

Product Name: Low-Flow System

Date: 2016-10-25 12:12:34

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright
Site Name ARGWA-3
Latitude 32° 55' 56.74"
Longitude -83° -42' -27.33"
Sonde SN 466086
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 39 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.27 ft
Screen Length 10 ft
Depth to Water 36.04 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.5774637 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 18.7 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%	+/- 0		+/- 0.2	+/- 0
Last 5	11:42:10	9035.88	21.71	5.92	87.80	6.49	36.13	6.41	101.67
Last 5	11:47:12	9337.88	21.77	5.92	87.82	5.37	36.13	6.42	101.72
Last 5	11:52:12	9637.88	22.00	5.92	88.16	5.14	36.13	6.42	102.05
Last 5	11:57:12	9937.87	22.17	5.92	88.04	5.01	36.13	6.41	102.13
Last 5	12:07:15	10540.86	22.72	5.92	88.07	4.85	36.13	6.42	102.90
Variance 0			0.23	0.00	0.34			0.00	0.33
Variance 1			0.18	-0.00	-0.13			-0.01	0.08
Variance 2			0.55	-0.00	0.03			0.01	0.78

Notes

Collected at 12:10. Sunny, 70s

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 09:25:06

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 55' 58.13"
Longitude -83° -42' -39.18"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 32 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.10 ft
Screen Length 10 ft
Depth to Water 24.43 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 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			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Last 5	09:02:15	600.02	17.63	5.96	87.20	4.52	24.54	6.01	169.68
Last 5	09:07:15	900.02	17.72	5.96	87.01	5.83	24.54	6.03	169.63
Last 5	09:12:15	1200.02	17.72	5.96	86.70	3.59	24.54	6.03	169.68
Last 5	09:17:14	1500.00	17.85	5.96	86.58	3.16	24.54	6.02	170.10
Last 5	09:22:14	1800.00	17.93	5.96	86.08	2.66	24.54	6.06	171.08
Variance 0			-0.00	-0.01	-0.32			0.00	0.05
Variance 1			0.13	0.00	-0.12			-0.01	0.43
Variance 2			0.08	0.00	-0.50			0.03	0.98

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-24 18:09:27

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 55' 59.81"
Longitude -83° -42' -39.71"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 37 ft

Pump placement from TOC 26 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.33 ft
Screen Length 10 ft
Depth to Water 18.51 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 12 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			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Last 5	17:48:09	3001.99	20.57	5.99	175.60	11.00	18.65	3.60	200.04
Last 5	17:53:09	3301.99	20.25	5.99	176.00	9.31	18.65	3.63	197.61
Last 5	17:58:09	3602.00	20.32	5.99	176.61	7.17	18.65	3.60	195.54
Last 5	18:03:09	3902.00	20.39	5.99	175.50	5.11	18.65	3.60	194.04
Last 5	18:08:09	4202.00	20.21	5.99	175.73	4.84	18.65	3.59	192.44
Variance 0			0.07	-0.00	0.61			-0.03	-2.07
Variance 1			0.07	0.00	-1.11			-0.00	-1.50
Variance 2			-0.18	-0.00	0.23			-0.02	-1.60

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 11:48:24

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 54' 53.2"
Longitude -83° -42' -27.84"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 42 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 48.27 ft
Screen Length 10 ft
Depth to Water 26.15 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 1000	pH +/- 0.1	SpCond µS/cm +/- 5%	Turb NTU +/- 1000	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 1000
Stabilization									
Last 5	11:25:41	1500.01	18.57	5.80	1602.08	0.96	26.51	0.56	190.35
Last 5	11:30:41	1800.01	18.61	5.80	1605.67	0.72	26.51	0.58	187.50
Last 5	11:35:42	2101.01	18.65	5.80	1599.47	0.68	26.51	0.65	182.76
Last 5	11:40:43	2402.00	18.69	5.80	1593.97	0.85	26.51	0.63	180.83
Last 5	11:45:43	2702.00	18.61	5.80	1596.17	0.79	26.51	0.59	181.21
Variance 0			0.04	0.00	-6.20			0.07	-4.74
Variance 1			0.04	0.00	-5.50			-0.02	-1.93
Variance 2			-0.08	-0.00	2.20			-0.04	0.38

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 14:49:36

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 54 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.24 ft
Screen Length 10 ft
Depth to Water 43.75 ft

Pumping Information:

Final Pumping Rate 80 mL/min
Total System Volume 0.6488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 30 in
Total Volume Pumped 2.8 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%	+/- 0		+/- 0.2	+/- 0
Last 5	14:23:01	300.03	22.71	6.93	881.18	2.10	45.10	1.31	-70.60
Last 5	14:28:01	600.02	22.98	6.93	878.47	2.48	45.30	0.98	-72.95
Last 5	14:33:01	900.02	23.05	6.93	869.34	1.91	45.60	0.86	-74.23
Last 5	14:38:01	1200.00	23.02	6.94	863.09	1.87	45.80	0.80	-74.34
Last 5	14:43:01	1500.01	22.89	6.92	845.58	2.68	46.20	0.80	-72.85
Variance 0			0.07	-0.00	-9.13			-0.12	-1.27
Variance 1			-0.02	0.00	-6.25			-0.06	-0.11
Variance 2			-0.13	-0.02	-17.51			0.00	1.49

Notes

Collected at 14:45. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 15:24:34

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 55' 30.34"
Longitude -83° -42' -27.86"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 53 ft

Pump placement from TOC 42 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.27 ft
Screen Length 10 ft
Depth to Water 26.95 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 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			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Last 5	14:56:59	900.02	20.30	5.81	207.85	0.43	27.11	2.76	214.60
Last 5	15:01:59	1200.02	20.44	5.81	207.86	0.46	27.11	2.70	211.36
Last 5	15:12:00	1800.99	21.02	5.82	207.68	0.34	27.11	2.68	212.71
Last 5	15:17:00	2100.99	21.15	5.82	208.17	0.32	27.11	2.59	206.96
Last 5	15:22:00	2401.00	21.33	5.81	206.77	0.34	27.11	2.61	206.14
Variance 0			0.58	0.01	-0.18			-0.02	1.35
Variance 1			0.13	-0.00	0.49			-0.09	-5.76
Variance 2			0.18	-0.00	-1.39			0.02	-0.82

Notes

75 degrees and clear. Sampled at 15:25

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-26 14:49:42

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 55' 30.87"
Longitude -83° -42' -27.14"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 48 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 27.78 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.1 in
Total Volume Pumped 5.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Stabilization									
Last 5	14:26:28	1800.74	22.94	6.44	484.10	6.00	28.00	0.32	255.12
Last 5	14:31:29	2101.74	22.63	6.44	485.36	5.70	28.00	0.34	235.20
Last 5	14:36:29	2401.74	22.67	6.44	486.31	5.40	28.00	0.34	218.54
Last 5	14:41:29	2701.74	22.51	6.44	484.98	5.30	28.00	0.32	203.69
Last 5	14:46:29	3001.75	22.40	6.44	486.86	3.70	28.00	0.34	192.45
Variance 0			0.04	-0.00	0.95			0.00	-16.66
Variance 1			-0.16	-0.00	-1.33			-0.01	-14.85
Variance 2			-0.11	0.00	1.88			0.02	-11.24

Notes

Sampled at 14:50 sunny 70's

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 13:18:06

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 55' 54.74"
Longitude -83° -42' -38.32"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 32 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.05 ft
Screen Length 10 ft
Depth to Water 23.72 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 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			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Last 5	12:56:10	600.02	20.41	5.92	90.14	3.55	23.80	5.53	249.26
Last 5	13:01:10	900.02	20.48	5.92	89.73	1.78	23.80	5.43	241.50
Last 5	13:06:10	1200.02	20.35	5.92	89.94	2.40	23.80	5.44	235.57
Last 5	13:11:10	1500.01	20.44	5.92	89.59	1.97	23.80	5.44	230.92
Last 5	13:16:10	1800.01	20.49	5.92	89.50	2.24	23.80	5.22	227.61
Variance 0			-0.13	-0.00	0.21			0.01	-5.93
Variance 1			0.09	0.00	-0.35			0.00	-4.66
Variance 2			0.05	-0.00	-0.09			-0.22	-3.30

Notes

72 degrees and clear. Sample at 13:20

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 14:15:36

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 56' 1.69"
Longitude -83° -42' -40.28"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 43 ft

Pump placement from TOC 32 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.27 ft
Screen Length 10 ft
Depth to Water 24.05 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.2819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Last 5	13:54:13	600.02	19.37	6.03	108.02	8.27	24.30	4.16	211.91
Last 5	13:59:13	900.02	19.41	6.03	107.20	3.58	24.30	4.20	208.44
Last 5	14:04:13	1200.02	19.41	6.03	107.29	3.15	24.30	4.43	198.55
Last 5	14:09:13	1500.02	19.41	6.02	107.32	4.06	24.30	4.38	194.20
Last 5	14:14:22	1809.02	19.42	6.02	106.92	3.76	24.30	4.15	193.24
Variance 0			0.00	-0.00	0.09			0.23	-9.89
Variance 1			0.00	-0.01	0.03			-0.05	-4.35
Variance 2			0.01	-0.00	-0.40			-0.23	-0.96

Notes

74 degrees and clear. Sampled at 14:15

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 18:14:44

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 42.50 ft

Pump placement from TOC 37.50 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.53 ft
Screen Length 10 ft
Depth to Water 30.04 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.5796955 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 84 in
Total Volume Pumped 11.9 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	17:50:23	6603.93	19.68	6.18	179.97	27.00	34.10	4.22	88.35
Last 5	17:55:23	6903.93	19.29	6.17	180.08	25.00	34.80	4.07	87.91
Last 5	18:00:38	7218.92	19.16	6.18	183.51	91.00	35.90	4.19	88.47
Last 5	18:05:38	7518.92	19.12	6.20	191.36	108.00	36.40	4.25	87.62
Last 5	18:10:38	7818.90	19.08	6.25	204.16	--	--	4.09	86.88
Variance 0			-0.13	0.01	3.43			0.12	0.57
Variance 1			-0.04	0.02	7.85			0.06	-0.86
Variance 2			-0.04	0.05	12.80			-0.16	-0.74

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-26 16:15:42

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 37 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.53 ft
Screen Length 10 ft
Depth to Water 30.60 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5774637 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 54 in
Total Volume Pumped 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%	+/- 0		+/- 0.2	+/- 0
Last 5	16:12:07	300.02	21.18	6.23	183.84	11.40	34.50	5.42	114.00
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Collected at 15:20

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 16:35:03

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 55' 30.34"
Longitude -83° -42' -27.86"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.50 ft
Screen Length 10 ft
Depth to Water 23.50 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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
			+/- 1000	+/- 0.1	+/- 5%	+/- 1000		+/- 10%	+/- 1000
Stabilization									
Last 5	16:13:40	600.02	20.95	5.29	485.54	0.75	23.53	1.06	245.75
Last 5	16:18:40	900.02	20.93	5.29	484.64	0.53	23.53	1.03	251.25
Last 5	16:23:40	1200.01	20.90	5.29	484.55	0.58	23.53	1.02	263.29
Last 5	16:28:40	1500.01	20.88	5.29	480.55	0.47	23.53	1.01	279.80
Last 5	16:33:40	1800.02	20.93	5.29	480.14	0.40	23.53	1.00	295.98
Variance 0			-0.02	0.00	-0.09			-0.01	12.04
Variance 1			-0.03	0.00	-4.00			-0.01	16.52
Variance 2			0.05	-0.00	-0.41			-0.01	16.17

Notes

76 degrees and clear. Sampled at 16:35

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-25 18:07:20

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Background GW Monitoring Event #2
Site Name Plant Arkwright
Latitude 32° 54' 56.17"
Longitude -83° -42' -31.8"
Sonde SN 408206
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 39 ft

Pump placement from TOC 27 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 23.97 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2640735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 1000	pH +/- 0.1	SpCond µS/cm +/- 5%	Turb NTU +/- 1000	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 1000
Stabilization									
Last 5	17:33:58	1800.02	23.92	5.23	204.86	12.00	24.39	0.72	220.21
Last 5	17:38:58	2099.94	23.93	5.28	209.49	9.78	24.42	0.64	212.55
Last 5	17:53:58	2999.94	24.14	5.39	221.53	4.85	24.44	0.44	205.21
Last 5	17:58:59	3300.94	23.52	5.43	223.77	2.33	24.45	0.40	192.28
Last 5	18:04:02	3603.94	23.48	5.45	225.64	2.04	24.47	0.39	187.51
Variance 0			0.21	0.11	12.04			-0.20	-7.35
Variance 1			-0.62	0.04	2.25			-0.05	-12.93
Variance 2			-0.04	0.02	1.87			-0.00	-4.77

Notes

74 degrees and clear. Sampled at 18:05

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-26 13:52:14

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 45 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.64 ft
Screen Length 10 ft
Depth to Water 30.14 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6176346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 39 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%	+/- 0		+/- 0.2	+/- 0
Last 5	13:26:17	14121.80	22.38	6.03	587.66	11.00	30.60	0.08	82.05
Last 5	13:31:17	14421.83	22.48	6.03	590.52	9.44	30.60	0.09	82.90
Last 5	13:36:26	14730.80	22.73	6.03	588.11	10.10	30.60	0.08	83.03
Last 5	13:41:26	15030.80	22.54	6.03	587.36	10.30	30.60	0.08	84.20
Last 5	13:46:26	15330.79	22.54	6.03	589.75	10.90	30.60	0.09	84.54
Variance 0			0.25	0.00	-2.41			-0.00	0.13
Variance 1			-0.20	0.00	-0.75			-0.00	1.16
Variance 2			0.01	-0.00	2.39			0.00	0.35

Notes

Collected at 13:50. Sunny, 70s. Extra Rad here. Collected dissolved Metals.

Grab Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133145-1

TestAmerica Sample Delivery Group: Pond 3 Phase 2

Client Project/Site: CCR Plant Arkwright

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/27/2017 1:31:18 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Job ID: 400-133145-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133145-1

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-133145-5) and DUP-1 (400-133145-6). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The continuing calibration blank (CCB) for analytical batch 340584 contained Chloride above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Metals

Method(s) 6020: The method blank for preparation batch 339997 and analytical batch 340403 contained Antimony above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.



Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-14

Lab Sample ID: 400-133145-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.40		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00088	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.031	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	25		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.0013		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0043	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00037	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	340		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-12

Lab Sample ID: 400-133145-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.069		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.023	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0039	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-3

Lab Sample ID: 400-133145-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0031		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-5

Lab Sample ID: 400-133145-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-5 (Continued)

Lab Sample ID: 400-133145-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	5.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-13

Lab Sample ID: 400-133145-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	370		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.064		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	78		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0032	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0097		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	590		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-133145-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	370		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.064		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	79		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0038	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0097		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	600		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133145-1	ARGWA-14	Water	01/23/17 15:30	01/26/17 08:58
400-133145-2	ARGWA-12	Water	01/23/17 17:45	01/26/17 08:58
400-133145-3	ARGWA-3	Water	01/24/17 13:15	01/26/17 08:58
400-133145-4	ARGWA-5	Water	01/24/17 15:50	01/26/17 08:58
400-133145-5	ARGWA-13	Water	01/24/17 17:25	01/26/17 08:58
400-133145-6	DUP-1	Water	01/24/17 00:00	01/26/17 08:58

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-14

Lab Sample ID: 400-133145-1

Date Collected: 01/23/17 15:30

Matrix: Water

Date Received: 01/26/17 08:58

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			02/06/17 19:57	1
Fluoride	0.40		0.20	0.082	mg/L			02/06/17 19:57	1
Sulfate	12		1.0	0.70	mg/L			02/06/17 19:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 16:06	5
Arsenic	0.00088	J	0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 16:06	5
Barium	0.044		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 16:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:06	5
Boron	0.031	J	0.050	0.021	mg/L		01/27/17 08:50	01/30/17 16:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:06	5
Calcium	25		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 16:06	5
Chromium	0.010		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 16:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 16:06	5
Lead	0.0013		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 16:06	5
Lithium	0.0043	J	0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 16:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 16:06	5
Selenium	0.00037	J	0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 16:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 16:06	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		01/27/17 09:16	02/01/17 13:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	340		5.0	3.4	mg/L			01/28/17 14:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-12

Lab Sample ID: 400-133145-2

Date Collected: 01/23/17 17:45

Matrix: Water

Date Received: 01/26/17 08:58

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.89	mg/L			02/06/17 20:19	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 20:19	1
Sulfate	11		1.0	0.70	mg/L			02/06/17 20:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 16:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 16:29	5
Barium	0.069		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 16:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:29	5
Boron	0.023	J	0.050	0.021	mg/L		01/27/17 08:50	01/30/17 16:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:29	5
Calcium	12		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 16:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 16:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 16:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 16:29	5
Lithium	0.0039	J	0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 16:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 16:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 16:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 16:29	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		01/27/17 09:16	02/01/17 13:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16		5.0	3.4	mg/L			01/28/17 14:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-3

Date Collected: 01/24/17 13:15

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.89	mg/L			02/06/17 20:42	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 20:42	1
Sulfate	<0.70		1.0	0.70	mg/L			02/06/17 20:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 16:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 16:33	5
Barium	0.017		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 16:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:33	5
Boron	<0.021		0.050	0.021	mg/L		01/27/17 08:50	01/30/17 16:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:33	5
Calcium	5.8		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 16:33	5
Chromium	0.0031		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 16:33	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 16:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 16:33	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 16:33	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 16:33	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 16:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 16:33	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		01/27/17 09:16	02/01/17 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			01/28/17 14:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-5

Date Collected: 01/24/17 15:50

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			02/06/17 21:05	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 21:05	1
Sulfate	<0.70		1.0	0.70	mg/L			02/06/17 21:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 16:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 16:38	5
Barium	0.028		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 16:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:38	5
Boron	<0.021		0.050	0.021	mg/L		01/27/17 08:50	01/30/17 16:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:38	5
Calcium	5.6		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 16:38	5
Chromium	0.0012 J		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 16:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 16:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 16:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 16:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 16:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 16:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 16:38	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		01/27/17 09:16	02/01/17 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			01/28/17 15:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-13

Date Collected: 01/24/17 17:25

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		1.0	0.89	mg/L			02/06/17 21:28	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 21:28	1
Sulfate	370		10	7.0	mg/L			02/02/17 19:03	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 16:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 16:42	5
Barium	0.025		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 16:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:42	5
Boron	0.064		0.050	0.021	mg/L		01/27/17 08:50	01/30/17 16:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:42	5
Calcium	78		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 16:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 16:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 16:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 16:42	5
Lithium	0.0032	J	0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 16:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 16:42	5
Selenium	0.0097		0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 16:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 16:42	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		01/27/17 09:16	02/01/17 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	590		5.0	3.4	mg/L			01/28/17 15:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: DUP-1

Date Collected: 01/24/17 00:00

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		1.0	0.89	mg/L			02/01/17 21:22	1
Fluoride	<0.082		0.20	0.082	mg/L			02/01/17 21:22	1
Sulfate	370		10	7.0	mg/L			02/02/17 19:25	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 16:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 16:47	5
Barium	0.025		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 16:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:47	5
Boron	0.064		0.050	0.021	mg/L		01/27/17 08:50	01/30/17 16:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 16:47	5
Calcium	79		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 16:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 16:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 16:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 16:47	5
Lithium	0.0038 J		0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 16:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 16:47	5
Selenium	0.0097		0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 16:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 16:47	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		01/27/17 09:16	02/01/17 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	600		5.0	3.4	mg/L			01/28/17 14:45	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-14

Date Collected: 01/23/17 15:30

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341083	02/06/17 19:57	KH1	TAL PEN
Total Recoverable	Prep	3005A			339997	01/27/17 08:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 16:06	DRE	TAL PEN
Total/NA	Prep	7470A			340020	01/27/17 09:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340686	02/01/17 13:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

Client Sample ID: ARGWA-12

Date Collected: 01/23/17 17:45

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341083	02/06/17 20:19	KH1	TAL PEN
Total Recoverable	Prep	3005A			339997	01/27/17 08:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 16:29	DRE	TAL PEN
Total/NA	Prep	7470A			340020	01/27/17 09:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340686	02/01/17 13:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

Client Sample ID: ARGWA-3

Date Collected: 01/24/17 13:15

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341083	02/06/17 20:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			339997	01/27/17 08:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 16:33	DRE	TAL PEN
Total/NA	Prep	7470A			340020	01/27/17 09:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340686	02/01/17 13:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

Client Sample ID: ARGWA-5

Date Collected: 01/24/17 15:50

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341083	02/06/17 21:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			339997	01/27/17 08:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 16:38	DRE	TAL PEN
Total/NA	Prep	7470A			340020	01/27/17 09:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340686	02/01/17 13:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340188	01/28/17 15:40	TET	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-133145-5

Date Collected: 01/24/17 17:25

Matrix: Water

Date Received: 01/26/17 08:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	340798	02/02/17 19:03	KH1	TAL PEN
Total/NA	Analysis	300.0		1	341083	02/06/17 21:28	KH1	TAL PEN
Total Recoverable	Prep	3005A			339997	01/27/17 08:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 16:42	DRE	TAL PEN
Total/NA	Prep	7470A			340020	01/27/17 09:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340686	02/01/17 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340188	01/28/17 15:40	TET	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-133145-6

Date Collected: 01/24/17 00:00

Matrix: Water

Date Received: 01/26/17 08:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340584	02/01/17 21:22	KH1	TAL PEN
Total/NA	Analysis	300.0		10	340798	02/02/17 19:25	KH1	TAL PEN
Total Recoverable	Prep	3005A			339997	01/27/17 08:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 16:47	DRE	TAL PEN
Total/NA	Prep	7470A			340020	01/27/17 09:16	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340686	02/01/17 13:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

HPLC/IC

Analysis Batch: 340584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-6	DUP-1	Total/NA	Water	300.0	
MB 400-340584/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340584/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340584/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132828-A-13 MS	Matrix Spike	Total/NA	Water	300.0	
400-132828-A-13 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 340798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-5	ARGWA-13	Total/NA	Water	300.0	
400-133145-6	DUP-1	Total/NA	Water	300.0	
MB 400-340798/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340798/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340798/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132828-A-14 MS	Matrix Spike	Total/NA	Water	300.0	
400-132828-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 341083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total/NA	Water	300.0	
400-133145-2	ARGWA-12	Total/NA	Water	300.0	
400-133145-3	ARGWA-3	Total/NA	Water	300.0	
400-133145-4	ARGWA-5	Total/NA	Water	300.0	
400-133145-5	ARGWA-13	Total/NA	Water	300.0	
MB 400-341083/4	Method Blank	Total/NA	Water	300.0	
LCS 400-341083/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-341083/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133233-A-14 MS	Matrix Spike	Total/NA	Water	300.0	
400-133233-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 339997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total Recoverable	Water	3005A	
400-133145-2	ARGWA-12	Total Recoverable	Water	3005A	
400-133145-3	ARGWA-3	Total Recoverable	Water	3005A	
400-133145-4	ARGWA-5	Total Recoverable	Water	3005A	
400-133145-5	ARGWA-13	Total Recoverable	Water	3005A	
400-133145-6	DUP-1	Total Recoverable	Water	3005A	
MB 400-339997/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-339997/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133053-D-3-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133053-D-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-132918-C-9-B DU ^5	Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 340020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total/NA	Water	7470A	
400-133145-2	ARGWA-12	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Metals (Continued)

Prep Batch: 340020 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-3	ARGWA-3	Total/NA	Water	7470A	
400-133145-4	ARGWA-5	Total/NA	Water	7470A	
400-133145-5	ARGWA-13	Total/NA	Water	7470A	
400-133145-6	DUP-1	Total/NA	Water	7470A	
MB 400-340020/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-340020/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133145-1 MS	ARGWA-14	Total/NA	Water	7470A	
400-133145-1 MSD	ARGWA-14	Total/NA	Water	7470A	

Analysis Batch: 340403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total Recoverable	Water	6020	339997
400-133145-2	ARGWA-12	Total Recoverable	Water	6020	339997
400-133145-3	ARGWA-3	Total Recoverable	Water	6020	339997
400-133145-4	ARGWA-5	Total Recoverable	Water	6020	339997
400-133145-5	ARGWA-13	Total Recoverable	Water	6020	339997
400-133145-6	DUP-1	Total Recoverable	Water	6020	339997
MB 400-339997/1-A ^5	Method Blank	Total Recoverable	Water	6020	339997
LCS 400-339997/2-A	Lab Control Sample	Total Recoverable	Water	6020	339997
400-133053-D-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	339997
400-133053-D-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	339997
400-132918-C-9-B DU ^5	Duplicate	Total Recoverable	Water	6020	339997

Analysis Batch: 340686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total/NA	Water	7470A	340020
400-133145-2	ARGWA-12	Total/NA	Water	7470A	340020
400-133145-3	ARGWA-3	Total/NA	Water	7470A	340020
400-133145-4	ARGWA-5	Total/NA	Water	7470A	340020
400-133145-5	ARGWA-13	Total/NA	Water	7470A	340020
400-133145-6	DUP-1	Total/NA	Water	7470A	340020
MB 400-340020/14-A	Method Blank	Total/NA	Water	7470A	340020
LCS 400-340020/15-A	Lab Control Sample	Total/NA	Water	7470A	340020
400-133145-1 MS	ARGWA-14	Total/NA	Water	7470A	340020
400-133145-1 MSD	ARGWA-14	Total/NA	Water	7470A	340020

General Chemistry

Analysis Batch: 340187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total/NA	Water	SM 2540C	
400-133145-2	ARGWA-12	Total/NA	Water	SM 2540C	
400-133145-3	ARGWA-3	Total/NA	Water	SM 2540C	
400-133145-6	DUP-1	Total/NA	Water	SM 2540C	
MB 400-340187/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-340187/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133145-1 DU	ARGWA-14	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

General Chemistry (Continued)

Analysis Batch: 340188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-4	ARGWA-5	Total/NA	Water	SM 2540C	
400-133145-5	ARGWA-13	Total/NA	Water	SM 2540C	
MB 400-340188/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-340188/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133118-B-9 DU	Duplicate	Total/NA	Water	SM 2540C	

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QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-340584/4
Matrix: Water
Analysis Batch: 340584

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/01/17 11:28	1
Fluoride	<0.082		0.20	0.082	mg/L			02/01/17 11:28	1
Sulfate	<0.70		1.0	0.70	mg/L			02/01/17 11:28	1

Lab Sample ID: LCS 400-340584/5
Matrix: Water
Analysis Batch: 340584

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.68		mg/L		97	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 400-340584/6
Matrix: Water
Analysis Batch: 340584

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.68		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	0	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

Lab Sample ID: 400-132828-A-13 MS
Matrix: Water
Analysis Batch: 340584

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0	^	10.0	14.1		mg/L		101	80 - 120
Fluoride	0.92		10.0	12.3		mg/L		114	80 - 120
Sulfate	34		10.0	44.5		mg/L		103	80 - 120

Lab Sample ID: 400-132828-A-13 MSD
Matrix: Water
Analysis Batch: 340584

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.0	^	10.0	14.1		mg/L		101	80 - 120	0	20
Fluoride	0.92		10.0	12.2		mg/L		112	80 - 120	1	20
Sulfate	34		10.0	44.6		mg/L		104	80 - 120	0	20

Lab Sample ID: MB 400-340798/4
Matrix: Water
Analysis Batch: 340798

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/02/17 16:23	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 16:23	1
Sulfate	<0.70		1.0	0.70	mg/L			02/02/17 16:23	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-340798/5
Matrix: Water
Analysis Batch: 340798

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

Lab Sample ID: LCSD 400-340798/6
Matrix: Water
Analysis Batch: 340798

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.87		mg/L		99	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	1	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

Lab Sample ID: 400-132828-A-14 MS
Matrix: Water
Analysis Batch: 340798

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	310		100	403		mg/L		98	80 - 120
Fluoride	<0.82		100	108		mg/L		108	80 - 120
Sulfate	580	E	100	680	E 4	mg/L		98	80 - 120

Lab Sample ID: 400-132828-A-14 MSD
Matrix: Water
Analysis Batch: 340798

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	310		100	403		mg/L		98	80 - 120	0	20
Fluoride	<0.82		100	108		mg/L		108	80 - 120	0	20
Sulfate	580	E	100	680	E 4	mg/L		98	80 - 120	0	20

Lab Sample ID: MB 400-341083/4
Matrix: Water
Analysis Batch: 341083

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/06/17 10:49	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 10:49	1
Sulfate	<0.70		1.0	0.70	mg/L			02/06/17 10:49	1

Lab Sample ID: LCS 400-341083/5
Matrix: Water
Analysis Batch: 341083

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.85		mg/L		98	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-341083/6
Matrix: Water
Analysis Batch: 341083

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.85		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	0	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	0	15

Lab Sample ID: 400-133233-A-14 MS
Matrix: Water
Analysis Batch: 341083

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.6		50.0	54.7		mg/L		98	80 - 120		
Fluoride	<0.41		50.0	53.7		mg/L		107	80 - 120		
Sulfate	150		50.0	202		mg/L		95	80 - 120		

Lab Sample ID: 400-133233-A-14 MSD
Matrix: Water
Analysis Batch: 341083

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.6		50.0	55.0		mg/L		99	80 - 120	0	20
Fluoride	<0.41		50.0	53.9		mg/L		108	80 - 120	0	20
Sulfate	150		50.0	202		mg/L		95	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-339997/1-A ^5
Matrix: Water
Analysis Batch: 340403

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 339997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00125	J	0.0025	0.0010	mg/L		01/27/17 08:50	01/30/17 14:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/27/17 08:50	01/30/17 14:23	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/27/17 08:50	01/30/17 14:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 14:23	5
Boron	<0.021		0.050	0.021	mg/L		01/27/17 08:50	01/30/17 14:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/27/17 08:50	01/30/17 14:23	5
Calcium	<0.13		0.25	0.13	mg/L		01/27/17 08:50	01/30/17 14:23	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/27/17 08:50	01/30/17 14:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/27/17 08:50	01/30/17 14:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/27/17 08:50	01/30/17 14:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/27/17 08:50	01/30/17 14:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/27/17 08:50	01/30/17 14:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/27/17 08:50	01/30/17 14:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/27/17 08:50	01/30/17 14:23	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: LCS 400-339997/2-A
Matrix: Water
Analysis Batch: 340403

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 339997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0519		mg/L		104	80 - 120
Arsenic	0.0500	0.0503		mg/L		101	80 - 120
Barium	0.0500	0.0503		mg/L		101	80 - 120
Beryllium	0.0500	0.0487		mg/L		97	80 - 120
Boron	0.100	0.0971		mg/L		97	80 - 120
Cadmium	0.0500	0.0512		mg/L		102	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0494		mg/L		99	80 - 120
Cobalt	0.0500	0.0444		mg/L		89	80 - 120
Lead	0.0500	0.0459		mg/L		92	80 - 120
Lithium	0.0500	0.0500		mg/L		100	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Selenium	0.0500	0.0500		mg/L		100	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

Lab Sample ID: 400-133053-D-3-B MS ^5
Matrix: Water
Analysis Batch: 340403

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 339997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0503		mg/L		101	75 - 125
Arsenic	0.0015		0.0500	0.0508		mg/L		99	75 - 125
Barium	0.045		0.0500	0.0944		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0505		mg/L		101	75 - 125
Boron	<0.021		0.100	0.108		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125
Calcium	6.9		5.00	11.7		mg/L		95	75 - 125
Chromium	0.0023	J	0.0500	0.0514		mg/L		98	75 - 125
Cobalt	0.00086	J	0.0500	0.0463		mg/L		91	75 - 125
Lead	0.00066	J	0.0500	0.0480		mg/L		95	75 - 125
Lithium	<0.0032		0.0500	0.0488		mg/L		98	75 - 125
Molybdenum	<0.00085		0.100	0.0975		mg/L		98	75 - 125
Selenium	0.00026	J	0.0500	0.0493		mg/L		98	75 - 125
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125

Lab Sample ID: 400-133053-D-3-C MSD ^5
Matrix: Water
Analysis Batch: 340403

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 339997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0497		mg/L		99	75 - 125	1	20
Arsenic	0.0015		0.0500	0.0505		mg/L		98	75 - 125	1	20
Barium	0.045		0.0500	0.0946		mg/L		100	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0499		mg/L		100	75 - 125	1	20
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125	2	20
Calcium	6.9		5.00	11.8		mg/L		98	75 - 125	1	20
Chromium	0.0023	J	0.0500	0.0529		mg/L		101	75 - 125	3	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: 400-133053-D-3-C MSD ^5
Matrix: Water
Analysis Batch: 340403

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 339997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.00086	J	0.0500	0.0468		mg/L		92	75 - 125	1	20
Lead	0.00066	J	0.0500	0.0473		mg/L		93	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0490		mg/L		98	75 - 125	0	20
Molybdenum	<0.00085		0.100	0.0984		mg/L		98	75 - 125	1	20
Selenium	0.00026	J	0.0500	0.0491		mg/L		98	75 - 125	0	20
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125	1	20

Lab Sample ID: 400-132918-C-9-B DU ^5
Matrix: Water
Analysis Batch: 340403

Client Sample ID: Duplicate
Prep Type: Total Recoverable
Prep Batch: 339997

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0010		<0.0010		mg/L		NC	20
Arsenic	<0.00046		<0.00046		mg/L		NC	20
Barium	0.060		0.0588		mg/L		1	20
Beryllium	<0.00034		<0.00034		mg/L		NC	20
Boron	<0.021		<0.021		mg/L		NC	20
Cadmium	<0.00034		<0.00034		mg/L		NC	20
Calcium	2.9		2.91		mg/L		0.3	20
Chromium	0.0034		0.00332		mg/L		2	20
Cobalt	0.00067	J	0.000700	J	mg/L		4	20
Lead	<0.00035		<0.00035		mg/L		NC	20
Lithium	<0.0032		<0.0032		mg/L		NC	20
Molybdenum	<0.00085		<0.00085		mg/L		NC	20
Selenium	<0.00024		<0.00024		mg/L		NC	20
Thallium	<0.00085		<0.00085		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-340020/14-A
Matrix: Water
Analysis Batch: 340686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 340020

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		01/27/17 09:16	02/01/17 13:09	1

Lab Sample ID: LCS 400-340020/15-A
Matrix: Water
Analysis Batch: 340686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00111		mg/L		111	80 - 120

Lab Sample ID: 400-133145-1 MS
Matrix: Water
Analysis Batch: 340686

Client Sample ID: ARGWA-14
Prep Type: Total/NA
Prep Batch: 340020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00215		mg/L		107	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Lab Sample ID: 400-133145-1 MSD
Matrix: Water
Analysis Batch: 340686

Client Sample ID: ARGWA-14
Prep Type: Total/NA
Prep Batch: 340020

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00228		mg/L		113	80 - 120	6	20

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

Lab Sample ID: MB 400-340187/1
Matrix: Water
Analysis Batch: 340187

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	<3.4		5.0	3.4	mg/L			01/28/17 14:45	1

Lab Sample ID: LCS 400-340187/2
Matrix: Water
Analysis Batch: 340187

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	293	258		mg/L		88	78 - 122

Lab Sample ID: 400-133145-1 DU
Matrix: Water
Analysis Batch: 340187

Client Sample ID: ARGWA-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	340		344		mg/L		0	5

Lab Sample ID: MB 400-340188/1
Matrix: Water
Analysis Batch: 340188

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	<3.4		5.0	3.4	mg/L			01/28/17 15:40	1

Lab Sample ID: LCS 400-340188/2
Matrix: Water
Analysis Batch: 340188

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	293	258		mg/L		88	78 - 122

Lab Sample ID: 400-133118-B-9 DU
Matrix: Water
Analysis Batch: 340188

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	140		140		mg/L		0	5



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: OF

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239
REPORT TO: Joju Abraham
REQUESTED COMPLETION DATE: laburch@southernco.com
PROJECT NAME/STATE: Plant Arkwright Pond 3

Table with columns: Collection DATE, Collection TIME, MATRIX CODE, SAMPLE IDENTIFICATION, C O R A B, ANALYSIS REQUESTED (Metals App. III & IV, Metals (see attached), CI, F, SO, & TDS, EPA 300.0 & SM 2540C, Radium 226 & 228), RELINQUISHED BY, DATE/TIME, pH checked, Temperature.

CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER
PRESERVATION: 1 - HCl, $\le 6^{\circ}\text{C}$, 2 - H_2SO_4, $\le 6^{\circ}\text{C}$, 3 - HNO_3, 4 - NaOH, $\le 6^{\circ}\text{C}$, 5 - NaOH/ZnAc, $\le 6^{\circ}\text{C}$, 6 - $\text{Na}_2\text{S}_2\text{O}_3$, $\le 6^{\circ}\text{C}$, 7 - $\le 6^{\circ}\text{C}$ not frozen
REMARKS/ADDITIONAL INFORMATION: 400-133145 COC

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133145-1
SDG Number: Pond 3 Phase 2

Login Number: 133145

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

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	0.0°C IR-2
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	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-1
SDG: Pond 3 Phase 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133145-2

TestAmerica Sample Delivery Group: Pond 3 Phase 2

Client Project/Site: CCR Plant Arkwright

For:

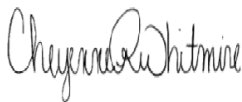
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/22/2017 2:18:28 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Job ID: 400-133145-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133145-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-291041: The Ba carrier recovery is outside the upper control limit (110%) for the following samples: ARGWA-14 (400-133145-1), ARGWA-12 (400-133145-2), ARGWA-3 (400-133145-3), ARGWA-5 (400-133145-4) and ARGWA-13 (400-133145-5). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-294455: Insufficient sample volume was available to perform a sample duplicate (DU). An LCS/LCSD was prepared to demonstrate batch precision. ARGWA-14 (400-133145-1), ARGWA-12 (400-133145-2), ARGWA-3 (400-133145-3), ARGWA-5 (400-133145-4), ARGWA-13 (400-133145-5) and DUP-1 (400-133145-6)

Method(s) PrecSep_0: Radium-228 Prep Batch 160-294455: The following samples were unable to be re-precipitated at the full 1L aliquot. The remaining sample available was used and samples were prepared at a minimum of 950mL; this volume should allow the samples to meet the client request limit. ARGWA-14 (400-133145-1), ARGWA-12 (400-133145-2), ARGWA-3 (400-133145-3), ARGWA-5 (400-133145-4), ARGWA-13 (400-133145-5) and DUP-1 (400-133145-6)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-291025: The Ba carrier recovery is outside the upper control limit (110%) for the following samples: ARGWA-14 (400-133145-1), ARGWA-12 (400-133145-2), ARGWA-3 (400-133145-3), ARGWA-5 (400-133145-4) and ARGWA-13 (400-133145-5). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-294461: Insufficient sample volume was available to perform a sample duplicate (DU). An LCS/LCSD was prepared to demonstrate batch precision. ARGWA-14 (400-133145-1), ARGWA-12 (400-133145-2), ARGWA-3 (400-133145-3), ARGWA-5 (400-133145-4), ARGWA-13 (400-133145-5) and DUP-1 (400-133145-6)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-294461: The following samples were unable to be re-precipitated at the full 1L aliquot. The remaining sample available was used and samples were prepared at a minimum of 950mL; this volume should allow the samples to meet the client request limit. ARGWA-14 (400-133145-1), ARGWA-12 (400-133145-2), ARGWA-3 (400-133145-3), ARGWA-5 (400-133145-4), ARGWA-13 (400-133145-5) and DUP-1 (400-133145-6)

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133145-1	ARGWA-14	Water	01/23/17 15:30	01/26/17 08:58
400-133145-2	ARGWA-12	Water	01/23/17 17:45	01/26/17 08:58
400-133145-3	ARGWA-3	Water	01/24/17 13:15	01/26/17 08:58
400-133145-4	ARGWA-5	Water	01/24/17 15:50	01/26/17 08:58
400-133145-5	ARGWA-13	Water	01/24/17 17:25	01/26/17 08:58
400-133145-6	DUP-1	Water	01/24/17 00:00	01/26/17 08:58

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-14

Lab Sample ID: 400-133145-1

Date Collected: 01/23/17 15:30

Matrix: Water

Date Received: 01/26/17 08:58

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.0763	0.0768	1.00	0.108	pCi/L	02/25/17 13:24	03/20/17 20:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/25/17 13:24	03/20/17 20:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.325	U	0.224	0.226	1.00	0.347	pCi/L	02/25/17 13:02	03/13/17 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/25/17 13:02	03/13/17 14:08	1
Y Carrier	88.2		40 - 110					02/25/17 13:02	03/13/17 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.426		0.236	0.238	5.00	0.347	pCi/L		03/21/17 14:18	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
 SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-12

Lab Sample ID: 400-133145-2

Date Collected: 01/23/17 17:45

Matrix: Water

Date Received: 01/26/17 08:58

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0669	U	0.0661	0.0664	1.00	0.102	pCi/L	02/25/17 13:24	03/20/17 20:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/25/17 13:24	03/20/17 20:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0539	U	0.228	0.228	1.00	0.396	pCi/L	02/25/17 13:02	03/13/17 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/25/17 13:02	03/13/17 14:08	1
Y Carrier	86.4		40 - 110					02/25/17 13:02	03/13/17 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.121	U	0.237	0.238	5.00	0.396	pCi/L		03/21/17 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-3

Lab Sample ID: 400-133145-3

Date Collected: 01/24/17 13:15

Matrix: Water

Date Received: 01/26/17 08:58

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0226	U	0.0604	0.0605	1.00	0.113	pCi/L	02/25/17 13:24	03/20/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/25/17 13:24	03/20/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0875	U	0.229	0.229	1.00	0.393	pCi/L	02/25/17 13:02	03/13/17 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/25/17 13:02	03/13/17 14:08	1
Y Carrier	91.6		40 - 110					02/25/17 13:02	03/13/17 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.110	U	0.237	0.237	5.00	0.393	pCi/L		03/21/17 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-5

Lab Sample ID: 400-133145-4

Date Collected: 01/24/17 15:50

Matrix: Water

Date Received: 01/26/17 08:58

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0446	U	0.0624	0.0625	1.00	0.106	pCi/L	02/25/17 13:24	03/20/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					02/25/17 13:24	03/20/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0621	U	0.221	0.221	1.00	0.383	pCi/L	02/25/17 13:02	03/13/17 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					02/25/17 13:02	03/13/17 14:08	1
Y Carrier	92.0		40 - 110					02/25/17 13:02	03/13/17 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.107	U	0.230	0.230	5.00	0.383	pCi/L		03/21/17 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-133145-5

Date Collected: 01/24/17 17:25

Matrix: Water

Date Received: 01/26/17 08:58

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0111	U	0.0524	0.0524	1.00	0.104	pCi/L	02/25/17 13:24	03/20/17 20:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					02/25/17 13:24	03/20/17 20:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.358	U	0.233	0.236	1.00	0.360	pCi/L	02/25/17 13:02	03/13/17 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/25/17 13:02	03/13/17 14:08	1
Y Carrier	86.0		40 - 110					02/25/17 13:02	03/13/17 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.369		0.239	0.241	5.00	0.360	pCi/L		03/21/17 14:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: DUP-1
Date Collected: 01/24/17 00:00
Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-6
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	0.0991	U	0.0820	0.0825	1.00	0.121	pCi/L	02/25/17 13:24	03/20/17 20:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/25/17 13:24	03/20/17 20:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.185	U	0.211	0.211	1.00	0.347	pCi/L	02/25/17 13:02	03/13/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/25/17 13:02	03/13/17 14:09	1
Y Carrier	83.0		40 - 110					02/25/17 13:02	03/13/17 14:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.284	U	0.226	0.227	5.00	0.347	pCi/L		03/21/17 14:18	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-14

Date Collected: 01/23/17 15:30

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294461	02/25/17 13:24	RTM	TAL SL
Total/NA	Analysis	9315		1	298258	03/20/17 20:25	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294455	02/25/17 13:02	RTM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298857	03/21/17 14:18	RTM	TAL SL

Client Sample ID: ARGWA-12

Date Collected: 01/23/17 17:45

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294461	02/25/17 13:24	RTM	TAL SL
Total/NA	Analysis	9315		1	298258	03/20/17 20:25	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294455	02/25/17 13:02	RTM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298857	03/21/17 14:18	RTM	TAL SL

Client Sample ID: ARGWA-3

Date Collected: 01/24/17 13:15

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294461	02/25/17 13:24	RTM	TAL SL
Total/NA	Analysis	9315		1	298258	03/20/17 20:26	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294455	02/25/17 13:02	RTM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298857	03/21/17 14:18	RTM	TAL SL

Client Sample ID: ARGWA-5

Date Collected: 01/24/17 15:50

Date Received: 01/26/17 08:58

Lab Sample ID: 400-133145-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294461	02/25/17 13:24	RTM	TAL SL
Total/NA	Analysis	9315		1	298258	03/20/17 20:26	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294455	02/25/17 13:02	RTM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298857	03/21/17 14:18	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-133145-5

Date Collected: 01/24/17 17:25

Matrix: Water

Date Received: 01/26/17 08:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294461	02/25/17 13:24	RTM	TAL SL
Total/NA	Analysis	9315		1	298258	03/20/17 20:26	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294455	02/25/17 13:02	RTM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298857	03/21/17 14:18	RTM	TAL SL

Client Sample ID: DUP-1

Lab Sample ID: 400-133145-6

Date Collected: 01/24/17 00:00

Matrix: Water

Date Received: 01/26/17 08:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294461	02/25/17 13:24	RTM	TAL SL
Total/NA	Analysis	9315		1	298629	03/20/17 20:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			294455	02/25/17 13:02	RTM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298857	03/21/17 14:18	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Rad

Prep Batch: 294455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total/NA	Water	PrecSep_0	
400-133145-2	ARGWA-12	Total/NA	Water	PrecSep_0	
400-133145-3	ARGWA-3	Total/NA	Water	PrecSep_0	
400-133145-4	ARGWA-5	Total/NA	Water	PrecSep_0	
400-133145-5	ARGWA-13	Total/NA	Water	PrecSep_0	
400-133145-6	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-294455/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-294455/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-294455/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 294461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133145-1	ARGWA-14	Total/NA	Water	PrecSep-21	
400-133145-2	ARGWA-12	Total/NA	Water	PrecSep-21	
400-133145-3	ARGWA-3	Total/NA	Water	PrecSep-21	
400-133145-4	ARGWA-5	Total/NA	Water	PrecSep-21	
400-133145-5	ARGWA-13	Total/NA	Water	PrecSep-21	
400-133145-6	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-294461/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-294461/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-294461/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-294461/1-A
Matrix: Water
Analysis Batch: 298258

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294461

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01346	U	0.0598	0.0598	1.00	0.125	pCi/L	02/25/17 13:24	03/20/17 20:23	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/25/17 13:24	03/20/17 20:23	1

Lab Sample ID: LCS 160-294461/2-A
Matrix: Water
Analysis Batch: 298258

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294461

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	10.72		1.11	1.00	0.104	pCi/L	94	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	101		40 - 110						

Lab Sample ID: LCSD 160-294461/3-A
Matrix: Water
Analysis Batch: 298258

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294461

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	10.27		1.07	1.00	0.120	pCi/L	90	68 - 137	0.21	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	103		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-294455/1-A
Matrix: Water
Analysis Batch: 297320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294455

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2095	U	0.207	0.208	1.00	0.335	pCi/L	02/25/17 13:02	03/13/17 14:06	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/25/17 13:02	03/13/17 14:06	1
Y Carrier	87.9		40 - 110					02/25/17 13:02	03/13/17 14:06	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
 SDG: Pond 3 Phase 2

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

Lab Sample ID: LCS 160-294455/2-A
Matrix: Water
Analysis Batch: 297320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294455

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	12.84		1.37	1.00	0.312	pCi/L	94	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	93.1		40 - 110

Lab Sample ID: LCSD 160-294455/3-A
Matrix: Water
Analysis Batch: 297320

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294455

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.7	14.20		1.50	1.00	0.315	pCi/L	103	56 - 140	0.47	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	86.7		40 - 110

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PAGE: 1 OF 1

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239 REPORT TO: Joju Abraham REQUESTED COMPLETION DATE: laburch@southernco.com PROJECT NAME/STATE: Plant Arkwright Pond 3		ANALYSIS REQUESTED P 3 P 3 P 7 P 3 Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)		CONTAINER TYPE: PRESERVATION: # of C O N T A I N E R S		CONTAINER TYPE: PRESERVATION: 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	
PROJECT #: Phase II CR State DR		REMARKS/ADDITIONAL INFORMATION DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT		*MATRIX CODES: 400-133145 COC			
Collection DATE: M- DD -YY 1-23-17 1-23-17 1-24-17 1-24-17 1-24-17 1-24-17		Collection TIME: 1530 1745 1315 1550 1725 —		MATRIX CODE*: GW GW GW GW GW GW			
Collection TIME: 1530 1745 1315 1550 1725 —		Sample Identification: ARGWA-14 ARGWA-12 ARGWA-3 ARGWA-5 ARGWA-13 DUP-1		RELINQUISHED BY: [Signature] DATE/TIME: 1-25-17 / 10:07			
RECEIVED BY: Chris Packer DATE/TIME: 1-24-17 / 1940		RELINQUISHED BY: [Signature] DATE/TIME: 1-25-17 / 10:07		LAB #: 400-133145 COC			
RECEIVED BY: [Signature] DATE/TIME: 1-25-17 / 10:07		RECEIVED BY: [Signature] DATE/TIME: 1-26-17 / 0550		FOR LAB USE ONLY Entered into LIMS: Tracking #:			
pH checked: Yes: No NA Yes: No NA Yes: No NA		Temperature: 0.0°C TR2		CLIENT: COURIER: OTHER:			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133145-2
SDG Number: Pond 3 Phase 2

Login Number: 133145

List Number: 1

Creator: Hughes, Nicholas T

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133145-2
SDG: Pond 3 Phase 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133233-1

TestAmerica Sample Delivery Group: Pond 3 Phase 2

Client Project/Site: CCR Plant Arkwright

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/27/2017 1:32:30 PM

Cheyenne Whitmire, Project Manager II

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cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Job ID: 400-133233-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133233-1

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWC-16 (400-133233-2), ARGWC-17 (400-133233-4), ARGWC-7 (400-133233-5), ARGWC-8 (400-133233-7) and ARGWC-18 (400-133233-10). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 340456 and analytical batch 340674 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) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: ARGWC-18 (400-133233-10). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The method blank for prep batch 340467 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.



Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-15

Lab Sample ID: 400-133233-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.097	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	5.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	23		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-133233-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	130		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.059		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	23		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0017	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00071	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000079	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1-1-26-17

Lab Sample ID: 400-133233-3

No Detections.

Client Sample ID: ARGWC-17

Lab Sample ID: 400-133233-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	110		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.051		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0016	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.022		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-7

Lab Sample ID: 400-133233-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	57		5.0	3.5	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-7 (Continued)

Lab Sample ID: 400-133233-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.14		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0033		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0033	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-9

Lab Sample ID: 400-133233-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-8

Lab Sample ID: 400-133233-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.8		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	75		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.5		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	51		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0035	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.040		0.015	0.00085	mg/L	5		6020	Total Recoverable
Mercury	0.000081	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	300		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1-1-26-17

Lab Sample ID: 400-133233-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000081	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: ARGWC-10

Lab Sample ID: 400-133233-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-10 (Continued)

Lab Sample ID: 400-133233-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total
Calcium	7.4		0.25	0.13	mg/L	5		6020	Recoverable Total
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Recoverable Total
Mercury	0.000077	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-18

Lab Sample ID: 400-133233-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.097	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	200		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total
Calcium	49		0.25	0.13	mg/L	5		6020	Recoverable Total
Cobalt	0.0021	J	0.0025	0.00040	mg/L	5		6020	Recoverable Total
Lithium	0.0048	J	0.0050	0.0032	mg/L	5		6020	Recoverable Total
Boron - DL	2.6		0.25	0.11	mg/L	25		6020	Total
Barium, Dissolved	0.034		0.0025	0.00049	mg/L	5		6020	Recoverable Dissolved
Calcium, Dissolved	47		0.25	0.13	mg/L	5		6020	Dissolved
Cobalt, Dissolved	0.0019	J	0.0025	0.00040	mg/L	5		6020	Dissolved
Lithium, Dissolved	0.0034	J	0.0050	0.0032	mg/L	5		6020	Dissolved
Boron, Dissolved - DL	2.5		0.25	0.11	mg/L	25		6020	Dissolved
Mercury	0.000074	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	460		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133233-1	ARGWC-15	Water	01/26/17 10:10	01/28/17 08:49
400-133233-2	ARGWC-16	Water	01/26/17 12:55	01/28/17 08:49
400-133233-3	EB-1-1-26-17	Water	01/26/17 13:55	01/28/17 08:49
400-133233-4	ARGWC-17	Water	01/26/17 14:15	01/28/17 08:49
400-133233-5	ARGWC-7	Water	01/26/17 15:35	01/28/17 08:49
400-133233-6	ARGWC-9	Water	01/26/17 17:20	01/28/17 08:49
400-133233-7	ARGWC-8	Water	01/26/17 17:30	01/28/17 08:49
400-133233-8	FB-1-1-26-17	Water	01/26/17 16:45	01/28/17 08:49
400-133233-9	ARGWC-10	Water	01/27/17 11:55	01/28/17 08:49
400-133233-10	ARGWC-18	Water	01/27/17 15:30	01/28/17 08:49



Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
 SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-15

Lab Sample ID: 400-133233-1

Date Collected: 01/26/17 10:10

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			02/02/17 06:52	1
Fluoride	0.097	J	0.20	0.082	mg/L			02/02/17 06:52	1
Sulfate	5.1		1.0	0.70	mg/L			02/02/17 06:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 15:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 15:41	5
Barium	0.038		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 15:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 15:41	5
Boron	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 15:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 15:41	5
Calcium	23		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 15:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 15:41	5
Cobalt	0.011		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 15:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 15:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 15:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 15:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 15:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 15:41	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		01/31/17 12:31	02/02/17 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-16

Lab Sample ID: 400-133233-2

Date Collected: 01/26/17 12:55

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.89	mg/L			02/02/17 07:38	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 07:38	1
Sulfate	130		5.0	3.5	mg/L			02/02/17 20:57	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 15:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 15:45	5
Barium	0.055		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 15:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 15:45	5
Boron	0.059		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 15:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 15:45	5
Calcium	23		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 15:45	5
Chromium	0.0017	J	0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 15:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 15:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 15:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 15:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 15:45	5
Selenium	0.00071	J	0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 15:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 15:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000079	J B	0.00020	0.000070	mg/L		01/31/17 12:31	02/02/17 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: EB-1-1-26-17

Lab Sample ID: 400-133233-3

Date Collected: 01/26/17 13:55

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/02/17 08:00	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 08:00	1
Sulfate	<0.70		1.0	0.70	mg/L			02/02/17 08:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 16:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 16:07	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 16:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:07	5
Boron	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 16:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:07	5
Calcium	<0.13		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 16:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 16:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 16:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 16:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 16:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 16:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 16:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 16:07	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		01/31/17 12:31	02/02/17 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-17

Lab Sample ID: 400-133233-4

Date Collected: 01/26/17 14:15

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		1.0	0.89	mg/L			02/02/17 08:23	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 08:23	1
Sulfate	110		5.0	3.5	mg/L			02/02/17 21:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 16:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 16:12	5
Barium	0.051		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 16:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:12	5
Boron	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 16:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:12	5
Calcium	21		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 16:12	5
Chromium	0.0016 J		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 16:12	5
Cobalt	0.022		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 16:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 16:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 16:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 16:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 16:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 16:12	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		01/31/17 12:31	02/02/17 13:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-7

Date Collected: 01/26/17 15:35

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			02/02/17 08:46	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 08:46	1
Sulfate	57		5.0	3.5	mg/L			02/02/17 21:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 16:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 16:16	5
Barium	0.035		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 16:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:16	5
Boron	0.14		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 16:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:16	5
Calcium	13		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 16:16	5
Chromium	0.0033		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 16:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 16:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 16:16	5
Lithium	0.0033 J		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 16:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 16:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 16:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 16:16	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		01/31/17 12:31	02/02/17 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-9

Lab Sample ID: 400-133233-6

Date Collected: 01/26/17 17:20

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.89	mg/L			02/02/17 09:09	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 09:09	1
Sulfate	1.1		1.0	0.70	mg/L			02/02/17 09:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 16:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 16:21	5
Barium	0.048		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 16:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:21	5
Boron	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 16:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:21	5
Calcium	5.5		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 16:21	5
Chromium	0.011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 16:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 16:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 16:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 16:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 16:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 16:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 16:21	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		01/31/17 12:31	02/02/17 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-8

Lab Sample ID: 400-133233-7

Date Collected: 01/26/17 17:30

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		1.0	0.89	mg/L			02/02/17 09:32	1
Fluoride	0.13	J	0.20	0.082	mg/L			02/02/17 09:32	1
Sulfate	75		5.0	3.5	mg/L			02/02/17 22:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 16:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 16:25	5
Barium	0.046		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 16:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:25	5
Boron	1.5		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 16:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:25	5
Calcium	51		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 16:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 16:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 16:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 16:25	5
Lithium	0.0035	J	0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 16:25	5
Molybdenum	0.040		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 16:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 16:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 16:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000081	J B	0.00020	0.000070	mg/L		01/31/17 12:31	02/02/17 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: FB-1-1-26-17

Lab Sample ID: 400-133233-8

Date Collected: 01/26/17 16:45

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/02/17 10:40	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 10:40	1
Sulfate	<0.70		1.0	0.70	mg/L			02/02/17 10:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 16:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 16:30	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 16:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:30	5
Boron	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 16:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 16:30	5
Calcium	<0.13		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 16:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 16:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 16:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 16:30	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 16:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 16:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 16:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 16:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000081	J B	0.00020	0.000070	mg/L		01/31/17 12:31	02/02/17 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			01/31/17 14:32	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-133233-9

Date Collected: 01/27/17 11:55

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.89	mg/L			02/03/17 12:41	1
Fluoride	<0.082		0.20	0.082	mg/L			02/03/17 12:41	1
Sulfate	<0.70		1.0	0.70	mg/L			02/03/17 12:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/01/17 08:30	02/02/17 14:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/01/17 08:30	02/02/17 14:20	5
Barium	0.035		0.0025	0.00049	mg/L		02/01/17 08:30	02/02/17 14:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/01/17 08:30	02/02/17 14:20	5
Boron	<0.021		0.050	0.021	mg/L		02/01/17 08:30	02/02/17 14:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/01/17 08:30	02/02/17 14:20	5
Calcium	7.4		0.25	0.13	mg/L		02/01/17 08:30	02/02/17 14:20	5
Chromium	0.0050		0.0025	0.0011	mg/L		02/01/17 08:30	02/02/17 14:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/01/17 08:30	02/02/17 14:20	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/01/17 08:30	02/02/17 14:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/01/17 08:30	02/02/17 14:20	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/01/17 08:30	02/02/17 14:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/01/17 08:30	02/02/17 14:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/01/17 08:30	02/02/17 14:20	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000077	J B	0.00020	0.000070	mg/L		01/31/17 12:31	02/02/17 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			02/01/17 11:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-18

Lab Sample ID: 400-133233-10

Date Collected: 01/27/17 15:30

Matrix: Water

Date Received: 01/28/17 08:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.3		1.0	0.89	mg/L			02/03/17 13:50	1
Fluoride	0.097	J	0.20	0.082	mg/L			02/03/17 13:50	1
Sulfate	200		10	7.0	mg/L			02/03/17 20:17	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/01/17 08:30	02/02/17 14:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/01/17 08:30	02/02/17 14:25	5
Barium	0.037		0.0025	0.00049	mg/L		02/01/17 08:30	02/02/17 14:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/01/17 08:30	02/02/17 14:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/01/17 08:30	02/02/17 14:25	5
Calcium	49		0.25	0.13	mg/L		02/01/17 08:30	02/02/17 14:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/01/17 08:30	02/02/17 14:25	5
Cobalt	0.0021	J	0.0025	0.00040	mg/L		02/01/17 08:30	02/02/17 14:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/01/17 08:30	02/02/17 14:25	5
Lithium	0.0048	J	0.0050	0.0032	mg/L		02/01/17 08:30	02/02/17 14:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/01/17 08:30	02/02/17 14:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/01/17 08:30	02/02/17 14:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/01/17 08:30	02/02/17 14:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.6		0.25	0.11	mg/L		02/01/17 08:30	02/02/17 15:28	25

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 15:32	5
Barium, Dissolved	0.034		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 15:32	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 15:32	5
Calcium, Dissolved	47		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 15:32	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 15:32	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 15:32	5
Cobalt, Dissolved	0.0019	J	0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 15:32	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 15:32	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 15:32	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 15:32	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 15:32	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 15:32	5
Lithium, Dissolved	0.0034	J	0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 15:32	5

Method: 6020 - Metals (ICP/MS) - Dissolved - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron, Dissolved	2.5		0.25	0.11	mg/L		01/31/17 11:45	02/02/17 13:08	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000074	J B	0.00020	0.000070	mg/L		01/31/17 12:31	02/02/17 13:41	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		01/31/17 12:29	02/01/17 13:55	1

TestAmerica Pensacola

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

General Chemistry

Analyte

Total Dissolved Solids

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
460		5.0	3.4	mg/L			02/01/17 11:53	1

1

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
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
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-15

Date Collected: 01/26/17 10:10

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 06:52	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 15:41	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: ARGWC-16

Date Collected: 01/26/17 12:55

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 07:38	KH1	TAL PEN
Total/NA	Analysis	300.0		5	340798	02/02/17 20:57	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 15:45	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: EB-1-1-26-17

Date Collected: 01/26/17 13:55

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 08:00	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 16:07	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: ARGWC-17

Date Collected: 01/26/17 14:15

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 08:23	KH1	TAL PEN
Total/NA	Analysis	300.0		5	340798	02/02/17 21:19	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 16:12	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-17

Lab Sample ID: 400-133233-4

Date Collected: 01/26/17 14:15

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	340770	02/02/17 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: ARGWC-7

Lab Sample ID: 400-133233-5

Date Collected: 01/26/17 15:35

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 08:46	KH1	TAL PEN
Total/NA	Analysis	300.0		5	340798	02/02/17 21:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 16:16	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: ARGWC-9

Lab Sample ID: 400-133233-6

Date Collected: 01/26/17 17:20

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 09:09	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 16:21	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: ARGWC-8

Lab Sample ID: 400-133233-7

Date Collected: 01/26/17 17:30

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 09:32	KH1	TAL PEN
Total/NA	Analysis	300.0		5	340798	02/02/17 22:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 16:25	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Client Sample ID: FB-1-1-26-17

Lab Sample ID: 400-133233-8

Date Collected: 01/26/17 16:45

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340731	02/02/17 10:40	KH1	TAL PEN
Total Recoverable	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340674	02/01/17 16:30	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	TET	TAL PEN

Client Sample ID: ARGWC-10

Lab Sample ID: 400-133233-9

Date Collected: 01/27/17 11:55

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340885	02/03/17 12:41	KH1	TAL PEN
Total Recoverable	Prep	3005A			340541	02/01/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340833	02/02/17 14:20	DRE	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340618	02/01/17 11:53	TET	TAL PEN

Client Sample ID: ARGWC-18

Lab Sample ID: 400-133233-10

Date Collected: 01/27/17 15:30

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340885	02/03/17 13:50	KH1	TAL PEN
Total/NA	Analysis	300.0		10	340885	02/03/17 20:17	KH1	TAL PEN
Dissolved	Prep	3005A			340456	01/31/17 11:45	RJB	TAL PEN
Dissolved	Analysis	6020		5	340674	02/01/17 15:32	DRE	TAL PEN
Dissolved	Prep	3005A	DL		340456	01/31/17 11:45	RJB	TAL PEN
Dissolved	Analysis	6020	DL	25	340833	02/02/17 13:08	DRE	TAL PEN
Total Recoverable	Prep	3005A			340541	02/01/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340833	02/02/17 14:25	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		340541	02/01/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	340833	02/02/17 15:28	DRE	TAL PEN
Dissolved	Prep	7470A			340020	01/31/17 12:29	JAP	TAL PEN
Dissolved	Analysis	7470A		1	340686	02/01/17 13:55	JAP	TAL PEN
Total/NA	Prep	7470A			340467	01/31/17 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340770	02/02/17 13:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340618	02/01/17 11:53	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

HPLC/IC

Analysis Batch: 340731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total/NA	Water	300.0	
400-133233-2	ARGWC-16	Total/NA	Water	300.0	
400-133233-3	EB-1-1-26-17	Total/NA	Water	300.0	
400-133233-4	ARGWC-17	Total/NA	Water	300.0	
400-133233-5	ARGWC-7	Total/NA	Water	300.0	
400-133233-6	ARGWC-9	Total/NA	Water	300.0	
400-133233-7	ARGWC-8	Total/NA	Water	300.0	
400-133233-8	FB-1-1-26-17	Total/NA	Water	300.0	
MB 400-340731/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340731/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340731/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133190-J-6 MS	Matrix Spike	Total/NA	Water	300.0	
400-133190-J-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 340798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-2	ARGWC-16	Total/NA	Water	300.0	
400-133233-4	ARGWC-17	Total/NA	Water	300.0	
400-133233-5	ARGWC-7	Total/NA	Water	300.0	
400-133233-7	ARGWC-8	Total/NA	Water	300.0	
MB 400-340798/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340798/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340798/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132828-A-14 MS	Matrix Spike	Total/NA	Water	300.0	
400-132828-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 340885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-9	ARGWC-10	Total/NA	Water	300.0	
400-133233-10	ARGWC-18	Total/NA	Water	300.0	
400-133233-10	ARGWC-18	Total/NA	Water	300.0	
MB 400-340885/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340885/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340885/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133233-9 MS	ARGWC-10	Total/NA	Water	300.0	
400-133233-9 MSD	ARGWC-10	Total/NA	Water	300.0	

Metals

Prep Batch: 340020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-10	ARGWC-18	Dissolved	Water	7470A	
MB 400-340020/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-340020/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133145-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-133145-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 340456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Metals (Continued)

Prep Batch: 340456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-2	ARGWC-16	Total Recoverable	Water	3005A	
400-133233-3	EB-1-1-26-17	Total Recoverable	Water	3005A	
400-133233-4	ARGWC-17	Total Recoverable	Water	3005A	
400-133233-5	ARGWC-7	Total Recoverable	Water	3005A	
400-133233-6	ARGWC-9	Total Recoverable	Water	3005A	
400-133233-7	ARGWC-8	Total Recoverable	Water	3005A	
400-133233-8	FB-1-1-26-17	Total Recoverable	Water	3005A	
400-133233-10 - DL	ARGWC-18	Dissolved	Water	3005A	
400-133233-10	ARGWC-18	Dissolved	Water	3005A	
MB 400-340456/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-340456/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133190-K-9-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133190-K-9-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 340467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total/NA	Water	7470A	
400-133233-2	ARGWC-16	Total/NA	Water	7470A	
400-133233-3	EB-1-1-26-17	Total/NA	Water	7470A	
400-133233-4	ARGWC-17	Total/NA	Water	7470A	
400-133233-5	ARGWC-7	Total/NA	Water	7470A	
400-133233-6	ARGWC-9	Total/NA	Water	7470A	
400-133233-7	ARGWC-8	Total/NA	Water	7470A	
400-133233-8	FB-1-1-26-17	Total/NA	Water	7470A	
400-133233-9	ARGWC-10	Total/NA	Water	7470A	
400-133233-10	ARGWC-18	Total/NA	Water	7470A	
MB 400-340467/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-340467/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133233-1 MS	ARGWC-15	Total/NA	Water	7470A	
400-133233-1 MSD	ARGWC-15	Total/NA	Water	7470A	

Prep Batch: 340541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-9	ARGWC-10	Total Recoverable	Water	3005A	
400-133233-10	ARGWC-18	Total Recoverable	Water	3005A	
400-133233-10 - DL	ARGWC-18	Total Recoverable	Water	3005A	
MB 400-340541/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-340541/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133276-D-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133276-D-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 340674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total Recoverable	Water	6020	340456
400-133233-2	ARGWC-16	Total Recoverable	Water	6020	340456
400-133233-3	EB-1-1-26-17	Total Recoverable	Water	6020	340456
400-133233-4	ARGWC-17	Total Recoverable	Water	6020	340456
400-133233-5	ARGWC-7	Total Recoverable	Water	6020	340456
400-133233-6	ARGWC-9	Total Recoverable	Water	6020	340456
400-133233-7	ARGWC-8	Total Recoverable	Water	6020	340456
400-133233-8	FB-1-1-26-17	Total Recoverable	Water	6020	340456

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Metals (Continued)

Analysis Batch: 340674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-10	ARGWC-18	Dissolved	Water	6020	340456
MB 400-340456/1-A ^5	Method Blank	Total Recoverable	Water	6020	340456
LCS 400-340456/2-A	Lab Control Sample	Total Recoverable	Water	6020	340456
400-133190-K-9-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	340456
400-133190-K-9-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	340456

Analysis Batch: 340686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-10	ARGWC-18	Dissolved	Water	7470A	340020
MB 400-340020/14-A	Method Blank	Total/NA	Water	7470A	340020
LCS 400-340020/15-A	Lab Control Sample	Total/NA	Water	7470A	340020
400-133145-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	340020
400-133145-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	340020

Analysis Batch: 340770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total/NA	Water	7470A	340467
400-133233-2	ARGWC-16	Total/NA	Water	7470A	340467
400-133233-3	EB-1-1-26-17	Total/NA	Water	7470A	340467
400-133233-4	ARGWC-17	Total/NA	Water	7470A	340467
400-133233-5	ARGWC-7	Total/NA	Water	7470A	340467
400-133233-6	ARGWC-9	Total/NA	Water	7470A	340467
400-133233-7	ARGWC-8	Total/NA	Water	7470A	340467
400-133233-8	FB-1-1-26-17	Total/NA	Water	7470A	340467
400-133233-9	ARGWC-10	Total/NA	Water	7470A	340467
400-133233-10	ARGWC-18	Total/NA	Water	7470A	340467
MB 400-340467/14-A	Method Blank	Total/NA	Water	7470A	340467
LCS 400-340467/15-A	Lab Control Sample	Total/NA	Water	7470A	340467
400-133233-1 MS	ARGWC-15	Total/NA	Water	7470A	340467
400-133233-1 MSD	ARGWC-15	Total/NA	Water	7470A	340467

Analysis Batch: 340833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-9	ARGWC-10	Total Recoverable	Water	6020	340541
400-133233-10 - DL	ARGWC-18	Dissolved	Water	6020	340456
400-133233-10	ARGWC-18	Total Recoverable	Water	6020	340541
400-133233-10 - DL	ARGWC-18	Total Recoverable	Water	6020	340541
MB 400-340541/1-A ^5	Method Blank	Total Recoverable	Water	6020	340541
LCS 400-340541/2-A	Lab Control Sample	Total Recoverable	Water	6020	340541
400-133276-D-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	340541
400-133276-D-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	340541

General Chemistry

Analysis Batch: 340469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total/NA	Water	SM 2540C	
400-133233-2	ARGWC-16	Total/NA	Water	SM 2540C	
400-133233-3	EB-1-1-26-17	Total/NA	Water	SM 2540C	
400-133233-4	ARGWC-17	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

General Chemistry (Continued)

Analysis Batch: 340469 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-5	ARGWC-7	Total/NA	Water	SM 2540C	
400-133233-6	ARGWC-9	Total/NA	Water	SM 2540C	
400-133233-7	ARGWC-8	Total/NA	Water	SM 2540C	
400-133233-8	FB-1-1-26-17	Total/NA	Water	SM 2540C	
MB 400-340469/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-340469/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 340618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-9	ARGWC-10	Total/NA	Water	SM 2540C	
400-133233-10	ARGWC-18	Total/NA	Water	SM 2540C	
MB 400-340618/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-340618/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133233-9 DU	ARGWC-10	Total/NA	Water	SM 2540C	
400-133233-10 DU	ARGWC-18	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-340731/4
Matrix: Water
Analysis Batch: 340731

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/01/17 23:39	1
Fluoride	<0.082		0.20	0.082	mg/L			02/01/17 23:39	1
Sulfate	<0.70		1.0	0.70	mg/L			02/01/17 23:39	1

Lab Sample ID: LCS 400-340731/5
Matrix: Water
Analysis Batch: 340731

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.76		mg/L		98	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 400-340731/6
Matrix: Water
Analysis Batch: 340731

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.77		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

Lab Sample ID: 400-133190-J-6 MS
Matrix: Water
Analysis Batch: 340731

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30		100	127		mg/L		96	80 - 120
Fluoride	<0.82		100	105		mg/L		105	80 - 120
Sulfate	<7.0		100	108		mg/L		108	80 - 120

Lab Sample ID: 400-133190-J-6 MSD
Matrix: Water
Analysis Batch: 340731

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	30		100	127		mg/L		96	80 - 120	0	20
Fluoride	<0.82		100	105		mg/L		105	80 - 120	0	20
Sulfate	<7.0		100	108		mg/L		108	80 - 120	0	20

Lab Sample ID: MB 400-340798/4
Matrix: Water
Analysis Batch: 340798

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/02/17 16:23	1
Fluoride	<0.082		0.20	0.082	mg/L			02/02/17 16:23	1
Sulfate	<0.70		1.0	0.70	mg/L			02/02/17 16:23	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-340798/5
Matrix: Water
Analysis Batch: 340798

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

Lab Sample ID: LCSD 400-340798/6
Matrix: Water
Analysis Batch: 340798

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.87		mg/L		99	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	1	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

Lab Sample ID: 400-132828-A-14 MS
Matrix: Water
Analysis Batch: 340798

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	310		100	403		mg/L		98	80 - 120
Fluoride	<0.82		100	108		mg/L		108	80 - 120
Sulfate	580	E	100	680	E 4	mg/L		98	80 - 120

Lab Sample ID: 400-132828-A-14 MSD
Matrix: Water
Analysis Batch: 340798

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	310		100	403		mg/L		98	80 - 120	0	20
Fluoride	<0.82		100	108		mg/L		108	80 - 120	0	20
Sulfate	580	E	100	680	E 4	mg/L		98	80 - 120	0	20

Lab Sample ID: MB 400-340885/4
Matrix: Water
Analysis Batch: 340885

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			02/03/17 11:10	1
Fluoride	<0.082		0.20	0.082	mg/L			02/03/17 11:10	1
Sulfate	<0.70		1.0	0.70	mg/L			02/03/17 11:10	1

Lab Sample ID: LCS 400-340885/5
Matrix: Water
Analysis Batch: 340885

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.76		mg/L		98	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-340885/6
Matrix: Water
Analysis Batch: 340885

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.75		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	1	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	15

Lab Sample ID: 400-133233-9 MS
Matrix: Water
Analysis Batch: 340885

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.9		10.0	14.0		mg/L		100	80 - 120		
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120		
Sulfate	<0.70		10.0	11.1		mg/L		111	80 - 120		

Lab Sample ID: 400-133233-9 MSD
Matrix: Water
Analysis Batch: 340885

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.9		10.0	14.0		mg/L		101	80 - 120	0	20
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120	0	20
Sulfate	<0.70		10.0	11.1		mg/L		111	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-340456/1-A ^5
Matrix: Water
Analysis Batch: 340674

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 340456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 14:03	5
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		01/31/17 11:45	02/01/17 14:03	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 14:03	5
Barium, Dissolved	<0.00049		0.0025	0.00049	mg/L		01/31/17 11:45	02/01/17 14:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 14:03	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 14:03	5
Boron	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 14:03	5
Boron, Dissolved	<0.021		0.050	0.021	mg/L		01/31/17 11:45	02/01/17 14:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 14:03	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		01/31/17 11:45	02/01/17 14:03	5
Calcium	<0.13		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 14:03	5
Calcium, Dissolved	<0.13		0.25	0.13	mg/L		01/31/17 11:45	02/01/17 14:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 14:03	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		01/31/17 11:45	02/01/17 14:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 14:03	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		01/31/17 11:45	02/01/17 14:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 14:03	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		01/31/17 11:45	02/01/17 14:03	5
Antimony	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 14:03	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: MB 400-340456/1-A ^5
Matrix: Water
Analysis Batch: 340674

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 340456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		01/31/17 11:45	02/01/17 14:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 14:03	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		01/31/17 11:45	02/01/17 14:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 14:03	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		01/31/17 11:45	02/01/17 14:03	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 14:03	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		01/31/17 11:45	02/01/17 14:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 14:03	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		01/31/17 11:45	02/01/17 14:03	5

Lab Sample ID: LCS 400-340456/2-A
Matrix: Water
Analysis Batch: 340674

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 340456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0514		mg/L		103	80 - 120
Arsenic, Dissolved	0.0500	0.0514		mg/L		103	80 - 120
Barium	0.0500	0.0507		mg/L		101	80 - 120
Barium, Dissolved	0.0500	0.0507		mg/L		101	80 - 120
Beryllium	0.0500	0.0517		mg/L		103	80 - 120
Beryllium, Dissolved	0.0500	0.0517		mg/L		103	80 - 120
Boron	0.100	0.104		mg/L		104	80 - 120
Boron, Dissolved	0.100	0.104		mg/L		104	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Cadmium, Dissolved	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	4.98		mg/L		100	80 - 120
Calcium, Dissolved	5.00	4.98		mg/L		100	80 - 120
Chromium	0.0500	0.0510		mg/L		102	80 - 120
Chromium, Dissolved	0.0500	0.0510		mg/L		102	80 - 120
Cobalt	0.0500	0.0473		mg/L		95	80 - 120
Cobalt, Dissolved	0.0500	0.0473		mg/L		95	80 - 120
Lead	0.0500	0.0535		mg/L		107	80 - 120
Lead, Dissolved	0.0500	0.0535		mg/L		107	80 - 120
Antimony	0.0500	0.0512		mg/L		102	80 - 120
Antimony, Dissolved	0.0500	0.0512		mg/L		102	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Molybdenum, Dissolved	0.100	0.103		mg/L		103	80 - 120
Selenium	0.0500	0.0513		mg/L		103	80 - 120
Selenium, Dissolved	0.0500	0.0513		mg/L		103	80 - 120
Lithium	0.0500	0.0521		mg/L		104	80 - 120
Lithium, Dissolved	0.0500	0.0521		mg/L		104	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120
Thallium, Dissolved	0.0100	0.0103		mg/L		103	80 - 120

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: 400-133190-K-9-B MS ^5

Matrix: Water

Analysis Batch: 340674

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 340456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.084		0.0500	0.140		mg/L		110	75 - 125
Arsenic, Dissolved	0.084		0.0500	0.140		mg/L		110	75 - 125
Barium	0.78		0.0500	0.833	4	mg/L		107	75 - 125
Barium, Dissolved	0.78		0.0500	0.833	4	mg/L		107	75 - 125
Beryllium	<0.00034		0.0500	0.0547		mg/L		109	75 - 125
Beryllium, Dissolved	<0.00034		0.0500	0.0547		mg/L		109	75 - 125
Boron	0.074		0.100	0.185		mg/L		111	75 - 125
Boron, Dissolved	0.074		0.100	0.185		mg/L		111	75 - 125
Cadmium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Cadmium, Dissolved	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Chromium	<0.0011		0.0500	0.0515		mg/L		103	75 - 125
Chromium, Dissolved	<0.0011		0.0500	0.0515		mg/L		103	75 - 125
Cobalt	0.00093	J	0.0500	0.0512		mg/L		101	75 - 125
Cobalt, Dissolved	0.00093	J	0.0500	0.0512		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0541		mg/L		108	75 - 125
Lead, Dissolved	<0.00035		0.0500	0.0541		mg/L		108	75 - 125
Antimony	<0.0010		0.0500	0.0526		mg/L		105	75 - 125
Antimony, Dissolved	<0.0010		0.0500	0.0526		mg/L		105	75 - 125
Molybdenum	0.0044	J	0.100	0.110		mg/L		105	75 - 125
Molybdenum, Dissolved	0.0044	J	0.100	0.110		mg/L		105	75 - 125
Selenium	0.00040	J	0.0500	0.0528		mg/L		105	75 - 125
Selenium, Dissolved	0.00040	J	0.0500	0.0528		mg/L		105	75 - 125
Lithium	0.017		0.0500	0.0676		mg/L		101	75 - 125
Lithium, Dissolved	0.017		0.0500	0.0676		mg/L		101	75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125
Thallium, Dissolved	<0.000085		0.0100	0.0105		mg/L		105	75 - 125

Lab Sample ID: 400-133190-K-9-C MSD ^5

Matrix: Water

Analysis Batch: 340674

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 340456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.084		0.0500	0.137		mg/L		105	75 - 125	2	20
Arsenic, Dissolved	0.084		0.0500	0.137		mg/L		105	75 - 125	2	20
Barium	0.78		0.0500	0.824	4	mg/L		90	75 - 125	1	20
Barium, Dissolved	0.78		0.0500	0.824	4	mg/L		90	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0538		mg/L		108	75 - 125	2	20
Beryllium, Dissolved	<0.00034		0.0500	0.0538		mg/L		108	75 - 125	2	20
Boron	0.074		0.100	0.192		mg/L		118	75 - 125	4	20
Boron, Dissolved	0.074		0.100	0.192		mg/L		118	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0509		mg/L		102	75 - 125	3	20
Cadmium, Dissolved	<0.00034		0.0500	0.0509		mg/L		102	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0521		mg/L		104	75 - 125	1	20
Chromium, Dissolved	<0.0011		0.0500	0.0521		mg/L		104	75 - 125	1	20
Cobalt	0.00093	J	0.0500	0.0525		mg/L		103	75 - 125	3	20
Cobalt, Dissolved	0.00093	J	0.0500	0.0525		mg/L		103	75 - 125	3	20
Lead	<0.00035		0.0500	0.0548		mg/L		110	75 - 125	1	20
Lead, Dissolved	<0.00035		0.0500	0.0548		mg/L		110	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: 400-133190-K-9-C MSD ^5
Matrix: Water
Analysis Batch: 340674

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 340456

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Antimony	<0.0010		0.0500	0.0510		mg/L		102	75 - 125	3	20
Antimony, Dissolved	<0.0010		0.0500	0.0510		mg/L		102	75 - 125	3	20
Molybdenum	0.0044	J	0.100	0.109		mg/L		104	75 - 125	1	20
Molybdenum, Dissolved	0.0044	J	0.100	0.109		mg/L		104	75 - 125	1	20
Selenium	0.00040	J	0.0500	0.0536		mg/L		106	75 - 125	2	20
Selenium, Dissolved	0.00040	J	0.0500	0.0536		mg/L		106	75 - 125	2	20
Lithium	0.017		0.0500	0.0681		mg/L		103	75 - 125	1	20
Lithium, Dissolved	0.017		0.0500	0.0681		mg/L		103	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125	1	20
Thallium, Dissolved	<0.000085		0.0100	0.0106		mg/L		106	75 - 125	1	20

Lab Sample ID: MB 400-340541/1-A ^5
Matrix: Water
Analysis Batch: 340833

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 340541

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/01/17 08:30	02/02/17 13:17	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/01/17 08:30	02/02/17 13:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/01/17 08:30	02/02/17 13:17	5
Boron	<0.021		0.050	0.021	mg/L		02/01/17 08:30	02/02/17 13:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/01/17 08:30	02/02/17 13:17	5
Calcium	<0.13		0.25	0.13	mg/L		02/01/17 08:30	02/02/17 13:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/01/17 08:30	02/02/17 13:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/01/17 08:30	02/02/17 13:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/01/17 08:30	02/02/17 13:17	5
Antimony	<0.0010		0.0025	0.0010	mg/L		02/01/17 08:30	02/02/17 13:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/01/17 08:30	02/02/17 13:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/01/17 08:30	02/02/17 13:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/01/17 08:30	02/02/17 13:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/01/17 08:30	02/02/17 13:17	5

Lab Sample ID: LCS 400-340541/2-A
Matrix: Water
Analysis Batch: 340833

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 340541

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Arsenic	0.0500	0.0523		mg/L		105	80 - 120
Barium	0.0500	0.0522		mg/L		104	80 - 120
Beryllium	0.0500	0.0530		mg/L		106	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0522		mg/L		104	80 - 120
Calcium	5.00	5.10		mg/L		102	80 - 120
Chromium	0.0500	0.0519		mg/L		104	80 - 120
Cobalt	0.0500	0.0512		mg/L		102	80 - 120
Lead	0.0500	0.0535		mg/L		107	80 - 120
Antimony	0.0500	0.0525		mg/L		105	80 - 120
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Lithium	0.0500	0.0565		mg/L		113	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: LCS 400-340541/2-A
Matrix: Water
Analysis Batch: 340833

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 340541

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.0100	0.0105		mg/L		105	80 - 120

Lab Sample ID: 400-133276-D-1-B MS ^5
Matrix: Water
Analysis Batch: 340833

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 340541

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.00046		0.0500	0.0536		mg/L		107	75 - 125
Barium	0.023		0.0500	0.0780		mg/L		110	75 - 125
Beryllium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125
Boron	0.060		0.100	0.174		mg/L		113	75 - 125
Cadmium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125
Calcium	2.2		5.00	7.30		mg/L		103	75 - 125
Chromium	0.0011	J	0.0500	0.0541		mg/L		108	75 - 125
Cobalt	<0.00040		0.0500	0.0526		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0528		mg/L		106	75 - 125
Antimony	<0.0010		0.0500	0.0550		mg/L		110	75 - 125
Molybdenum	<0.00085		0.100	0.105		mg/L		105	75 - 125
Selenium	0.00044	J	0.0500	0.0526		mg/L		104	75 - 125
Lithium	0.0088		0.0500	0.0574		mg/L		97	75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125

Lab Sample ID: 400-133276-D-1-C MSD ^5
Matrix: Water
Analysis Batch: 340833

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 340541

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	<0.00046		0.0500	0.0535		mg/L		107	75 - 125	0	20
Barium	0.023		0.0500	0.0778		mg/L		109	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0533		mg/L		107	75 - 125	2	20
Boron	0.060		0.100	0.167		mg/L		107	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0530		mg/L		106	75 - 125	1	20
Calcium	2.2		5.00	7.39		mg/L		105	75 - 125	1	20
Chromium	0.0011	J	0.0500	0.0541		mg/L		108	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0531		mg/L		106	75 - 125	1	20
Lead	<0.00035		0.0500	0.0533		mg/L		107	75 - 125	1	20
Antimony	<0.0010		0.0500	0.0536		mg/L		107	75 - 125	3	20
Molybdenum	<0.00085		0.100	0.105		mg/L		105	75 - 125	0	20
Selenium	0.00044	J	0.0500	0.0536		mg/L		106	75 - 125	2	20
Lithium	0.0088		0.0500	0.0593		mg/L		101	75 - 125	3	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	1	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-340020/14-A
Matrix: Water
Analysis Batch: 340686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 340020

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		01/27/17 09:16	02/01/17 13:09	1

Lab Sample ID: LCS 400-340020/15-A
Matrix: Water
Analysis Batch: 340686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340020

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury, Dissolved	0.00101	0.00111		mg/L		111	80 - 120

Lab Sample ID: 400-133145-B-1-C MS
Matrix: Water
Analysis Batch: 340686

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 340020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury, Dissolved	<0.000070		0.00201	0.00215		mg/L		107	80 - 120

Lab Sample ID: 400-133145-B-1-D MSD
Matrix: Water
Analysis Batch: 340686

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 340020

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury, Dissolved	<0.000070		0.00201	0.00228		mg/L		113	80 - 120	6	20

Lab Sample ID: MB 400-340467/14-A
Matrix: Water
Analysis Batch: 340770

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 340467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000766	J	0.00020	0.000070	mg/L		01/31/17 12:31	02/02/17 13:07	1

Lab Sample ID: LCS 400-340467/15-A
Matrix: Water
Analysis Batch: 340770

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00111		mg/L		110	80 - 120

Lab Sample ID: 400-133233-1 MS
Matrix: Water
Analysis Batch: 340770

Client Sample ID: ARGWC-15
Prep Type: Total/NA
Prep Batch: 340467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00235		mg/L		117	80 - 120

Lab Sample ID: 400-133233-1 MSD
Matrix: Water
Analysis Batch: 340770

Client Sample ID: ARGWC-15
Prep Type: Total/NA
Prep Batch: 340467

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00224		mg/L		111	80 - 120	5	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

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

Lab Sample ID: MB 400-340469/1
Matrix: Water
Analysis Batch: 340469

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	<3.4		5.0	3.4	mg/L			01/31/17 14:32	1

Lab Sample ID: LCS 400-340469/2
Matrix: Water
Analysis Batch: 340469

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	293	282		mg/L		96	78 - 122

Lab Sample ID: MB 400-340618/1
Matrix: Water
Analysis Batch: 340618

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	<3.4		5.0	3.4	mg/L			02/01/17 11:53	1

Lab Sample ID: LCS 400-340618/2
Matrix: Water
Analysis Batch: 340618

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	293	284		mg/L		97	78 - 122

Lab Sample ID: 400-133233-9 DU
Matrix: Water
Analysis Batch: 340618

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	86		86.0		mg/L		0	5

Lab Sample ID: 400-133233-10 DU
Matrix: Water
Analysis Batch: 340618

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	460		472		mg/L		2	5

CHAIN OF CUSTODY RECORD



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(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P P P P P P P		A B D N U W B E R		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		# of		P P P P P P P P		A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	
REPORT TO:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Joju Abraham		P P P P P P P P		A B D N U W B E R		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
REQUESTED COMPLETION DATE:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Plant Arkwright Pond 3		P P P P P P P P		A B D N U W B E R		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
PROJECT NAME/STATE:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Phase II CCR		P P P P P P P P		A B D N U W B E R		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
PROJECT #:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Phase II CCR		P P P P P P P P		A B D N U W B E R		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION	CONTAINER TYPE	ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION
1-26-17	1010	GW	ARGWC-15				
1-26-17	1255	GW	ARGWC-16				
1-26-17	1355	W	EB-1-1-26-17				
1-26-17	1415	GW	ARGWC-17				
1-26-17	1535	GW	ARGWC-7				
1-26-17	1720	GW	ARGWC-9				
1-26-17	1730	GW	ARGWC-8				
1-26-17	1645	W	FB-1-1-26-17				
1-27-17	1155	GW	ARGWC-10				
1-27-17	1530	GW	ARGWC-18				
SAMPLED BY AND TITLE:				REQUISITIONED BY:			
P. Parker, B. Reynolds (Ac)				[Signature]			
RECEIVED BY:				RELINQUISHED BY:			
[Signature]				[Signature]			
DATE/TIME:				DATE/TIME:			
1-27-17 / 1600				1/27/18 / 1828			
RECEIVED BY LAB:				LAB #:			
[Signature]				10-155035			
DATE/TIME:				ENTERED INTO LIMS:			
1-27-17 0949				[Signature]			
Temperature:				Tracking #:			
15°C				[Signature]			
pH checked:				FOR LAB USE ONLY			
Yes No: N/A				LAB #			
Yes No: N/A				10-155035			
Yes No: N/A				ENTERED INTO LIMS			
Yes No: N/A				Tracking #			
Yes No: N/A				[Signature]			

0.01, 2.99, 3.16, 2

Plant Arkwright - Ash Pond 3 COC.xlsx





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PAGE: 1 OF 1

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		Metals App. III & IV (EPA 6020/7470) (Dissolved Metals)		# of		1 - HCl, 56°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		Metals (see attached) (EPA 6020)		3		2 - H ₂ SO ₄ , 56°C	
241 Ralph McGill Blvd SE B10185		Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2640C)		7		3 - HNO ₃	
Atlanta, GA 30308		Radium 226 & 228 (SW-846 9916/9320)		3		4 - NaOH, 56°C	
REPORT TO:		C O N T A I N E R S		3		5 - NaOH/ZnAc, 56°C	
Joju Abraham		↓		3		6 - Na ₂ S ₂ O ₃ , 56°C	
CC: Maria Padilla				3		7 - 56°C not frozen	
Heath McCordle				3			
PO #:				3			
laburch@southernco.com				3			
PROJECT NAME/STATE:				3			
Plant Arkwright Pond 3				3			
PROJECT #:				3			
Phase II CCR				3			
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	RELINQUISHED BY	DATE/TIME
1-25-17	1520	GW	✓		ARGWA-20	<i>[Signature]</i>	1-27-17 / 1000
1-27-17	1530	GW	✓		ARGWC-18	<i>[Signature]</i>	1-27-17 / 1806

0.0/3.9u JAW

Plant Arkwright - Ash Pond 3 COC.xlsx



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133233-1
SDG Number: Pond 3 Phase 2

Login Number: 133233

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 3.9°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-1
SDG: Pond 3 Phase 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133233-2

TestAmerica Sample Delivery Group: Pond 3 Phase 2

Client Project/Site: CCR Plant Arkwright

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/6/2017 11:16:42 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Job ID: 400-133233-2

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-133233-2**

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-291390: The LCS was inadvertently spiked with 0.5mL instead of the usual 1.0mL. The prep batch reflects the actual amount added to the LCS. ARGWC-15 (400-133233-1), ARGWC-16 (400-133233-2), EB-1-1-26-17 (400-133233-3), ARGWC-17 (400-133233-4), ARGWC-7 (400-133233-5), ARGWC-7 (400-133233-5[DU]), ARGWC-9 (400-133233-6), ARGWC-8 (400-133233-7), FB-1-1-26-17 (400-133233-8), ARGWC-10 (400-133233-9) and ARGWC-18 (400-133233-10)

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133233-1	ARGWC-15	Water	01/26/17 10:10	01/28/17 08:49
400-133233-2	ARGWC-16	Water	01/26/17 12:55	01/28/17 08:49
400-133233-3	EB-1-1-26-17	Water	01/26/17 13:55	01/28/17 08:49
400-133233-4	ARGWC-17	Water	01/26/17 14:15	01/28/17 08:49
400-133233-5	ARGWC-7	Water	01/26/17 15:35	01/28/17 08:49
400-133233-6	ARGWC-9	Water	01/26/17 17:20	01/28/17 08:49
400-133233-7	ARGWC-8	Water	01/26/17 17:30	01/28/17 08:49
400-133233-8	FB-1-1-26-17	Water	01/26/17 16:45	01/28/17 08:49
400-133233-9	ARGWC-10	Water	01/27/17 11:55	01/28/17 08:49
400-133233-10	ARGWC-18	Water	01/27/17 15:30	01/28/17 08:49



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-15

Lab Sample ID: 400-133233-1

Date Collected: 01/26/17 10:10

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0592	U	0.107	0.107	1.00	0.191	pCi/L	02/07/17 12:07	03/01/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		40 - 110					02/07/17 12:07	03/01/17 06:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.282	0.283	1.00	0.469	pCi/L	02/07/17 14:42	02/27/17 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		40 - 110					02/07/17 14:42	02/27/17 10:25	1
Y Carrier	80.7		40 - 110					02/07/17 14:42	02/27/17 10:25	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	0.276	U	0.302	0.302	5.00	0.469	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-16

Lab Sample ID: 400-133233-2

Date Collected: 01/26/17 12:55

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.168	U	0.148	0.149	1.00	0.224	pCi/L	02/07/17 12:07	03/01/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					02/07/17 12:07	03/01/17 06:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0872	U	0.226	0.226	1.00	0.391	pCi/L	02/07/17 14:42	02/27/17 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					02/07/17 14:42	02/27/17 10:25	1
Y Carrier	83.0		40 - 110					02/07/17 14:42	02/27/17 10:25	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	0.255	U	0.270	0.271	5.00	0.391	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
 SDG: Pond 3 Phase 2

Client Sample ID: EB-1-1-26-17

Lab Sample ID: 400-133233-3

Date Collected: 01/26/17 13:55

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0442	U	0.103	0.103	1.00	0.191	pCi/L	02/07/17 12:07	03/01/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/07/17 12:07	03/01/17 06:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0293	U	0.199	0.199	1.00	0.352	pCi/L	02/07/17 14:42	02/27/17 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/07/17 14:42	02/27/17 10:25	1
Y Carrier	87.1		40 - 110					02/07/17 14:42	02/27/17 10:25	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	0.0735	U	0.224	0.224	5.00	0.352	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-17

Lab Sample ID: 400-133233-4

Date Collected: 01/26/17 14:15

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117	U	0.130	0.130	1.00	0.209	pCi/L	02/07/17 12:07	03/01/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		40 - 110					02/07/17 12:07	03/01/17 06:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0625	U	0.236	0.236	1.00	0.412	pCi/L	02/07/17 14:42	02/27/17 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		40 - 110					02/07/17 14:42	02/27/17 10:25	1
Y Carrier	82.2		40 - 110					02/07/17 14:42	02/27/17 10:25	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	0.180	U	0.269	0.270	5.00	0.412	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-7

Lab Sample ID: 400-133233-5

Date Collected: 01/26/17 15:35

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.205	U	0.146	0.148	1.00	0.207	pCi/L	02/07/17 12:07	03/01/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/07/17 12:07	03/01/17 06:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.165	U	0.216	0.217	1.00	0.360	pCi/L	02/07/17 14:42	02/27/17 10:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/07/17 14:42	02/27/17 10:26	1
Y Carrier	84.9		40 - 110					02/07/17 14:42	02/27/17 10:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.370		0.261	0.262	5.00	0.360	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-9

Lab Sample ID: 400-133233-6

Date Collected: 01/26/17 17:20

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0879	U	0.109	0.110	1.00	0.180	pCi/L	02/07/17 12:07	03/01/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					02/07/17 12:07	03/01/17 06:42	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	0.215	0.215	1.00	0.387	pCi/L	02/07/17 14:42	02/27/17 10:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					02/07/17 14:42	02/27/17 10:26	1
Y Carrier	81.1		40 - 110					02/07/17 14:42	02/27/17 10:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0879	U	0.241	0.242	5.00	0.387	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-8

Lab Sample ID: 400-133233-7

Date Collected: 01/26/17 17:30

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0933	U	0.148	0.148	1.00	0.255	pCi/L	02/07/17 12:07	03/01/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					02/07/17 12:07	03/01/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.251	U	0.279	0.280	1.00	0.457	pCi/L	02/07/17 14:42	02/27/17 10:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					02/07/17 14:42	02/27/17 10:28	1
Y Carrier	82.6		40 - 110					02/07/17 14:42	02/27/17 10:28	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	0.345	U	0.315	0.316	5.00	0.457	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: FB-1-1-26-17

Lab Sample ID: 400-133233-8

Date Collected: 01/26/17 16:45

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00267	U	0.0885	0.0885	1.00	0.184	pCi/L	02/07/17 12:07	03/01/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					02/07/17 12:07	03/01/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00618	U	0.206	0.206	1.00	0.371	pCi/L	02/07/17 14:42	02/27/17 10:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					02/07/17 14:42	02/27/17 10:28	1
Y Carrier	81.9		40 - 110					02/07/17 14:42	02/27/17 10:28	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	-0.00352	U	0.224	0.224	5.00	0.371	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-133233-9

Date Collected: 01/27/17 11:55

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0737	U	0.115	0.115	1.00	0.199	pCi/L	02/07/17 12:07	03/01/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					02/07/17 12:07	03/01/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.150	U	0.232	0.232	1.00	0.434	pCi/L	02/07/17 14:42	02/27/17 10:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					02/07/17 14:42	02/27/17 10:28	1
Y Carrier	84.9		40 - 110					02/07/17 14:42	02/27/17 10:28	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	-0.0761	U	0.259	0.259	5.00	0.434	pCi/L		03/03/17 08:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-18

Lab Sample ID: 400-133233-10

Date Collected: 01/27/17 15:30

Matrix: Water

Date Received: 01/28/17 08:49

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.128	U	0.145	0.146	1.00	0.236	pCi/L	02/07/17 12:07	03/01/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					02/07/17 12:07	03/01/17 06:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.513		0.288	0.292	1.00	0.438	pCi/L	02/07/17 14:42	02/27/17 10:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					02/07/17 14:42	02/27/17 10:28	1
Y Carrier	81.9		40 - 110					02/07/17 14:42	02/27/17 10:28	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	0.641		0.322	0.326	5.00	0.438	pCi/L		03/03/17 08:59	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-15

Date Collected: 01/26/17 10:10

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294479	02/27/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: ARGWC-16

Date Collected: 01/26/17 12:55

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294479	02/27/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: EB-1-1-26-17

Date Collected: 01/26/17 13:55

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294479	02/27/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: ARGWC-17

Date Collected: 01/26/17 14:15

Date Received: 01/28/17 08:49

Lab Sample ID: 400-133233-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294479	02/27/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-7

Lab Sample ID: 400-133233-5

Date Collected: 01/26/17 15:35

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294479	02/27/17 10:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: ARGWC-9

Lab Sample ID: 400-133233-6

Date Collected: 01/26/17 17:20

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294479	02/27/17 10:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: ARGWC-8

Lab Sample ID: 400-133233-7

Date Collected: 01/26/17 17:30

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:43	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294473	02/27/17 10:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: FB-1-1-26-17

Lab Sample ID: 400-133233-8

Date Collected: 01/26/17 16:45

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:43	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294473	02/27/17 10:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-133233-9

Date Collected: 01/27/17 11:55

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:43	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294473	02/27/17 10:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Client Sample ID: ARGWC-18

Lab Sample ID: 400-133233-10

Date Collected: 01/27/17 15:30

Matrix: Water

Date Received: 01/28/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291360	02/07/17 12:07	BME	TAL SL
Total/NA	Analysis	9315		1	295282	03/01/17 06:43	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291390	02/07/17 14:42	BME	TAL SL
Total/NA	Analysis	9320		1	294473	02/27/17 10:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295903	03/03/17 08:59	EAW	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Rad

Prep Batch: 291360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total/NA	Water	PrecSep-21	
400-133233-2	ARGWC-16	Total/NA	Water	PrecSep-21	
400-133233-3	EB-1-1-26-17	Total/NA	Water	PrecSep-21	
400-133233-4	ARGWC-17	Total/NA	Water	PrecSep-21	
400-133233-5	ARGWC-7	Total/NA	Water	PrecSep-21	
400-133233-6	ARGWC-9	Total/NA	Water	PrecSep-21	
400-133233-7	ARGWC-8	Total/NA	Water	PrecSep-21	
400-133233-8	FB-1-1-26-17	Total/NA	Water	PrecSep-21	
400-133233-9	ARGWC-10	Total/NA	Water	PrecSep-21	
400-133233-10	ARGWC-18	Total/NA	Water	PrecSep-21	
MB 160-291360/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-291360/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133233-5 DU	ARGWC-7	Total/NA	Water	PrecSep-21	

Prep Batch: 291390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133233-1	ARGWC-15	Total/NA	Water	PrecSep_0	
400-133233-2	ARGWC-16	Total/NA	Water	PrecSep_0	
400-133233-3	EB-1-1-26-17	Total/NA	Water	PrecSep_0	
400-133233-4	ARGWC-17	Total/NA	Water	PrecSep_0	
400-133233-5	ARGWC-7	Total/NA	Water	PrecSep_0	
400-133233-6	ARGWC-9	Total/NA	Water	PrecSep_0	
400-133233-7	ARGWC-8	Total/NA	Water	PrecSep_0	
400-133233-8	FB-1-1-26-17	Total/NA	Water	PrecSep_0	
400-133233-9	ARGWC-10	Total/NA	Water	PrecSep_0	
400-133233-10	ARGWC-18	Total/NA	Water	PrecSep_0	
MB 160-291390/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-291390/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-133233-5 DU	ARGWC-7	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-291360/1-A
Matrix: Water
Analysis Batch: 295282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 291360

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.003970	U	0.111	0.111	1.00	0.224	pCi/L	02/07/17 12:07	03/01/17 06:40	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/07/17 12:07	03/01/17 06:40	1

Lab Sample ID: LCS 160-291360/2-A
Matrix: Water
Analysis Batch: 295282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 291360

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	6.01	7.313		0.933	1.00	0.260	pCi/L	122	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	85.8		40 - 110						

Lab Sample ID: 400-133233-5 DU
Matrix: Water
Analysis Batch: 295282

Client Sample ID: ARGWC-7
Prep Type: Total/NA
Prep Batch: 291360

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.205	U	0.1781	U	0.153	1.00	0.225	pCi/L	0.09	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	87.0		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-291390/1-A
Matrix: Water
Analysis Batch: 294479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 291390

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1714	U	0.253	0.254	1.00	0.424	pCi/L	02/07/17 14:42	02/27/17 10:25	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/07/17 14:42	02/27/17 10:25	1
Y Carrier	80.7		40 - 110					02/07/17 14:42	02/27/17 10:25	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

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

Lab Sample ID: LCS 160-291390/2-A
Matrix: Water
Analysis Batch: 294479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 291390

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	6.90	6.883		0.864	1.00	0.373	pCi/L	100	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.8		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: 400-133233-5 DU
Matrix: Water
Analysis Batch: 294479

Client Sample ID: ARGWC-7
Prep Type: Total/NA
Prep Batch: 291390

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.165	U	0.1328	U	0.224	1.00	0.379	pCi/L	0.07	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.0		40 - 110
Y Carrier	81.9		40 - 110

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

Lab Sample ID: 400-133233-5 DU
Matrix: Water
Analysis Batch: 295903

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

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.370		0.3109	U	0.271	5.00	0.379	pCi/L	0.11	

CHAIN OF CUSTODY RECORD



Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P P P P P P P		A B C D E F G H I J K L M N O P Q R S T U V W X Y Z		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		# of		P P P P P P P P		A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	
REPORT TO:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Joju Abraham		P P P P P P P P		P P P P P P P P		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
REQUESTED COMPLETION DATE:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
laburch@southernco.com		P P P P P P P P		P P P P P P P P		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
PROJECT NAME/STATE:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Plant Arkwright Pond 3		P P P P P P P P		P P P P P P P P		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
PROJECT #:		CONTAINER TYPE		CONTAINER TYPE		PRESERVATION	
Phase II CCR		P P P P P P P P		P P P P P P P P		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION	REMARKS/ADDITIONAL INFORMATION
1-26-17	1010	GW	✓ ARGWC-15	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1255	GW	✓ ARGWC-16	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1355	W	✓ EB-1-1-26-17	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1415	GW	✓ ARGWC-17	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1535	GW	✓ ARGWC-7	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1720	GW	✓ ARGWC-9	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1730	GW	✓ ARGWC-8	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-26-17	1645	W	✓ FB-1-1-26-17	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-27-17	1155	GW	✓ ARGWC-10	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
1-27-17	1530	GW	✓ ARGWC-18	Metals App. III & IV (EPA 6020/7470) Metals (see attached) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-946 9316/9320)	P P P P P P P P	1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	

400-133233 COC

RECEIVED BY LAB: [Signature]
DATE/TIME: 1-27-17 09:09

RECEIVED BY: [Signature]
DATE/TIME: 1-27-17 1600

LAB: 10-145035
Entered into LIMS: [Signature]

REQUISITIONED BY: [Signature] DATE/TIME: 1/27/18 18:28
RELINQUISHED BY: [Signature] DATE/TIME: [Signature]

SAMPLE SHIPPED VIA: COURIER CLIENT OTHER: FS
BPS: 1 FED-EX USPS COURIER CLIENT OTHER: FS
Gastroly Seal: Intact/Not Intact
Temperature: Max
pH checked: Yes No: N/A Yes No: N/A

Plant Arkwright - Ash Pond 3 COC.xlsx

0.01, 2.99, 3.16, 2



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asf-lab.com

Form with fields for CLIENT NAME, CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER, REPORT TO, REQUESTED COMPLETION DATE, PROJECT NAME/STATE, PROJECT #, COLLECTION DATE, MATRIX CODE, SAMPLE IDENTIFICATION, ANALYSIS REQUESTED, CONTAINER TYPE, CONTAINER PRESERVATION, REMARKS/ADDITIONAL INFORMATION, and SIGNATURES.

Handwritten date: 0.0/3.9.16

Plant Arkwright - Ash Pond 3 COC-xisx

Plant Arkwright State Constituent



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133233-2
SDG Number: Pond 3 Phase 2

Login Number: 133233

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 3.9°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-133233-2
SDG: Pond 3 Phase 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2017-01-24 13:20:55

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 45 ft

Pump placement from TOC 40 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.27 ft
Screen Length 10 ft
Depth to Water 35.58 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.367339 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 46 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	12:47:37	12005.82	19.77	5.98	87.52	7.77	35.80	6.19	109.00
Last 5	12:52:37	12305.82	19.78	5.99	87.11	7.45	35.80	6.19	109.36
Last 5	12:57:37	12605.81	19.82	5.99	87.21	7.54	35.80	6.15	109.80
Last 5	13:02:37	12905.80	19.77	5.99	87.20	7.33	35.80	6.19	109.74
Last 5	13:07:41	13209.80	19.79	5.98	87.56	7.40	35.80	6.19	110.16
Variance 0			0.04	0.00	0.10			-0.04	0.44
Variance 1			-0.06	-0.00	-0.01			0.03	-0.06
Variance 2			0.02	-0.00	0.37			0.01	0.42

Notes

Collected at 13:15. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-24 15:51:15

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 35 ft

Pump placement from TOC 27.3 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 23.20 ft

Pumping Information:

Final Pumping Rate 215 mL/min
Total System Volume 1.150153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 19.5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:24:26	3599.97	18.48	5.89	86.29	1.85	23.30	5.77	107.25
Last 5	15:29:26	3899.97	18.52	5.89	86.03	1.28	23.30	5.77	106.60
Last 5	15:34:26	4199.97	18.92	5.89	85.25	1.33	23.30	5.72	106.35
Last 5	15:39:26	4499.97	19.08	5.90	85.01	1.59	23.30	5.73	106.40
Last 5	15:44:26	4799.97	18.92	5.89	85.04	1.20	23.30	5.75	106.83
Variance 0			0.40	-0.00	-0.78			-0.05	-0.25
Variance 1			0.15	0.01	-0.24			0.01	0.04
Variance 2			-0.15	-0.01	0.03			0.02	0.43

Notes

Sampled at 15:50. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-23 17:45:27

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 35 ft

Pump placement from TOC 27.3 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.33 ft
Screen Length 10 ft
Depth to Water 16.98 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.150153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 8.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	17:23:14	2100.01	17.94	5.95	179.53	6.31	17.60	2.94	97.51
Last 5	17:28:14	2400.00	17.89	5.96	179.60	5.74	17.60	2.94	97.59
Last 5	17:33:14	2700.01	17.90	5.95	178.92	5.32	17.60	2.95	98.78
Last 5	17:38:14	3000.00	17.85	5.94	178.88	4.95	17.60	2.94	99.48
Last 5	17:43:14	3299.96	17.81	5.94	178.80	4.30	17.60	2.95	99.82
Variance 0			0.01	-0.01	-0.68			0.01	1.19
Variance 1			-0.04	-0.01	-0.04			-0.02	0.69
Variance 2			-0.05	-0.00	-0.08			0.02	0.35

Notes

Collected at 17:45. Cloudy 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-24 17:25:54

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 45 ft

Pump placement from TOC 38.2 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 24.65 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.367339 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 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%	+/- 0		+/- 0.2	+/- 0
Last 5	17:03:34	2100.00	17.29	5.82	939.99	0.89	25.00	1.46	97.81
Last 5	17:08:34	2400.00	17.27	5.82	914.07	0.82	25.00	1.68	97.54
Last 5	17:13:34	2700.00	17.23	5.82	898.60	0.71	25.00	1.83	97.25
Last 5	17:18:34	3000.00	17.23	5.82	888.05	0.65	25.00	1.91	97.28
Last 5	17:23:34	3300.00	17.15	5.82	881.05	0.73	25.00	1.97	97.02
Variance 0			-0.04	0.00	-15.47			0.14	-0.29
Variance 1			-0.00	-0.00	-10.55			0.08	0.03
Variance 2			-0.08	-0.00	-7.00			0.06	-0.26

Notes

Collected at 17:25. Sunny 60. DUP - 1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-23 15:27:04

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.24 ft
Screen Length 10 ft
Depth to Water 42.09 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 0.39 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 63 in
Total Volume Pumped 4.5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:04:05	2704.96	16.74	6.78	562.22	0.68	46.80	2.71	42.21
Last 5	15:09:05	3004.97	16.74	6.76	547.51	0.60	47.00	2.98	45.01
Last 5	15:14:10	3309.97	16.81	6.76	535.77	0.68	47.10	3.21	46.64
Last 5	15:19:11	3610.96	16.64	6.77	525.00	0.61	47.20	3.41	48.42
Last 5	15:24:12	3911.91	16.60	6.76	514.72	0.53	47.30	3.32	50.31
Variance 0			0.07	-0.01	-11.74			0.23	1.62
Variance 1			-0.17	0.01	-10.77			0.20	1.78
Variance 2			-0.04	-0.01	-10.28			-0.10	1.89

Notes

Collected at 15:30. Cloudy 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 15:34:20

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 50 ft

Pump placement from TOC 43.2 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.27 ft
Screen Length 10 ft
Depth to Water 23.98 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.475932 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 5.5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:11:16	602.01	18.21	5.73	205.59	2.97	24.10	3.06	113.84
Last 5	15:16:17	903.01	18.12	5.74	207.50	3.65	24.10	2.88	111.20
Last 5	15:21:20	1206.01	18.12	5.73	207.88	3.30	24.10	2.84	110.34
Last 5	15:26:21	1507.00	18.20	5.73	208.22	3.05	24.10	2.84	109.72
Last 5	15:31:23	1808.46	18.16	5.73	208.57	2.90	24.10	2.83	109.24
Variance 0			-0.00	-0.01	0.38			-0.03	-0.85
Variance 1			0.08	-0.00	0.33			-0.01	-0.62
Variance 2			-0.04	0.00	0.36			-0.01	-0.49

Notes

Collected at 15:35. Sunny 60s. Extra Rad here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 17:34:29

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 33.07"
Longitude -83° -42' -25.86"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 26.1 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.418902 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 24 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			+/- 1000	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000
Last 5	17:07:16	6909.91	17.94	6.34	471.52	9.50	26.50	0.75	94.68
Last 5	17:12:16	7209.91	18.00	6.34	471.75	6.10	26.50	0.64	94.36
Last 5	17:17:20	7513.91	17.90	6.34	471.68	4.70	26.50	0.68	94.38
Last 5	17:22:20	7813.91	17.77	6.34	472.00	4.50	26.50	0.64	94.24
Last 5	17:27:20	8113.91	17.75	6.34	472.40	3.90	26.90	0.78	94.23
Variance 0			-0.10	0.00	-0.07			0.04	0.02
Variance 1			-0.13	-0.00	0.32			-0.03	-0.14
Variance 2			-0.01	0.00	0.40			0.13	-0.01

Notes

Sampled at 17:30. Sunny, 55 degrees. FB-1 sampled here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 17:19:54

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.05 ft
Screen Length 10 ft
Depth to Water 21.70 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.39 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 8.5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	16:56:00	2105.99	18.35	5.78	89.06	7.07	21.70	5.43	110.84
Last 5	17:01:01	2406.99	18.28	5.76	89.72	6.54	21.70	5.42	110.95
Last 5	17:06:01	2706.98	18.35	5.79	89.08	5.95	21.70	5.43	109.86
Last 5	17:11:04	3009.98	18.31	5.80	89.03	4.93	21.70	5.43	108.51
Last 5	17:16:06	3311.96	18.26	5.82	88.99	4.52	21.70	5.44	107.17
Variance 0			0.06	0.03	-0.64			0.01	-1.09
Variance 1			-0.04	0.02	-0.05			0.00	-1.36
Variance 2			-0.05	0.01	-0.03			0.01	-1.33

Notes

Collected at 17:20. Sunny 50s

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-27 11:56:05

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 40 ft

Pump placement from TOC 23.2 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.27 ft
Screen Length 10 ft
Depth to Water 22.01 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 1.258746 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 42 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%	+/- 0		+/- 0.2	+/- 0
Last 5	11:32:17	9074.87	18.22	5.98	108.52	6.22	22.10	3.98	94.09
Last 5	11:37:20	9377.87	18.14	5.99	108.56	5.35	22.10	4.02	94.43
Last 5	11:42:23	9680.88	18.10	5.95	108.77	5.04	22.10	4.03	94.74
Last 5	11:47:27	9984.87	18.10	5.97	108.61	4.90	22.10	4.02	94.16
Last 5	11:52:31	10288.86	18.03	5.98	108.72	4.81	22.10	4.02	93.86
Variance 0			-0.04	-0.04	0.21			0.01	0.31
Variance 1			-0.00	0.02	-0.16			-0.01	-0.58
Variance 2			-0.06	0.01	0.11			0.00	-0.30

Notes

Collected at 11:55. Sunny 40s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 10:11:58

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 43 ft

Pump placement from TOC 40 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 30.22 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.323902 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 22 in
Total Volume Pumped 3.7 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%	+/- 0		+/- 0.2	+/- 0
Last 5	09:43:39	1804.00	17.45	6.51	262.24	14.00	31.70	1.51	16.91
Last 5	09:48:39	2103.99	17.66	6.48	256.37	10.00	31.80	1.47	23.51
Last 5	09:53:39	2403.99	17.29	6.45	249.13	7.40	31.90	1.56	31.83
Last 5	09:58:42	2706.98	17.05	6.42	243.43	4.92	32.00	1.78	40.34
Last 5	10:03:48	3012.97	17.67	6.40	237.81	4.81	32.10	1.95	46.81
Variance 0			-0.37	-0.03	-7.24			0.09	8.32
Variance 1			-0.24	-0.03	-5.71			0.22	8.51
Variance 2			0.62	-0.02	-5.62			0.18	6.47

Notes

Collected at 10:10. Sunny 50s

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 12:56:44

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 35 ft

Pump placement from TOC 29.5 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 21.05 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 1.150153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	12:32:47	601.01	18.91	5.32	350.85	1.40	21.10	0.55	172.47
Last 5	12:37:47	901.01	18.92	5.30	349.71	1.24	21.10	0.47	192.44
Last 5	12:42:50	1204.00	18.97	5.29	350.15	0.81	21.10	0.44	202.47
Last 5	12:47:52	1506.01	19.01	5.29	349.69	0.87	21.10	0.42	212.61
Last 5	12:52:52	1806.58	18.98	5.29	351.15	0.75	21.10	0.42	205.04
Variance 0			0.05	-0.01	0.44			-0.04	10.04
Variance 1			0.04	-0.00	-0.46			-0.02	10.13
Variance 2			-0.04	-0.01	1.46			-0.01	-7.56

Notes

Collected at 12:55. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 14:14:15

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 34 ft

Pump placement from TOC 28.9 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 22.05 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.128434 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 5.3 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%	+/- 0		+/- 0.2	+/- 0
Last 5	13:48:15	900.01	18.70	5.54	368.40	9.07	22.60	1.11	115.70
Last 5	13:53:17	1202.01	18.45	5.49	347.38	6.23	22.60	1.32	120.34
Last 5	13:58:17	1502.00	18.40	5.45	330.96	5.38	22.60	1.51	122.76
Last 5	14:03:21	1805.99	18.93	5.44	320.56	4.59	22.60	1.61	124.45
Last 5	14:08:23	2107.99	18.85	5.43	315.59	3.45	22.60	1.67	124.75
Variance 0			-0.05	-0.04	-16.42			0.19	2.41
Variance 1			0.53	-0.02	-10.40			0.10	1.69
Variance 2			-0.07	-0.01	-4.97			0.06	0.30

Notes

Collected at 14:15. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-27 15:31:54

Project Information:

Operator Name Brandon Reynolds
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 32.39"
Longitude -83° -42' -21.58"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.64 ft
Screen Length 10 ft
Depth to Water 28.60 ft

Pumping Information:

Final Pumping Rate 75 mL/min
Total System Volume 1.570932 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 40 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%	+/- 0		+/- 10%	+/- 100
Last 5	15:02:04	24950.61	16.95	6.00	596.58	17.40	28.70	0.49	82.04
Last 5	15:07:04	25250.61	17.01	6.00	597.93	16.20	28.70	0.55	81.92
Last 5	15:12:04	25550.60	16.96	5.99	595.95	15.80	28.70	0.45	81.87
Last 5	15:17:04	25850.60	17.05	5.99	595.74	15.50	28.70	0.63	81.87
Last 5	15:22:05	26151.59	16.68	6.01	594.06	15.90	28.70	0.45	82.32
Variance 0			-0.05	-0.01	-1.98			-0.10	-0.05
Variance 1			0.09	0.00	-0.20			0.18	0.00
Variance 2			-0.38	0.01	-1.69			-0.18	0.45

Notes

Collected at 15:30. Cloudy 50s

Grab Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136568-1

TestAmerica Sample Delivery Group: Pond 3

Client Project/Site: CCR Plant Arkwright


For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

5/2/2017 4:19:31 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Job ID: 400-136568-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-136568-1

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWC-16 (400-136568-3), ARGWA-13 (400-136568-5), ARGWC-17 (400-136568-7), ARGWC-8 (400-136568-10) and ARGWC-18 (400-136568-12). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350227 and analytical batch 351662 were outside control limits for Lithium and Selenium. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: Due to the high concentration of Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 350227 and analytical batch 351662 could not be properly evaluated for Calcium accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 6020: The reporting limit check (CRI) for analytical batch 351778 contained Lead above the recovery limit. All reported samples were ND for this analyte; therefore, re-analysis of samples was not performed.

Method(s) 6020: The continuing calibration blank (CCB) for analytical batch 351778 contained Lead above the reporting limit (RL). All reported samples associated with this CCB were ND for this analyte; therefore, re-analysis of samples was not performed.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: ARGWC-18 (400-136568-12). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-136568-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00067	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0029		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-12

Lab Sample ID: 400-136568-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.1		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00076	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.064		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.025	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0011	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0040	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-136568-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	150		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.00067	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.045	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	28		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0011	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-14

Lab Sample ID: 400-136568-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.31		0.20	0.082	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-14 (Continued)

Lab Sample ID: 400-136568-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	7.1		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00095	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.043	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	33		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	300		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-13

Lab Sample ID: 400-136568-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	340		10	7.0	mg/L	10		300.0	Total/NA
Arsenic	0.00063	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.081		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	78		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0036	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0079		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	610		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-5

Lab Sample ID: 400-136568-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00077	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-17

Lab Sample ID: 400-136568-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	77		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.00084	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-17 (Continued)

Lab Sample ID: 400-136568-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.026		0.0025	0.00040	mg/L	5		6020	Total
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-7

Lab Sample ID: 400-136568-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	47		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00078	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0036		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1-4-12-17

Lab Sample ID: 400-136568-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00079	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable

Client Sample ID: ARGWC-8

Lab Sample ID: 400-136568-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	69		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.00072	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.3		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	47		0.25	0.13	mg/L	5		6020	Total Recoverable
Molybdenum	0.035		0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	310		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1-4-12-17

Lab Sample ID: 400-136568-11

No Detections.

Client Sample ID: ARGWC-18

Lab Sample ID: 400-136568-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.088	J	0.20	0.082	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-18 (Continued)

Lab Sample ID: 400-136568-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	190		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	2.4		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium	45		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0015	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0039	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	430		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-9

Lab Sample ID: 400-136568-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.90	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0096		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	88		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-10

Lab Sample ID: 400-136568-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0048		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15

Lab Sample ID: 400-136568-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	4.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-136568-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.90	J	1.0	0.70	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
 SDG: Pond 3

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 400-136568-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136568-1	ARGWA-3	Water	04/11/17 13:15	04/13/17 09:01
400-136568-2	ARGWA-12	Water	04/11/17 15:05	04/13/17 09:01
400-136568-3	ARGWC-16	Water	04/11/17 16:35	04/13/17 09:01
400-136568-4	ARGWA-14	Water	04/11/17 10:10	04/13/17 09:01
400-136568-5	ARGWA-13	Water	04/11/17 12:40	04/13/17 09:01
400-136568-6	ARGWA-5	Water	04/11/17 15:00	04/13/17 09:01
400-136568-7	ARGWC-17	Water	04/11/17 16:45	04/13/17 09:01
400-136568-8	ARGWC-7	Water	04/12/17 10:25	04/14/17 08:44
400-136568-9	EB-1-4-12-17	Water	04/12/17 16:55	04/14/17 08:44
400-136568-10	ARGWC-8	Water	04/12/17 14:55	04/14/17 08:44
400-136568-11	FB-1-4-12-17	Water	04/12/17 14:10	04/14/17 08:44
400-136568-12	ARGWC-18	Water	04/12/17 16:50	04/14/17 08:44
400-136568-13	ARGWC-9	Water	04/12/17 15:00	04/14/17 08:44
400-136568-14	ARGWC-10	Water	04/12/17 13:45	04/14/17 08:44
400-136568-15	ARGWC-15	Water	04/12/17 10:55	04/14/17 08:44
400-136568-16	DUP-1	Water	04/12/17 00:00	04/14/17 08:44

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-136568-1

Date Collected: 04/11/17 13:15

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		1.0	0.89	mg/L			04/21/17 00:43	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 00:43	1
Sulfate	<0.70		1.0	0.70	mg/L			04/21/17 00:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 14:53	5
Arsenic	0.00067	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 14:53	5
Barium	0.016		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 14:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 14:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 14:53	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 14:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 14:53	5
Calcium	5.3		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 14:53	5
Chromium	0.0029		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 14:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 14:53	5
Lead	<0.00035	[^]	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 14:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 14:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 14:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 14:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 14:53	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		04/25/17 12:18	04/26/17 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-136568-2

Date Collected: 04/11/17 15:05

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.89	mg/L			04/21/17 01:06	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 01:06	1
Sulfate	9.1		1.0	0.70	mg/L			04/21/17 01:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 14:57	5
Arsenic	0.00076	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 14:57	5
Barium	0.064		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 14:57	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 14:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 14:57	5
Boron	0.025	J	0.050	0.021	mg/L		04/18/17 15:16	04/28/17 14:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 14:57	5
Calcium	12		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 14:57	5
Chromium	0.0011	J	0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 14:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 14:57	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 14:57	5
Lithium	0.0040	J	0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 14:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 14:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 14:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 14:57	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		04/25/17 12:18	04/26/17 10:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-136568-3

Date Collected: 04/11/17 16:35

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		1.0	0.89	mg/L			04/21/17 01:28	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 01:28	1
Sulfate	150		5.0	3.5	mg/L			04/21/17 19:33	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:02	5
Arsenic	0.00067	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:02	5
Barium	0.055		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:02	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:02	5
Boron	0.045	J	0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:02	5
Calcium	28		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:02	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:02	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:02	5
Selenium	0.0011	J	0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:02	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		04/25/17 12:18	04/26/17 11:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	260		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-136568-4

Date Collected: 04/11/17 10:10

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.89	mg/L			04/21/17 01:51	1
Fluoride	0.31		0.20	0.082	mg/L			04/21/17 01:51	1
Sulfate	7.1		1.0	0.70	mg/L			04/21/17 01:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:07	5
Arsenic	0.00095	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:07	5
Barium	0.038		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:07	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:07	5
Boron	0.043	J	0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:07	5
Calcium	33		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:07	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:07	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		04/25/17 12:18	04/26/17 11:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-136568-5

Date Collected: 04/11/17 12:40

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.89	mg/L			04/21/17 20:44	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 20:44	1
Sulfate	340		10	7.0	mg/L			04/23/17 00:35	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:11	5
Arsenic	0.00063	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:11	5
Barium	0.024		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:11	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:11	5
Boron	0.081		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:11	5
Calcium	78		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:11	5
Lead	<0.00035	[^]	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:11	5
Lithium	0.0036	J	0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:11	5
Selenium	0.0079		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:11	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		04/25/17 12:18	04/26/17 11:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	610		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-5

Date Collected: 04/11/17 15:00

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		1.0	0.89	mg/L			04/21/17 21:07	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 21:07	1
Sulfate	<0.70		1.0	0.70	mg/L			04/21/17 21:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:16	5
Arsenic	0.00077	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:16	5
Barium	0.024		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:16	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:16	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:16	5
Calcium	4.7		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:16	5
Lead	<0.00035	[^]	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:16	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		04/25/17 12:18	04/26/17 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-136568-7

Date Collected: 04/11/17 16:45

Matrix: Water

Date Received: 04/13/17 09:01

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.89	mg/L			04/21/17 21:30	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 21:30	1
Sulfate	77		5.0	3.5	mg/L			04/23/17 00:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:20	5
Arsenic	0.00084	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:20	5
Barium	0.043		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:20	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:20	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:20	5
Calcium	16		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:20	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:20	5
Cobalt	0.026		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:20	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:20	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:20	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		04/25/17 12:18	04/26/17 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			04/15/17 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-7

Lab Sample ID: 400-136568-8

Date Collected: 04/12/17 10:25

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		1.0	0.89	mg/L			04/21/17 22:38	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 22:38	1
Sulfate	47		1.0	0.70	mg/L			04/21/17 22:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:24	5
Arsenic	0.00078	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:24	5
Barium	0.034		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:24	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:24	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:24	5
Boron	0.12		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:24	5
Calcium	12		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:24	5
Chromium	0.0036		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:24	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:24	5
Lead	<0.00035	[^]	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:24	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:24	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:24	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:24	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:24	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		04/25/17 12:18	04/26/17 11:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			04/18/17 10:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: EB-1-4-12-17

Lab Sample ID: 400-136568-9

Date Collected: 04/12/17 16:55

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/21/17 23:01	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 23:01	1
Sulfate	<0.70		1.0	0.70	mg/L			04/21/17 23:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:29	5
Arsenic	0.00079	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:29	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:29	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:29	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:29	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:29	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:29	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		04/25/17 12:18	04/26/17 11:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/18/17 10:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-136568-10

Date Collected: 04/12/17 14:55

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		1.0	0.89	mg/L			04/21/17 23:24	1
Fluoride	0.13	J	0.20	0.082	mg/L			04/21/17 23:24	1
Sulfate	69		5.0	3.5	mg/L			04/23/17 01:21	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:34	5
Arsenic	0.00072	J	0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:34	5
Barium	0.041		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:34	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:34	5
Boron	1.3		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:34	5
Calcium	47		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:34	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:34	5
Molybdenum	0.035		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:34	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		04/25/17 12:18	04/26/17 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	310		5.0	3.4	mg/L			04/18/17 10:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: FB-1-4-12-17

Lab Sample ID: 400-136568-11

Date Collected: 04/12/17 14:10

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/21/17 23:47	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 23:47	1
Sulfate	<0.70		1.0	0.70	mg/L			04/21/17 23:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 15:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 15:56	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 15:56	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 15:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:56	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 15:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 15:56	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 15:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 15:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 15:56	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 15:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 15:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 15:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 15:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 15:56	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		04/25/17 12:18	04/26/17 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/18/17 10:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-136568-12

Date Collected: 04/12/17 16:50

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		1.0	0.89	mg/L			04/22/17 00:09	1
Fluoride	0.088	J	0.20	0.082	mg/L			04/22/17 00:09	1
Sulfate	190		10	7.0	mg/L			04/23/17 01:43	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 16:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 16:01	5
Barium	0.032		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 16:01	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 16:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 16:01	5
Boron	2.4		0.25	0.11	mg/L		04/18/17 15:16	04/28/17 16:33	25
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 16:01	5
Calcium	45		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 16:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 16:01	5
Cobalt	0.0015	J	0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 16:01	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 16:01	5
Lithium	0.0039	J	0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 16:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 16:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 16:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 16:01	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		04/25/17 12:19	04/26/17 11:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		5.0	3.4	mg/L			04/18/17 10:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-136568-13

Date Collected: 04/12/17 15:00

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.89	mg/L			04/22/17 00:32	1
Fluoride	<0.082		0.20	0.082	mg/L			04/22/17 00:32	1
Sulfate	0.90	J	1.0	0.70	mg/L			04/22/17 00:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 12:04	04/27/17 17:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 12:04	04/27/17 17:40	5
Barium	0.045		0.0025	0.00049	mg/L		04/18/17 12:04	04/27/17 17:40	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 12:04	04/27/17 17:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:40	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 12:04	04/27/17 17:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:40	5
Calcium	4.9		0.25	0.13	mg/L		04/18/17 12:04	04/27/17 17:40	5
Chromium	0.0096		0.0025	0.0011	mg/L		04/18/17 12:04	04/27/17 17:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 12:04	04/27/17 17:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/17 12:04	04/27/17 17:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 12:04	04/27/17 17:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 12:04	04/27/17 17:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 12:04	04/27/17 17:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 12:04	04/27/17 17:40	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		04/24/17 12:54	04/25/17 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	88		5.0	3.4	mg/L			04/18/17 09:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-136568-14

Date Collected: 04/12/17 13:45

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.89	mg/L			04/22/17 01:18	1
Fluoride	<0.082		0.20	0.082	mg/L			04/22/17 01:18	1
Sulfate	<0.70		1.0	0.70	mg/L			04/22/17 01:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 12:04	04/27/17 17:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 12:04	04/27/17 17:44	5
Barium	0.031		0.0025	0.00049	mg/L		04/18/17 12:04	04/27/17 17:44	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 12:04	04/27/17 17:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:44	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 12:04	04/27/17 17:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:44	5
Calcium	6.7		0.25	0.13	mg/L		04/18/17 12:04	04/27/17 17:44	5
Chromium	0.0048		0.0025	0.0011	mg/L		04/18/17 12:04	04/27/17 17:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 12:04	04/27/17 17:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/17 12:04	04/27/17 17:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 12:04	04/27/17 17:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 12:04	04/27/17 17:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 12:04	04/27/17 17:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 12:04	04/27/17 17:44	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		04/24/17 12:54	04/25/17 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			04/18/17 09:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-136568-15

Date Collected: 04/12/17 10:55

Matrix: Water

Date Received: 04/14/17 08:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			04/22/17 01:41	1
Fluoride	<0.082		0.20	0.082	mg/L			04/22/17 01:41	1
Sulfate	4.0		1.0	0.70	mg/L			04/22/17 01:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 12:04	04/27/17 17:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 12:04	04/27/17 17:49	5
Barium	0.030		0.0025	0.00049	mg/L		04/18/17 12:04	04/27/17 17:49	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 12:04	04/27/17 17:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:49	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 12:04	04/27/17 17:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:49	5
Calcium	17		0.25	0.13	mg/L		04/18/17 12:04	04/27/17 17:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 12:04	04/27/17 17:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 12:04	04/27/17 17:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/17 12:04	04/27/17 17:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 12:04	04/27/17 17:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 12:04	04/27/17 17:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 12:04	04/27/17 17:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 12:04	04/27/17 17:49	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		04/24/17 12:54	04/25/17 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			04/18/17 09:42	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: DUP-1

Date Collected: 04/12/17 00:00

Date Received: 04/14/17 08:44

Lab Sample ID: 400-136568-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.89	mg/L			04/22/17 02:04	1
Fluoride	<0.082		0.20	0.082	mg/L			04/22/17 02:04	1
Sulfate	0.90	J	1.0	0.70	mg/L			04/22/17 02:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 12:04	04/27/17 17:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 12:04	04/27/17 17:53	5
Barium	0.049		0.0025	0.00049	mg/L		04/18/17 12:04	04/27/17 17:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 12:04	04/27/17 17:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:53	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 12:04	04/27/17 17:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 17:53	5
Calcium	5.3		0.25	0.13	mg/L		04/18/17 12:04	04/27/17 17:53	5
Chromium	0.011		0.0025	0.0011	mg/L		04/18/17 12:04	04/27/17 17:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 12:04	04/27/17 17:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/17 12:04	04/27/17 17:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 12:04	04/27/17 17:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 12:04	04/27/17 17:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 12:04	04/27/17 17:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 12:04	04/27/17 17:53	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		04/24/17 12:54	04/25/17 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	46		5.0	3.4	mg/L			04/17/17 13:26	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

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.
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.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-3

Date Collected: 04/11/17 13:15

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350605	04/21/17 00:43	KH1	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 14:53	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 10:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Client Sample ID: ARGWA-12

Date Collected: 04/11/17 15:05

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350605	04/21/17 01:06	KH1	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 14:57	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 10:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Client Sample ID: ARGWC-16

Date Collected: 04/11/17 16:35

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350605	04/21/17 01:28	KH1	TAL PEN
Total/NA	Analysis	300.0		5	350804	04/21/17 19:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:02	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Client Sample ID: ARGWA-14

Date Collected: 04/11/17 10:10

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350605	04/21/17 01:51	KH1	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:07	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:12	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-136568-4

Date Collected: 04/11/17 10:10

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Client Sample ID: ARGWA-13

Lab Sample ID: 400-136568-5

Date Collected: 04/11/17 12:40

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 20:44	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	350909	04/23/17 00:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:11	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Client Sample ID: ARGWA-5

Lab Sample ID: 400-136568-6

Date Collected: 04/11/17 15:00

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 21:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:16	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Client Sample ID: ARGWC-17

Lab Sample ID: 400-136568-7

Date Collected: 04/11/17 16:45

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 21:30	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	350909	04/23/17 00:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:20	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349919	04/15/17 17:15	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-7

Lab Sample ID: 400-136568-8

Date Collected: 04/12/17 10:25

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 22:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:24	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350167	04/18/17 10:45	RRC	TAL PEN

Client Sample ID: EB-1-4-12-17

Lab Sample ID: 400-136568-9

Date Collected: 04/12/17 16:55

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 23:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:29	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350167	04/18/17 10:45	RRC	TAL PEN

Client Sample ID: ARGWC-8

Lab Sample ID: 400-136568-10

Date Collected: 04/12/17 14:55

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 23:24	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	350909	04/23/17 01:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:34	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350167	04/18/17 10:45	RRC	TAL PEN

Client Sample ID: FB-1-4-12-17

Lab Sample ID: 400-136568-11

Date Collected: 04/12/17 14:10

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/21/17 23:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 15:56	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:24	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: FB-1-4-12-17

Lab Sample ID: 400-136568-11

Date Collected: 04/12/17 14:10

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	350167	04/18/17 10:45	RRC	TAL PEN

Client Sample ID: ARGWC-18

Lab Sample ID: 400-136568-12

Date Collected: 04/12/17 16:50

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/22/17 00:09	TAJ	TAL PEN
Total/NA	Analysis	300.0		10	350909	04/23/17 01:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351778	04/28/17 16:01	DRE	TAL PEN
Total Recoverable	Prep	3005A			350289	04/18/17 15:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		25	351966	04/28/17 16:33	DRE	TAL PEN
Total/NA	Prep	7470A			351208	04/25/17 12:19	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351428	04/26/17 11:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350167	04/18/17 10:45	RRC	TAL PEN

Client Sample ID: ARGWC-9

Lab Sample ID: 400-136568-13

Date Collected: 04/12/17 15:00

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/22/17 00:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350227	04/18/17 12:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351662	04/27/17 17:40	DRE	TAL PEN
Total/NA	Prep	7470A			351012	04/24/17 12:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351281	04/25/17 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350175	04/18/17 09:42	RRC	TAL PEN

Client Sample ID: ARGWC-10

Lab Sample ID: 400-136568-14

Date Collected: 04/12/17 13:45

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/22/17 01:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350227	04/18/17 12:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351662	04/27/17 17:44	DRE	TAL PEN
Total/NA	Prep	7470A			351012	04/24/17 12:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351281	04/25/17 14:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350175	04/18/17 09:42	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-136568-15

Date Collected: 04/12/17 10:55

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/22/17 01:41	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350227	04/18/17 12:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351662	04/27/17 17:49	DRE	TAL PEN
Total/NA	Prep	7470A			351012	04/24/17 12:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351281	04/25/17 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	350175	04/18/17 09:42	RRC	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-136568-16

Date Collected: 04/12/17 00:00

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	350804	04/22/17 02:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			350227	04/18/17 12:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	351662	04/27/17 17:53	DRE	TAL PEN
Total/NA	Prep	7470A			351012	04/24/17 12:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	351281	04/25/17 14:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	349991	04/17/17 13:26	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

HPLC/IC

Analysis Batch: 350605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total/NA	Water	300.0	
400-136568-2	ARGWA-12	Total/NA	Water	300.0	
400-136568-3	ARGWC-16	Total/NA	Water	300.0	
400-136568-4	ARGWA-14	Total/NA	Water	300.0	
MB 400-350605/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350605/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350605/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136455-A-10 MS	Matrix Spike	Total/NA	Water	300.0	
400-136455-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 350804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-3	ARGWC-16	Total/NA	Water	300.0	
400-136568-5	ARGWA-13	Total/NA	Water	300.0	
400-136568-6	ARGWA-5	Total/NA	Water	300.0	
400-136568-7	ARGWC-17	Total/NA	Water	300.0	
400-136568-8	ARGWC-7	Total/NA	Water	300.0	
400-136568-9	EB-1-4-12-17	Total/NA	Water	300.0	
400-136568-10	ARGWC-8	Total/NA	Water	300.0	
400-136568-11	FB-1-4-12-17	Total/NA	Water	300.0	
400-136568-12	ARGWC-18	Total/NA	Water	300.0	
400-136568-13	ARGWC-9	Total/NA	Water	300.0	
400-136568-14	ARGWC-10	Total/NA	Water	300.0	
400-136568-15	ARGWC-15	Total/NA	Water	300.0	
400-136568-16	DUP-1	Total/NA	Water	300.0	
MB 400-350804/23	Method Blank	Total/NA	Water	300.0	
LCS 400-350804/24	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350804/25	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136568-3 MS	ARGWC-16	Total/NA	Water	300.0	
400-136568-3 MSD	ARGWC-16	Total/NA	Water	300.0	

Analysis Batch: 350909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-5	ARGWA-13	Total/NA	Water	300.0	
400-136568-7	ARGWC-17	Total/NA	Water	300.0	
400-136568-10	ARGWC-8	Total/NA	Water	300.0	
400-136568-12	ARGWC-18	Total/NA	Water	300.0	
MB 400-350909/4	Method Blank	Total/NA	Water	300.0	
LCS 400-350909/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-350909/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-136622-C-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-136622-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 350227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-13	ARGWC-9	Total Recoverable	Water	3005A	
400-136568-14	ARGWC-10	Total Recoverable	Water	3005A	
400-136568-15	ARGWC-15	Total Recoverable	Water	3005A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Metals (Continued)

Prep Batch: 350227 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-16	DUP-1	Total Recoverable	Water	3005A	
MB 400-350227/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-350227/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136545-C-15-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-136545-C-15-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 350289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total Recoverable	Water	3005A	
400-136568-2	ARGWA-12	Total Recoverable	Water	3005A	
400-136568-3	ARGWC-16	Total Recoverable	Water	3005A	
400-136568-4	ARGWA-14	Total Recoverable	Water	3005A	
400-136568-5	ARGWA-13	Total Recoverable	Water	3005A	
400-136568-6	ARGWA-5	Total Recoverable	Water	3005A	
400-136568-7	ARGWC-17	Total Recoverable	Water	3005A	
400-136568-8	ARGWC-7	Total Recoverable	Water	3005A	
400-136568-9	EB-1-4-12-17	Total Recoverable	Water	3005A	
400-136568-10	ARGWC-8	Total Recoverable	Water	3005A	
400-136568-11	FB-1-4-12-17	Total Recoverable	Water	3005A	
400-136568-12	ARGWC-18	Total Recoverable	Water	3005A	
MB 400-350289/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-350289/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136546-B-5-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-136546-B-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 351012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-13	ARGWC-9	Total/NA	Water	7470A	
400-136568-14	ARGWC-10	Total/NA	Water	7470A	
400-136568-15	ARGWC-15	Total/NA	Water	7470A	
400-136568-16	DUP-1	Total/NA	Water	7470A	
MB 400-351012/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-351012/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136519-E-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-136519-E-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 351208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total/NA	Water	7470A	
400-136568-2	ARGWA-12	Total/NA	Water	7470A	
400-136568-3	ARGWC-16	Total/NA	Water	7470A	
400-136568-4	ARGWA-14	Total/NA	Water	7470A	
400-136568-5	ARGWA-13	Total/NA	Water	7470A	
400-136568-6	ARGWA-5	Total/NA	Water	7470A	
400-136568-7	ARGWC-17	Total/NA	Water	7470A	
400-136568-8	ARGWC-7	Total/NA	Water	7470A	
400-136568-9	EB-1-4-12-17	Total/NA	Water	7470A	
400-136568-10	ARGWC-8	Total/NA	Water	7470A	
400-136568-11	FB-1-4-12-17	Total/NA	Water	7470A	
400-136568-12	ARGWC-18	Total/NA	Water	7470A	
MB 400-351208/14-A	Method Blank	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Metals (Continued)

Prep Batch: 351208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-351208/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136568-1 MS	ARGWA-3	Total/NA	Water	7470A	
400-136568-1 MSD	ARGWA-3	Total/NA	Water	7470A	

Analysis Batch: 351281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-13	ARGWC-9	Total/NA	Water	7470A	351012
400-136568-14	ARGWC-10	Total/NA	Water	7470A	351012
400-136568-15	ARGWC-15	Total/NA	Water	7470A	351012
400-136568-16	DUP-1	Total/NA	Water	7470A	351012
MB 400-351012/14-A	Method Blank	Total/NA	Water	7470A	351012
LCS 400-351012/15-A	Lab Control Sample	Total/NA	Water	7470A	351012
400-136519-E-1-C MS	Matrix Spike	Total/NA	Water	7470A	351012
400-136519-E-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	351012

Analysis Batch: 351428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total/NA	Water	7470A	351208
400-136568-2	ARGWA-12	Total/NA	Water	7470A	351208
400-136568-3	ARGWC-16	Total/NA	Water	7470A	351208
400-136568-4	ARGWA-14	Total/NA	Water	7470A	351208
400-136568-5	ARGWA-13	Total/NA	Water	7470A	351208
400-136568-6	ARGWA-5	Total/NA	Water	7470A	351208
400-136568-7	ARGWC-17	Total/NA	Water	7470A	351208
400-136568-8	ARGWC-7	Total/NA	Water	7470A	351208
400-136568-9	EB-1-4-12-17	Total/NA	Water	7470A	351208
400-136568-10	ARGWC-8	Total/NA	Water	7470A	351208
400-136568-11	FB-1-4-12-17	Total/NA	Water	7470A	351208
400-136568-12	ARGWC-18	Total/NA	Water	7470A	351208
MB 400-351208/14-A	Method Blank	Total/NA	Water	7470A	351208
LCS 400-351208/15-A	Lab Control Sample	Total/NA	Water	7470A	351208
400-136568-1 MS	ARGWA-3	Total/NA	Water	7470A	351208
400-136568-1 MSD	ARGWA-3	Total/NA	Water	7470A	351208

Analysis Batch: 351662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-13	ARGWC-9	Total Recoverable	Water	6020	350227
400-136568-14	ARGWC-10	Total Recoverable	Water	6020	350227
400-136568-15	ARGWC-15	Total Recoverable	Water	6020	350227
400-136568-16	DUP-1	Total Recoverable	Water	6020	350227
MB 400-350227/1-A ^5	Method Blank	Total Recoverable	Water	6020	350227
LCS 400-350227/2-A	Lab Control Sample	Total Recoverable	Water	6020	350227
400-136545-C-15-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	350227
400-136545-C-15-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	350227

Analysis Batch: 351778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total Recoverable	Water	6020	350289
400-136568-2	ARGWA-12	Total Recoverable	Water	6020	350289
400-136568-3	ARGWC-16	Total Recoverable	Water	6020	350289
400-136568-4	ARGWA-14	Total Recoverable	Water	6020	350289

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Metals (Continued)

Analysis Batch: 351778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-5	ARGWA-13	Total Recoverable	Water	6020	350289
400-136568-6	ARGWA-5	Total Recoverable	Water	6020	350289
400-136568-7	ARGWC-17	Total Recoverable	Water	6020	350289
400-136568-8	ARGWC-7	Total Recoverable	Water	6020	350289
400-136568-9	EB-1-4-12-17	Total Recoverable	Water	6020	350289
400-136568-10	ARGWC-8	Total Recoverable	Water	6020	350289
400-136568-11	FB-1-4-12-17	Total Recoverable	Water	6020	350289
400-136568-12	ARGWC-18	Total Recoverable	Water	6020	350289
MB 400-350289/1-A ^5	Method Blank	Total Recoverable	Water	6020	350289
LCS 400-350289/2-A	Lab Control Sample	Total Recoverable	Water	6020	350289
400-136546-B-5-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	350289
400-136546-B-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	350289

Analysis Batch: 351966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-12	ARGWC-18	Total Recoverable	Water	6020	350289

General Chemistry

Analysis Batch: 349919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total/NA	Water	SM 2540C	
400-136568-2	ARGWA-12	Total/NA	Water	SM 2540C	
400-136568-3	ARGWC-16	Total/NA	Water	SM 2540C	
400-136568-4	ARGWA-14	Total/NA	Water	SM 2540C	
400-136568-5	ARGWA-13	Total/NA	Water	SM 2540C	
400-136568-6	ARGWA-5	Total/NA	Water	SM 2540C	
400-136568-7	ARGWC-17	Total/NA	Water	SM 2540C	
MB 400-349919/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349919/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136568-6 DU	ARGWA-5	Total/NA	Water	SM 2540C	

Analysis Batch: 349991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-16	DUP-1	Total/NA	Water	SM 2540C	
MB 400-349991/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-349991/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136591-A-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 350167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-8	ARGWC-7	Total/NA	Water	SM 2540C	
400-136568-9	EB-1-4-12-17	Total/NA	Water	SM 2540C	
400-136568-10	ARGWC-8	Total/NA	Water	SM 2540C	
400-136568-11	FB-1-4-12-17	Total/NA	Water	SM 2540C	
400-136568-12	ARGWC-18	Total/NA	Water	SM 2540C	
MB 400-350167/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-350167/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136568-12 DU	ARGWC-18	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

General Chemistry (Continued)

Analysis Batch: 350175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-13	ARGWC-9	Total/NA	Water	SM 2540C	
400-136568-14	ARGWC-10	Total/NA	Water	SM 2540C	
400-136568-15	ARGWC-15	Total/NA	Water	SM 2540C	
MB 400-350175/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-350175/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-136568-15 DU	ARGWC-15	Total/NA	Water	SM 2540C	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-350605/4
Matrix: Water
Analysis Batch: 350605

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/20/17 12:15	1
Fluoride	<0.082		0.20	0.082	mg/L			04/20/17 12:15	1
Sulfate	<0.70		1.0	0.70	mg/L			04/20/17 12:15	1

Lab Sample ID: LCS 400-350605/5
Matrix: Water
Analysis Batch: 350605

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.87		mg/L		99	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	9.34		mg/L		93	90 - 110

Lab Sample ID: LCSD 400-350605/6
Matrix: Water
Analysis Batch: 350605

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.88		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	9.34		mg/L		93	90 - 110	0	15

Lab Sample ID: 400-136455-A-10 MS
Matrix: Water
Analysis Batch: 350605

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.5		50.0	51.4		mg/L		92	80 - 120
Fluoride	<0.41		50.0	49.6		mg/L		99	80 - 120
Sulfate	70		50.0	117		mg/L		94	80 - 120

Lab Sample ID: 400-136455-A-10 MSD
Matrix: Water
Analysis Batch: 350605

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.5		50.0	51.7		mg/L		92	80 - 120	1	20
Fluoride	<0.41		50.0	49.9		mg/L		100	80 - 120	1	20
Sulfate	70		50.0	118		mg/L		96	80 - 120	1	20

Lab Sample ID: MB 400-350804/23
Matrix: Water
Analysis Batch: 350804

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/21/17 17:53	1
Fluoride	<0.082		0.20	0.082	mg/L			04/21/17 17:53	1
Sulfate	<0.70		1.0	0.70	mg/L			04/21/17 17:53	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-350804/24
Matrix: Water
Analysis Batch: 350804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.98		mg/L		100	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	9.63		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-350804/25
Matrix: Water
Analysis Batch: 350804

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.97		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	9.59		mg/L		96	90 - 110	0	15

Lab Sample ID: 400-136568-3 MS
Matrix: Water
Analysis Batch: 350804

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.8	J	50.0	51.9		mg/L		94	80 - 120
Fluoride	<0.41		50.0	51.7		mg/L		103	80 - 120
Sulfate	150		50.0	199		mg/L		98	80 - 120

Lab Sample ID: 400-136568-3 MSD
Matrix: Water
Analysis Batch: 350804

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.8	J	50.0	51.9		mg/L		94	80 - 120	0	20
Fluoride	<0.41		50.0	51.5		mg/L		103	80 - 120	0	20
Sulfate	150		50.0	199		mg/L		97	80 - 120	0	20

Lab Sample ID: MB 400-350909/4
Matrix: Water
Analysis Batch: 350909

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/22/17 22:18	1
Fluoride	<0.082		0.20	0.082	mg/L			04/22/17 22:18	1
Sulfate	<0.70		1.0	0.70	mg/L			04/22/17 22:18	1

Lab Sample ID: LCS 400-350909/5
Matrix: Water
Analysis Batch: 350909

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.97		mg/L		100	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	9.80		mg/L		98	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-350909/6
Matrix: Water
Analysis Batch: 350909

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.93		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	9.79		mg/L		98	90 - 110	0	15

Lab Sample ID: 400-136622-C-1 MS
Matrix: Water
Analysis Batch: 350909

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	190	E	10.0	199	E 4	mg/L		131	80 - 120		
Fluoride	0.25		10.0	10.7		mg/L		104	80 - 120		
Sulfate	36		10.0	45.7		mg/L		101	80 - 120		

Lab Sample ID: 400-136622-C-1 MSD
Matrix: Water
Analysis Batch: 350909

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	190	E	10.0	200	E 4	mg/L		137	80 - 120	0	20
Fluoride	0.25		10.0	10.7		mg/L		105	80 - 120	0	20
Sulfate	36		10.0	46.0		mg/L		103	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-350227/1-A ^5
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 12:04	04/27/17 12:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 12:04	04/27/17 12:08	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/17 12:04	04/27/17 12:08	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 12:04	04/27/17 12:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 12:08	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 12:04	04/27/17 12:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 12:04	04/27/17 12:08	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/17 12:04	04/27/17 12:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 12:04	04/27/17 12:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 12:04	04/27/17 12:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/17 12:04	04/27/17 12:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 12:04	04/27/17 12:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 12:04	04/27/17 12:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 12:04	04/27/17 12:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 12:04	04/27/17 12:08	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

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

Lab Sample ID: LCS 400-350227/2-A
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0536		mg/L		107	80 - 120
Arsenic	0.0500	0.0501		mg/L		100	80 - 120
Barium	0.0500	0.0498		mg/L		100	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Beryllium	0.0500	0.0514		mg/L		103	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Cadmium	0.0500	0.0505		mg/L		101	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0482		mg/L		96	80 - 120
Cobalt	0.0500	0.0535		mg/L		107	80 - 120
Lead	0.0500	0.0500		mg/L		100	80 - 120
Lithium	0.0500	0.0535		mg/L		107	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Selenium	0.0500	0.0489		mg/L		98	80 - 120
Thallium	0.0100	0.00997		mg/L		100	80 - 120

Lab Sample ID: 400-136545-C-15-B MS ^5
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 350227

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0563		mg/L		113	75 - 125
Arsenic	0.0011	J	0.0500	0.0529		mg/L		104	75 - 125
Barium	0.039		0.0500	0.0903		mg/L		103	75 - 125
Silver	<0.00011		0.0500	0.0486		mg/L		97	75 - 125
Beryllium	<0.00034		0.0500	0.0505		mg/L		101	75 - 125
Boron	0.33		0.100	0.430		mg/L		104	75 - 125
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125
Chromium	0.0022	J	0.0500	0.0547		mg/L		105	75 - 125
Cobalt	0.0016	J	0.0500	0.0513		mg/L		99	75 - 125
Lead	<0.00035		0.0500	0.0520		mg/L		104	75 - 125
Lithium	0.25		0.0500	0.296	4	mg/L		98	75 - 125
Molybdenum	0.0026	J	0.100	0.104		mg/L		102	75 - 125
Selenium	0.0021	F1	0.0500	0.0130	F1	mg/L		22	75 - 125
Thallium	0.00010	J	0.0100	0.0103		mg/L		102	75 - 125

Lab Sample ID: 400-136545-C-15-C MSD ^5
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 350227

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0546		mg/L		109	75 - 125	3	20
Arsenic	0.0011	J	0.0500	0.0530		mg/L		104	75 - 125	0	20
Barium	0.039		0.0500	0.0891		mg/L		101	75 - 125	1	20
Silver	<0.00011		0.0500	0.0485		mg/L		97	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0501		mg/L		100	75 - 125	1	20
Boron	0.33		0.100	0.428		mg/L		101	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0505		mg/L		101	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

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

Lab Sample ID: 400-136545-C-15-C MSD ^5
Matrix: Water
Analysis Batch: 351662

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 350227

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chromium	0.0022	J	0.0500	0.0550		mg/L		106	75 - 125	1	20
Cobalt	0.0016	J	0.0500	0.0513		mg/L		99	75 - 125	0	20
Lead	<0.00035		0.0500	0.0521		mg/L		104	75 - 125	0	20
Lithium	0.25		0.0500	0.302	4	mg/L		111	75 - 125	2	20
Molybdenum	0.0026	J	0.100	0.103		mg/L		100	75 - 125	2	20
Selenium	0.0021	F1	0.0500	0.0138	F1	mg/L		23	75 - 125	6	20
Thallium	0.00010	J	0.0100	0.0104		mg/L		103	75 - 125	1	20

Lab Sample ID: MB 400-350289/1-A ^5
Matrix: Water
Analysis Batch: 351778

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350289

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/17 15:16	04/28/17 13:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/17 15:16	04/28/17 13:14	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/17 15:16	04/28/17 13:14	5
Silver	<0.00011		0.00025	0.00011	mg/L		04/18/17 15:16	04/28/17 13:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 13:14	5
Boron	<0.021		0.050	0.021	mg/L		04/18/17 15:16	04/28/17 13:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/17 15:16	04/28/17 13:14	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/17 15:16	04/28/17 13:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/17 15:16	04/28/17 13:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/17 15:16	04/28/17 13:14	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		04/18/17 15:16	04/28/17 13:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/18/17 15:16	04/28/17 13:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/17 15:16	04/28/17 13:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/17 15:16	04/28/17 13:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/17 15:16	04/28/17 13:14	5

Lab Sample ID: LCS 400-350289/2-A
Matrix: Water
Analysis Batch: 351778

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350289

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Added	Result				Qualifier
Antimony	0.0500	0.0511		mg/L		102	80 - 120
Arsenic	0.0500	0.0491		mg/L		98	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Silver	0.0500	0.0484		mg/L		97	80 - 120
Beryllium	0.0500	0.0494		mg/L		99	80 - 120
Boron	0.100	0.100		mg/L		100	80 - 120
Cadmium	0.0500	0.0485		mg/L		97	80 - 120
Calcium	5.00	4.60		mg/L		92	80 - 120
Chromium	0.0500	0.0482		mg/L		96	80 - 120
Cobalt	0.0500	0.0501		mg/L		100	80 - 120
Lead	0.0500	0.0488	^	mg/L		98	80 - 120
Lithium	0.0500	0.0508		mg/L		102	80 - 120
Molybdenum	0.100	0.0975		mg/L		97	80 - 120
Selenium	0.0500	0.0478		mg/L		96	80 - 120
Thallium	0.0100	0.00952		mg/L		95	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Lab Sample ID: 400-136546-B-5-B MS ^5
Matrix: Water
Analysis Batch: 351778

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 350289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125
Arsenic	<0.00046		0.0500	0.0501		mg/L		100	75 - 125
Barium	<0.00049		0.0500	0.0486		mg/L		97	75 - 125
Silver	<0.00011		0.0500	0.0490		mg/L		98	75 - 125
Beryllium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125
Boron	<0.021		0.100	0.0966		mg/L		97	75 - 125
Cadmium	<0.00034		0.0500	0.0481		mg/L		96	75 - 125
Calcium	<0.13		5.00	4.80		mg/L		96	75 - 125
Chromium	<0.0011		0.0500	0.0495		mg/L		99	75 - 125
Cobalt	<0.00040		0.0500	0.0508		mg/L		102	75 - 125
Lead	<0.00035	^	0.0500	0.0472	^	mg/L		94	75 - 125
Lithium	<0.0032		0.0500	0.0433		mg/L		87	75 - 125
Molybdenum	0.0035	J	0.100	0.101		mg/L		98	75 - 125
Selenium	0.0018		0.0500	0.0505		mg/L		97	75 - 125
Thallium	<0.000085		0.0100	0.00938		mg/L		94	75 - 125

Lab Sample ID: 400-136546-B-5-C MSD ^5
Matrix: Water
Analysis Batch: 351778

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 350289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0528		mg/L		106	75 - 125	0	20
Arsenic	<0.00046		0.0500	0.0500		mg/L		100	75 - 125	0	20
Barium	<0.00049		0.0500	0.0509		mg/L		102	75 - 125	5	20
Silver	<0.00011		0.0500	0.0501		mg/L		100	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125	0	20
Boron	<0.021		0.100	0.0969		mg/L		97	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0487		mg/L		97	75 - 125	1	20
Calcium	<0.13		5.00	4.81		mg/L		96	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0500		mg/L		100	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0504		mg/L		101	75 - 125	1	20
Lead	<0.00035	^	0.0500	0.0483	^	mg/L		97	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0429		mg/L		86	75 - 125	1	20
Molybdenum	0.0035	J	0.100	0.101		mg/L		98	75 - 125	0	20
Selenium	0.0018		0.0500	0.0495		mg/L		95	75 - 125	2	20
Thallium	<0.000085		0.0100	0.00957		mg/L		96	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-351012/14-A
Matrix: Water
Analysis Batch: 351281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/24/17 11:57	04/25/17 13:13	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

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

Lab Sample ID: LCS 400-351012/15-A
Matrix: Water
Analysis Batch: 351281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000935		mg/L		93	80 - 120

Lab Sample ID: 400-136519-E-1-C MS
Matrix: Water
Analysis Batch: 351281

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 351012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00188		mg/L		93	80 - 120

Lab Sample ID: 400-136519-E-1-D MSD
Matrix: Water
Analysis Batch: 351281

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 351012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00190		mg/L		94	80 - 120	1	20

Lab Sample ID: MB 400-351208/14-A
Matrix: Water
Analysis Batch: 351428

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/25/17 12:16	04/26/17 10:42	1

Lab Sample ID: LCS 400-351208/15-A
Matrix: Water
Analysis Batch: 351428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000900		mg/L		89	80 - 120

Lab Sample ID: 400-136568-1 MS
Matrix: Water
Analysis Batch: 351428

Client Sample ID: ARGWA-3
Prep Type: Total/NA
Prep Batch: 351208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00193		mg/L		96	80 - 120

Lab Sample ID: 400-136568-1 MSD
Matrix: Water
Analysis Batch: 351428

Client Sample ID: ARGWA-3
Prep Type: Total/NA
Prep Batch: 351208

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00186		mg/L		92	80 - 120	4	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

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

Lab Sample ID: MB 400-349919/1
Matrix: Water
Analysis Batch: 349919

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	<3.4		5.0	3.4	mg/L			04/15/17 17:15	1

Lab Sample ID: LCS 400-349919/2
Matrix: Water
Analysis Batch: 349919

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	293	246		mg/L		84	78 - 122

Lab Sample ID: 400-136568-6 DU
Matrix: Water
Analysis Batch: 349919

Client Sample ID: ARGWA-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	76		76.0		mg/L		3	5

Lab Sample ID: MB 400-349991/1
Matrix: Water
Analysis Batch: 349991

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	<3.4		5.0	3.4	mg/L			04/17/17 13:26	1

Lab Sample ID: LCS 400-349991/2
Matrix: Water
Analysis Batch: 349991

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	293	246		mg/L		84	78 - 122

Lab Sample ID: 400-136591-A-6 DU
Matrix: Water
Analysis Batch: 349991

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	370		370		mg/L		0	5

Lab Sample ID: MB 400-350167/1
Matrix: Water
Analysis Batch: 350167

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	<3.4		5.0	3.4	mg/L			04/18/17 10:45	1

Lab Sample ID: LCS 400-350167/2
Matrix: Water
Analysis Batch: 350167

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	293	272		mg/L		93	78 - 122

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
 SDG: Pond 3

Lab Sample ID: 400-136568-12 DU
Matrix: Water
Analysis Batch: 350167

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	430		432		mg/L		0.5	5

Lab Sample ID: MB 400-350175/1
Matrix: Water
Analysis Batch: 350175

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	<3.4		5.0	3.4	mg/L			04/18/17 09:42	1

Lab Sample ID: LCS 400-350175/2
Matrix: Water
Analysis Batch: 350175

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	293	300		mg/L		102	78 - 122

Lab Sample ID: 400-136568-15 DU
Matrix: Water
Analysis Batch: 350175

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	140		138		mg/L		1	5

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

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Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright & State P+O Site: POND 3		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): TA-ATL P.C.F.U.P COC No: 400-64280-24993.2 Page: 20 of 20 Job #: 400-136568							
Due Date Requested: TAT Requested (days): PO #: SCS10347666 WO #: Project #: 40007041 SSOV#:	Sample Date 4/11/17 4/11/17 4/11/17 4/11/17 4/11/17 4/11/17	Sample Time 1315 1505 1635 1010 1240 1500 1645	Sample Type (C=Comp, G=grab) G G G G G G G	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air) Water Water Water Water Water Water Water	Field Filtered Sample (Yes or No) N N N N N N N	9316_Ra226, 9320_Ra228 6020, 7470A 2640C, 300_ORGM_28D Metals: (State: As, Hg, Ba, Cd, Pb, Se)	Analysis Requested Total Number of Containers 3 3 4 3 3 3 3	Special Instructions/Note: extra Rad here	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		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:	
Relinquished by: [Signature] Date: 4-12-17 0815 Relinquished by: [Signature] Date: 4/12/17 16:08 Relinquished by: [Signature] Date:		Received by: [Signature] Date: 4/12/17 0815 Received by: [Signature] Date: 4-13-17 0901 Received by: [Signature] Date:		Company: ACE Company: TIA Company: TIA		Method of Shipment:		Special Instructions/Note:	
Custody Seal No.: A Yes A No		Custody Seal No.:		Other Remarks: 2.9 / 2.02 5020		Temperature(s) °C and Other Remarks:		QC Requirements:	

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Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: [blank] Email: JAbraham@southernco.com Project Name: CCR-Plant Arkwright + State D + O Site: POND 3		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): TA-ATL Drop off		COC No: 400-64280-24993.3 Page: [blank] Job #: 400-136568	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007041 SSOW#:		Analysis Requested 9315_Ra226, 9320_Ra228 6020, 7470A 2540C, 300_ORGFM, 28D Metals (States: As, Ag, Ba, Cd, Pb, Se)			
Sample Identification ARGWC-7 EB-1-4-12-17 ARGWC-8 FB-1-4-12-17 ARGWC-1B ARGWC-9 ARGWC-10 ARGWC-15 DUP-1		Sample Date 4/12/17 4/12/17 4/12/17 4/12/17 4/12/17 4/12/17 4/12/17		Sample Time 1025 1655 1455 1410 1650 1500 1345 1055 -	
Sample Type (C=Comp, G=grab) G G G G G G G G W		Matrix (Water, Solid, Other) Water Water W W W W W W W		Field Filtered Sample (Yes or No) N N N N N N N N N	
Preservation Code: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Total Number of Containers 3 3 3 3 3 3 3 3 3		Special Instructions/Note: [blank]	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements: Empty Kit Relinquished by: [blank] Date: [blank] Relinquished by: Bym Walker Date/Time: 4-13-17 10:27 Company: [blank] Relinquished by: [blank] Date/Time: 4/12/17 1600 Company: [blank] Relinquished by: [blank] Date/Time: [blank] Company: [blank]					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: 3.8°C [blank]					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136568-1

SDG Number: Pond 3

Login Number: 136568

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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.	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	2.8°C, 2.0°C, 3.8°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-1
SDG: Pond 3

Laboratory: 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136568-2

TestAmerica Sample Delivery Group: Pond 3

Client Project/Site: CCR Plant Arkwright

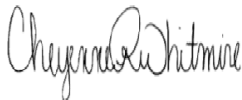
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

5/15/2017 4:46:42 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Job ID: 400-136568-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-136568-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-304335. The following samples were reduced due to limited volume: ARGWA-3 (400-136568-1), ARGWA-12 (400-136568-2), ARGWC-16 (400-136568-3), ARGWC-16 (400-136568-3[DU]), ARGWA-14 (400-136568-4), ARGWA-13 (400-136568-5), ARGWA-5 (400-136568-6), ARGWC-17 (400-136568-7), ARGWC-7 (400-136568-8), EB-1-4-12-17 (400-136568-9), ARGWC-8 (400-136568-10), FB-1-4-12-17 (400-136568-11), ARGWC-18 (400-136568-12), ARGWC-9 (400-136568-13), ARGWC-10 (400-136568-14), ARGWC-15 (400-136568-15) and DUP-1 (400-136568-16).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-304150. The following samples were reduced due to limited volume: ARGWA-3 (400-136568-1), ARGWA-12 (400-136568-2), ARGWC-16 (400-136568-3), ARGWC-16 (400-136568-3[DU]), ARGWA-14 (400-136568-4), ARGWA-13 (400-136568-5), ARGWA-5 (400-136568-6), ARGWC-17 (400-136568-7), ARGWC-7 (400-136568-8), EB-1-4-12-17 (400-136568-9), ARGWC-8 (400-136568-10), FB-1-4-12-17 (400-136568-11), ARGWC-18 (400-136568-12), ARGWC-9 (400-136568-13), ARGWC-10 (400-136568-14), ARGWC-15 (400-136568-15) and DUP-1 (400-136568-16).

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

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

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136568-1	ARGWA-3	Water	04/11/17 13:15	04/13/17 09:01
400-136568-2	ARGWA-12	Water	04/11/17 15:05	04/13/17 09:01
400-136568-3	ARGWC-16	Water	04/11/17 16:35	04/13/17 09:01
400-136568-4	ARGWA-14	Water	04/11/17 10:10	04/13/17 09:01
400-136568-5	ARGWA-13	Water	04/11/17 12:40	04/13/17 09:01
400-136568-6	ARGWA-5	Water	04/11/17 15:00	04/13/17 09:01
400-136568-7	ARGWC-17	Water	04/11/17 16:45	04/13/17 09:01
400-136568-8	ARGWC-7	Water	04/12/17 10:25	04/14/17 08:44
400-136568-9	EB-1-4-12-17	Water	04/12/17 16:55	04/14/17 08:44
400-136568-10	ARGWC-8	Water	04/12/17 14:55	04/14/17 08:44
400-136568-11	FB-1-4-12-17	Water	04/12/17 14:10	04/14/17 08:44
400-136568-12	ARGWC-18	Water	04/12/17 16:50	04/14/17 08:44
400-136568-13	ARGWC-9	Water	04/12/17 15:00	04/14/17 08:44
400-136568-14	ARGWC-10	Water	04/12/17 13:45	04/14/17 08:44
400-136568-15	ARGWC-15	Water	04/12/17 10:55	04/14/17 08:44
400-136568-16	DUP-1	Water	04/12/17 00:00	04/14/17 08:44

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
 SDG: Pond 3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-136568-1

Date Collected: 04/11/17 13:15

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0449	U	0.0643	0.0644	1.00	0.109	pCi/L	04/18/17 14:51	05/11/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					04/18/17 14:51	05/11/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.314	U	0.299	0.301	1.00	0.484	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	89.3		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.358	U	0.306	0.307	5.00	0.484	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-136568-2

Date Collected: 04/11/17 15:05

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0848	U	0.0750	0.0754	1.00	0.107	pCi/L	04/18/17 14:51	05/11/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/18/17 14:51	05/11/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.293	U	0.308	0.309	1.00	0.503	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	86.0		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.378	U	0.317	0.318	5.00	0.503	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-136568-3

Date Collected: 04/11/17 16:35

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.127	U	0.0952	0.0959	1.00	0.133	pCi/L	04/18/17 14:51	05/11/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					04/18/17 14:51	05/11/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.345	0.346	1.00	0.582	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	84.9		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.334	U	0.358	0.359	5.00	0.582	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-136568-4

Date Collected: 04/11/17 10:10

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145	U	0.112	0.113	1.00	0.161	pCi/L	04/18/17 14:51	05/11/17 06:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/18/17 14:51	05/11/17 06:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.459	U	0.357	0.359	1.00	0.565	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	82.6		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.604		0.374	0.377	5.00	0.565	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-136568-5

Date Collected: 04/11/17 12:40

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.140	U	0.118	0.118	1.00	0.176	pCi/L	04/18/17 14:51	05/11/17 06:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					04/18/17 14:51	05/11/17 06:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.570		0.351	0.355	1.00	0.538	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	86.4		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.710		0.371	0.374	5.00	0.538	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWA-5

Date Collected: 04/11/17 15:00

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-6

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	0.137	U	0.101	0.102	1.00	0.140	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.195	U	0.254	0.255	1.00	0.489	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	90.1		40 - 110					04/19/17 13:20	05/04/17 14:30	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	-0.0587	U	0.274	0.275	5.00	0.489	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-136568-7

Date Collected: 04/11/17 16:45

Matrix: Water

Date Received: 04/13/17 09:01

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.233		0.126	0.128	1.00	0.149	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.314	U	0.301	0.303	1.00	0.487	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	83.7		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.547		0.327	0.328	5.00	0.487	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-7

Lab Sample ID: 400-136568-8

Date Collected: 04/12/17 10:25

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.0947	0.0951	1.00	0.141	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.213	U	0.258	0.259	1.00	0.427	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	88.2		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.316	U	0.275	0.276	5.00	0.427	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: EB-1-4-12-17

Lab Sample ID: 400-136568-9

Date Collected: 04/12/17 16:55

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0699	U	0.0896	0.0898	1.00	0.149	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.159	U	0.279	0.279	1.00	0.473	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	85.6		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.229	U	0.293	0.293	5.00	0.473	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-136568-10

Date Collected: 04/12/17 14:55

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.200		0.120	0.121	1.00	0.153	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.169	U	0.285	0.285	1.00	0.482	pCi/L	04/19/17 13:20	05/04/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					04/19/17 13:20	05/04/17 14:30	1
Y Carrier	85.2		40 - 110					04/19/17 13:20	05/04/17 14:30	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	0.370	U	0.309	0.310	5.00	0.482	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: FB-1-4-12-17

Lab Sample ID: 400-136568-11

Date Collected: 04/12/17 14:10

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00327	U	0.0822	0.0822	1.00	0.166	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.172	U	0.216	0.217	1.00	0.427	pCi/L	04/19/17 13:20	05/04/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					04/19/17 13:20	05/04/17 14:29	1
Y Carrier	89.3		40 - 110					04/19/17 13:20	05/04/17 14:29	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	-0.169	U	0.231	0.232	5.00	0.427	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-136568-12

Date Collected: 04/12/17 16:50

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.132	U	0.100	0.101	1.00	0.140	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.225	U	0.231	0.232	1.00	0.463	pCi/L	04/19/17 13:20	05/04/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					04/19/17 13:20	05/04/17 14:29	1
Y Carrier	84.9		40 - 110					04/19/17 13:20	05/04/17 14:29	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	-0.0936	U	0.252	0.253	5.00	0.463	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-136568-13

Date Collected: 04/12/17 15:00

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145	U	0.109	0.110	1.00	0.153	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0734	U	0.285	0.285	1.00	0.500	pCi/L	04/19/17 13:20	05/04/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					04/19/17 13:20	05/04/17 14:29	1
Y Carrier	86.7		40 - 110					04/19/17 13:20	05/04/17 14:29	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	0.219	U	0.305	0.306	5.00	0.500	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-136568-14

Date Collected: 04/12/17 13:45

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.102	0.102	1.00	0.156	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00608	U	0.247	0.247	1.00	0.451	pCi/L	04/19/17 13:20	05/04/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					04/19/17 13:20	05/04/17 14:29	1
Y Carrier	85.2		40 - 110					04/19/17 13:20	05/04/17 14:29	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	0.112	U	0.267	0.267	5.00	0.451	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-136568-15

Date Collected: 04/12/17 10:55

Matrix: Water

Date Received: 04/14/17 08:44

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0619	U	0.0934	0.0935	1.00	0.161	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.325	U	0.305	0.306	1.00	0.491	pCi/L	04/19/17 13:20	05/04/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/19/17 13:20	05/04/17 14:29	1
Y Carrier	83.4		40 - 110					04/19/17 13:20	05/04/17 14:29	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	0.387	U	0.319	0.320	5.00	0.491	pCi/L		05/12/17 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: DUP-1

Date Collected: 04/12/17 00:00

Date Received: 04/14/17 08:44

Lab Sample ID: 400-136568-16

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	0.0300	U	0.0961	0.0962	1.00	0.180	pCi/L	04/18/17 14:51	05/11/17 06:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/18/17 14:51	05/11/17 06:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0207	U	0.337	0.337	1.00	0.603	pCi/L	04/19/17 13:20	05/04/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/19/17 13:20	05/04/17 14:29	1
Y Carrier	79.3		40 - 110					04/19/17 13:20	05/04/17 14:29	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	0.00929	U	0.351	0.351	5.00	0.603	pCi/L		05/12/17 15:24	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWA-3

Date Collected: 04/11/17 13:15

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308227	05/11/17 06:16	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWA-12

Date Collected: 04/11/17 15:05

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308227	05/11/17 06:16	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-16

Date Collected: 04/11/17 16:35

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308227	05/11/17 06:16	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWA-14

Date Collected: 04/11/17 10:10

Date Received: 04/13/17 09:01

Lab Sample ID: 400-136568-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-136568-5

Date Collected: 04/11/17 12:40

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWA-5

Lab Sample ID: 400-136568-6

Date Collected: 04/11/17 15:00

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-17

Lab Sample ID: 400-136568-7

Date Collected: 04/11/17 16:45

Matrix: Water

Date Received: 04/13/17 09:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-7

Lab Sample ID: 400-136568-8

Date Collected: 04/12/17 10:25

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: EB-1-4-12-17

Lab Sample ID: 400-136568-9

Date Collected: 04/12/17 16:55

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-8

Lab Sample ID: 400-136568-10

Date Collected: 04/12/17 14:55

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: FB-1-4-12-17

Lab Sample ID: 400-136568-11

Date Collected: 04/12/17 14:10

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:29	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-18

Lab Sample ID: 400-136568-12

Date Collected: 04/12/17 16:50

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:29	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-136568-13

Date Collected: 04/12/17 15:00

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:29	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-10

Lab Sample ID: 400-136568-14

Date Collected: 04/12/17 13:45

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:29	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: ARGWC-15

Lab Sample ID: 400-136568-15

Date Collected: 04/12/17 10:55

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:29	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Client Sample ID: DUP-1

Lab Sample ID: 400-136568-16

Date Collected: 04/12/17 00:00

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304150	04/18/17 14:51	LDE	TAL SL
Total/NA	Analysis	9315		1	308224	05/11/17 06:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304335	04/19/17 13:20	LDE	TAL SL
Total/NA	Analysis	9320		1	307223	05/04/17 14:29	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308452	05/12/17 15:24	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
 SDG: Pond 3

Rad

Prep Batch: 304150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total/NA	Water	PrecSep-21	
400-136568-2	ARGWA-12	Total/NA	Water	PrecSep-21	
400-136568-3	ARGWC-16	Total/NA	Water	PrecSep-21	
400-136568-4	ARGWA-14	Total/NA	Water	PrecSep-21	
400-136568-5	ARGWA-13	Total/NA	Water	PrecSep-21	
400-136568-6	ARGWA-5	Total/NA	Water	PrecSep-21	
400-136568-7	ARGWC-17	Total/NA	Water	PrecSep-21	
400-136568-8	ARGWC-7	Total/NA	Water	PrecSep-21	
400-136568-9	EB-1-4-12-17	Total/NA	Water	PrecSep-21	
400-136568-10	ARGWC-8	Total/NA	Water	PrecSep-21	
400-136568-11	FB-1-4-12-17	Total/NA	Water	PrecSep-21	
400-136568-12	ARGWC-18	Total/NA	Water	PrecSep-21	
400-136568-13	ARGWC-9	Total/NA	Water	PrecSep-21	
400-136568-14	ARGWC-10	Total/NA	Water	PrecSep-21	
400-136568-15	ARGWC-15	Total/NA	Water	PrecSep-21	
400-136568-16	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-304150/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304150/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-136568-3 DU	ARGWC-16	Total/NA	Water	PrecSep-21	

Prep Batch: 304335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136568-1	ARGWA-3	Total/NA	Water	PrecSep_0	
400-136568-2	ARGWA-12	Total/NA	Water	PrecSep_0	
400-136568-3	ARGWC-16	Total/NA	Water	PrecSep_0	
400-136568-4	ARGWA-14	Total/NA	Water	PrecSep_0	
400-136568-5	ARGWA-13	Total/NA	Water	PrecSep_0	
400-136568-6	ARGWA-5	Total/NA	Water	PrecSep_0	
400-136568-7	ARGWC-17	Total/NA	Water	PrecSep_0	
400-136568-8	ARGWC-7	Total/NA	Water	PrecSep_0	
400-136568-9	EB-1-4-12-17	Total/NA	Water	PrecSep_0	
400-136568-10	ARGWC-8	Total/NA	Water	PrecSep_0	
400-136568-11	FB-1-4-12-17	Total/NA	Water	PrecSep_0	
400-136568-12	ARGWC-18	Total/NA	Water	PrecSep_0	
400-136568-13	ARGWC-9	Total/NA	Water	PrecSep_0	
400-136568-14	ARGWC-10	Total/NA	Water	PrecSep_0	
400-136568-15	ARGWC-15	Total/NA	Water	PrecSep_0	
400-136568-16	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-304335/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304335/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-136568-3 DU	ARGWC-16	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-304150/1-A
Matrix: Water
Analysis Batch: 308227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304150

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03481	U	0.0451	0.0452	1.00	0.0719	pCi/L	04/18/17 14:51	05/11/17 06:15	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					04/18/17 14:51	05/11/17 06:15	1

Lab Sample ID: LCS 160-304150/2-A
Matrix: Water
Analysis Batch: 308227

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304150

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	14.35		1.50	1.00	0.0828	pCi/L	95	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.2		40 - 110						

Lab Sample ID: 400-136568-3 DU
Matrix: Water
Analysis Batch: 308227

Client Sample ID: ARGWC-16
Prep Type: Total/NA
Prep Batch: 304150

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.127	U	0.1129	U	0.0851	1.00	0.114	pCi/L	0.08	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.6		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-304335/1-A
Matrix: Water
Analysis Batch: 307225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304335

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.05015	U	0.248	0.248	1.00	0.456	pCi/L	04/19/17 13:20	05/04/17 14:28	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					04/19/17 13:20	05/04/17 14:28	1
Y Carrier	87.1		40 - 110					04/19/17 13:20	05/04/17 14:28	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

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

Lab Sample ID: LCS 160-304335/2-A
Matrix: Water
Analysis Batch: 307223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304335

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.0	16.77		1.83	1.00	0.509	pCi/L	93	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.2		40 - 110
Y Carrier	89.0		40 - 110

Lab Sample ID: 400-136568-3 DU
Matrix: Water
Analysis Batch: 307223

Client Sample ID: ARGWC-16
Prep Type: Total/NA
Prep Batch: 304335

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.207	U	0.2484	U	0.321	1.00	0.531	pCi/L	0.06	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.6		40 - 110
Y Carrier	87.9		40 - 110

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

Lab Sample ID: 400-136568-3 DU
Matrix: Water
Analysis Batch: 308452

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.334	U	0.3612	U	0.332	5.00	0.531	pCi/L	0.04	

Chain of Custody Record

Client Information Client Contact: Joji Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, 30308 Phone: _____ Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright & State P+O Site: POND 3		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): TA-ATL P-CE-VUP COC No: 400-64280-24993.2 Page: 2 of 2 Job #: 400-136568							
Due Date Requested: TAT Requested (days): PO #: SCS10347666 WO #: Project #: 40007041 SOW#:	Sample Date 4/11/17 4/11/17 4/11/17 4/11/17 4/11/17 4/11/17	Sample Time 1318 1505 1635 1010 1240 1500 1645	Sample Type (C=Comp, G=grab) G G G G G G G	Matrix (W=water, S=solid, O=soil, BT=tissue, A=air) Water Water Water Water Water Water Water	Field Filtered Sample (Yes or No) N N N N N N N	9316_Ra226, 9320_Ra228 6020, 7470A 2640C, 300_ORGM_28D Metals: (State: As, Hg, Ba, Cd, Pb, Se)	Analysis Requested Total Number of Containers 3 3 4 3 3 3 3	Special Instructions/Note: extra Rad here	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:					
Empty Kit Relinquished by:				Method of Shipment:					
Relinquished by: [Signature] Date: 4-12-17 0815 Company: ACE				Relinquished by: [Signature] Date: 4/12/17 16:08 Company: TIA					
Relinquished by: [Signature] Date: 4/12/17 16:08 Company: TIA				Relinquished by: [Signature] Date: 4-13-17 0901 Company: TIA					
Custody Seal Intact: A Yes A No Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: 2.8 / 2.02 50.0					



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: [Blank] Email: JAbraham@southernco.com Project Name: CCR-Plant Arkwright + State D + O Site: POND 3		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): TA-ATL Drop off		COC No: 400-64280-24993.3 Page: [Blank] Job #: 400-136568	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007041 SSOW#:		Analysis Requested 9315_Ra226, 9320_Ra228 6020, 7470A 2540C, 300_ORGFM, 28D Metals (States: AS, Ag, Br, Cd, Pb, Se)			
Sample Identification ARGWC-7 EB-1-4-12-17 ARGWC-8 FB-1-4-12-17 ARGWC-1B ARGWC-9 ARGWC-10 ARGWC-15 DUP-1		Sample Date 4/12/17 4/12/17 4/12/17 4/12/17 4/12/17 4/12/17 4/12/17		Sample Time 1025 1655 1455 1410 1650 1500 1345 1055 -	
Sample Type (C=Comp, G=grab) G G G G G G G G W		Matrix (Water, Solid, Other) Water Water W W W W W W W		Field Filtered Sample (Yes or No) N N N N N N N N N	
Preservation Code: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Total Number of Containers 3 3 3 3 3 3 3 3 3		Special Instructions/Note: [Blank]	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements: Empty Kit Relinquished by: [Blank] Date: [Blank] Relinquished by: Bym Walker Date/Time: 4-13-17 10:27 Company: [Blank] Relinquished by: [Signature] Date/Time: 4/13/17 10:27 Company: [Blank] Relinquished by: [Signature] Date/Time: 4/13/17 08:44 Company: [Blank]					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: 3.8°C [Signature]					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136568-2

SDG Number: Pond 3

Login Number: 136568

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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.	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	2.8°C, 2.0°C, 3.8°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

Laboratory: 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

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	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

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

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136568-2
SDG: Pond 3

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
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17 *
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

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

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-136606-1

TestAmerica Sample Delivery Group: Pond 3 Field Filtered

Client Project/Site: CCR Plant Arkwright

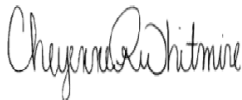
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

4/30/2017 1:25:15 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Job ID: 400-136606-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-136606-1

Metals

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: ARGWC-18-FILTERED (400-136606-1). Elevated reporting limits (RLs) are provided.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Client Sample ID: ARGWC-18-FILTERED

Lab Sample ID: 400-136606-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium, Dissolved	0.029		0.0025	0.00049	mg/L	5		6020	Dissolved
Calcium, Dissolved	48		0.25	0.13	mg/L	5		6020	Dissolved
Cobalt, Dissolved	0.0014	J	0.0025	0.00040	mg/L	5		6020	Dissolved
Lead, Dissolved	0.0011	J	0.0013	0.00035	mg/L	5		6020	Dissolved
Lithium, Dissolved	0.0036	J	0.0050	0.0032	mg/L	5		6020	Dissolved
Boron, Dissolved - DL	2.5		0.25	0.11	mg/L	25		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN

Protocol References:

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-136606-1	ARGWC-18-FILTERED	Water	04/12/17 16:50	04/14/17 08:44

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Client Sample ID: ARGWC-18-FILTERED

Lab Sample ID: 400-136606-1

Date Collected: 04/12/17 16:50

Matrix: Water

Date Received: 04/14/17 08:44

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		04/24/17 09:48	04/26/17 12:51	5
Silver, Dissolved	<0.11		0.25	0.11	ug/L		04/24/17 09:48	04/26/17 12:51	5
Barium, Dissolved	0.029		0.0025	0.00049	mg/L		04/24/17 09:48	04/26/17 12:51	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		04/24/17 09:48	04/26/17 12:51	5
Calcium, Dissolved	48		0.25	0.13	mg/L		04/24/17 09:48	04/26/17 12:51	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		04/24/17 09:48	04/26/17 12:51	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		04/24/17 09:48	04/26/17 12:51	5
Cobalt, Dissolved	0.0014	J	0.0025	0.00040	mg/L		04/24/17 09:48	04/26/17 12:51	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		04/24/17 09:48	04/26/17 12:51	5
Lead, Dissolved	0.0011	J	0.0013	0.00035	mg/L		04/24/17 09:48	04/26/17 12:51	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		04/24/17 09:48	04/26/17 12:51	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		04/24/17 09:48	04/26/17 12:51	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		04/24/17 09:48	04/26/17 12:51	5
Lithium, Dissolved	0.0036	J	0.0050	0.0032	mg/L		04/24/17 09:48	04/26/17 12:51	5

Method: 6020 - Metals (ICP/MS) - Dissolved - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron, Dissolved	2.5		0.25	0.11	mg/L		04/24/17 09:48	04/26/17 14:37	25

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		04/25/17 14:15	04/26/17 12:57	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Qualifiers

Metals

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

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Client Sample ID: ARGWC-18-FILTERED

Lab Sample ID: 400-136606-1

Date Collected: 04/12/17 16:50

Matrix: Water

Date Received: 04/14/17 08:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			350974	04/24/17 09:48	DRE	TAL PEN
Dissolved	Analysis	6020		5	351496	04/26/17 12:51	DRE	TAL PEN
Dissolved	Prep	3005A	DL		350974	04/24/17 09:48	DRE	TAL PEN
Dissolved	Analysis	6020	DL	25	351496	04/26/17 14:37	DRE	TAL PEN
Dissolved	Prep	7470A			351232	04/25/17 14:15	JAP	TAL PEN
Dissolved	Analysis	7470A		1	351428	04/26/17 12:57	JAP	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Metals

Prep Batch: 350974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136606-1	ARGWC-18-FILTERED	Dissolved	Water	3005A	
400-136606-1 - DL	ARGWC-18-FILTERED	Dissolved	Water	3005A	
MB 400-350974/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-350974/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-136660-B-3-A MS ^5	Matrix Spike	Dissolved	Water	3005A	
400-136660-B-3-B MSD ^5	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 351232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136606-1	ARGWC-18-FILTERED	Dissolved	Water	7470A	
MB 400-351232/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-351232/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-136587-D-3-D MS	Matrix Spike	Total/NA	Water	7470A	
400-136587-D-3-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 351428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136606-1	ARGWC-18-FILTERED	Dissolved	Water	7470A	351232
MB 400-351232/14-A	Method Blank	Total/NA	Water	7470A	351232
LCS 400-351232/15-A	Lab Control Sample	Total/NA	Water	7470A	351232
400-136587-D-3-D MS	Matrix Spike	Total/NA	Water	7470A	351232
400-136587-D-3-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	351232

Analysis Batch: 351496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-136606-1	ARGWC-18-FILTERED	Dissolved	Water	6020	350974
400-136606-1 - DL	ARGWC-18-FILTERED	Dissolved	Water	6020	350974
MB 400-350974/1-A ^5	Method Blank	Total Recoverable	Water	6020	350974
LCS 400-350974/2-A	Lab Control Sample	Total Recoverable	Water	6020	350974
400-136660-B-3-A MS ^5	Matrix Spike	Dissolved	Water	6020	350974
400-136660-B-3-B MSD ^5	Matrix Spike Duplicate	Dissolved	Water	6020	350974

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-350974/1-A ^5
Matrix: Water
Analysis Batch: 351496

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350974

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.00046		0.0013	0.00046	mg/L		04/24/17 09:48	04/26/17 12:15	5
Silver, Dissolved	<0.11		0.25	0.11	ug/L		04/24/17 09:48	04/26/17 12:15	5
Boron, Dissolved	<0.021		0.050	0.021	mg/L		04/24/17 09:48	04/26/17 12:15	5
Barium, Dissolved	<0.00049		0.0025	0.00049	mg/L		04/24/17 09:48	04/26/17 12:15	5
Beryllium, Dissolved	<0.00034		0.0025	0.00034	mg/L		04/24/17 09:48	04/26/17 12:15	5
Calcium, Dissolved	<0.13		0.25	0.13	mg/L		04/24/17 09:48	04/26/17 12:15	5
Cadmium, Dissolved	<0.00034		0.0025	0.00034	mg/L		04/24/17 09:48	04/26/17 12:15	5
Chromium, Dissolved	<0.0011		0.0025	0.0011	mg/L		04/24/17 09:48	04/26/17 12:15	5
Cobalt, Dissolved	<0.00040		0.0025	0.00040	mg/L		04/24/17 09:48	04/26/17 12:15	5
Molybdenum, Dissolved	<0.00085		0.015	0.00085	mg/L		04/24/17 09:48	04/26/17 12:15	5
Lead, Dissolved	<0.00035		0.0013	0.00035	mg/L		04/24/17 09:48	04/26/17 12:15	5
Antimony, Dissolved	<0.0010		0.0025	0.0010	mg/L		04/24/17 09:48	04/26/17 12:15	5
Thallium, Dissolved	<0.000085		0.00050	0.000085	mg/L		04/24/17 09:48	04/26/17 12:15	5
Selenium, Dissolved	<0.00024		0.0013	0.00024	mg/L		04/24/17 09:48	04/26/17 12:15	5
Lithium, Dissolved	<0.0032		0.0050	0.0032	mg/L		04/24/17 09:48	04/26/17 12:15	5

Lab Sample ID: LCS 400-350974/2-A
Matrix: Water
Analysis Batch: 351496

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic, Dissolved	0.0500	0.0506		mg/L		101	80 - 120
Silver, Dissolved	50.0	50.4		ug/L		101	80 - 120
Boron, Dissolved	0.100	0.0987		mg/L		99	80 - 120
Barium, Dissolved	0.0500	0.0500		mg/L		100	80 - 120
Beryllium, Dissolved	0.0500	0.0491		mg/L		98	80 - 120
Calcium, Dissolved	5.00	4.77		mg/L		95	80 - 120
Cadmium, Dissolved	0.0500	0.0506		mg/L		101	80 - 120
Chromium, Dissolved	0.0500	0.0497		mg/L		99	80 - 120
Cobalt, Dissolved	0.0500	0.0517		mg/L		103	80 - 120
Molybdenum, Dissolved	0.100	0.100		mg/L		100	80 - 120
Lead, Dissolved	0.0500	0.0514		mg/L		103	80 - 120
Antimony, Dissolved	0.0500	0.0542		mg/L		108	80 - 120
Thallium, Dissolved	0.0100	0.0102		mg/L		102	80 - 120
Selenium, Dissolved	0.0500	0.0495		mg/L		99	80 - 120
Lithium, Dissolved	0.0500	0.0514		mg/L		103	80 - 120

Lab Sample ID: 400-136660-B-3-A MS ^5
Matrix: Water
Analysis Batch: 351496

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 350974

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic, Dissolved	0.00068	J	0.0500	0.0517		mg/L		102	75 - 125
Silver, Dissolved	<0.11		50.0	50.4		ug/L		101	75 - 125
Boron, Dissolved	0.027	J	0.100	0.126		mg/L		99	75 - 125
Barium, Dissolved	0.067		0.0500	0.121		mg/L		109	75 - 125
Beryllium, Dissolved	<0.00034		0.0500	0.0490		mg/L		98	75 - 125
Calcium, Dissolved	80		5.00	88.2	4	mg/L		165	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
SDG: Pond 3 Field Filtered

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

Lab Sample ID: 400-136660-B-3-A MS ^5
Matrix: Water
Analysis Batch: 351496

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 350974

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Cadmium, Dissolved	<0.00034		0.0500	0.0521		mg/L		104		75 - 125
Chromium, Dissolved	<0.0011		0.0500	0.0542		mg/L		108		75 - 125
Cobalt, Dissolved	<0.00040		0.0500	0.0509		mg/L		102		75 - 125
Molybdenum, Dissolved	0.0093	J	0.100	0.111		mg/L		102		75 - 125
Lead, Dissolved	<0.00035		0.0500	0.0513		mg/L		103		75 - 125
Antimony, Dissolved	<0.0010		0.0500	0.0573		mg/L		115		75 - 125
Thallium, Dissolved	<0.000085		0.0100	0.00983		mg/L		98		75 - 125
Selenium, Dissolved	0.0043		0.0500	0.0554		mg/L		102		75 - 125
Lithium, Dissolved	<0.0032		0.0500	0.0468		mg/L		94		75 - 125

Lab Sample ID: 400-136660-B-3-B MSD ^5
Matrix: Water
Analysis Batch: 351496

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 350974

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Arsenic, Dissolved	0.00068	J	0.0500	0.0510		mg/L		101		75 - 125	1	20
Silver, Dissolved	<0.11		50.0	48.6		ug/L		97		75 - 125	4	20
Boron, Dissolved	0.027	J	0.100	0.119		mg/L		92		75 - 125	6	20
Barium, Dissolved	0.067		0.0500	0.116		mg/L		99		75 - 125	4	20
Beryllium, Dissolved	<0.00034		0.0500	0.0481		mg/L		96		75 - 125	2	20
Calcium, Dissolved	80		5.00	87.2	4	mg/L		144		75 - 125	1	20
Cadmium, Dissolved	<0.00034		0.0500	0.0497		mg/L		99		75 - 125	5	20
Chromium, Dissolved	<0.0011		0.0500	0.0525		mg/L		105		75 - 125	3	20
Cobalt, Dissolved	<0.00040		0.0500	0.0509		mg/L		102		75 - 125	0	20
Molybdenum, Dissolved	0.0093	J	0.100	0.104		mg/L		95		75 - 125	7	20
Lead, Dissolved	<0.00035		0.0500	0.0508		mg/L		102		75 - 125	1	20
Antimony, Dissolved	<0.0010		0.0500	0.0536		mg/L		107		75 - 125	7	20
Thallium, Dissolved	<0.000085		0.0100	0.0100		mg/L		100		75 - 125	2	20
Selenium, Dissolved	0.0043		0.0500	0.0521		mg/L		95		75 - 125	6	20
Lithium, Dissolved	<0.0032		0.0500	0.0455		mg/L		91		75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-351232/14-A
Matrix: Water
Analysis Batch: 351428

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351232

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury, Dissolved	<0.000070		0.00020	0.000070	mg/L		04/25/17 13:58	04/26/17 12:27	1

Lab Sample ID: LCS 400-351232/15-A
Matrix: Water
Analysis Batch: 351428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351232

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Mercury, Dissolved	0.00101	0.000922		mg/L		92		80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
 SDG: Pond 3 Field Filtered

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

Lab Sample ID: 400-136587-D-3-D MS
Matrix: Water
Analysis Batch: 351428

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 351232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury, Dissolved	<0.000070		0.00201	0.00185		mg/L		92	80 - 120

Lab Sample ID: 400-136587-D-3-E MSD
Matrix: Water
Analysis Batch: 351428

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 351232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury, Dissolved	<0.000070		0.00201	0.00185		mg/L		92	80 - 120	0	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright Site:		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): TA-ATL Prep off		COC No: 400-64280-24993.1 Page: 1 of 1 Job #: 100-136606	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007041 SSOW#:		Analysis Requested 9315_Ra226, 9320_Ra228 6020, 7470A 2540C, 300_ORGFM 28D D.S. Met (State: As, Ag, Ba, Cd, Pb, Se)			
Sample Identification ARBWC-18 - Filtered Sample Date: 4/12/17 Sample Time: 1650 Sample Type (C=Comp, G=grab): G Matrix (Water, Solid, Other): Water Preservation Code:		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes Total Number of Containers: 1 Special Instructions/Note: Separate report for this sample. Field filtered sample.			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by: Relinquished by: Ryan Walker Date/Time: 4/13/17 10:27 Company: Acc		Method of Shipment: Relinquished by: JTK Date/Time: 4/13/17 10:27 Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 38.2			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-136606-1
SDG Number: Pond 3 Field Filtered

Login Number: 136606

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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	3.8°C IR-2
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	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-136606-1
 SDG: Pond 3 Field Filtered

Laboratory: 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17



Product Name: Low-Flow System

Date: 2017-04-11 13:42:14

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 39 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 35.58 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.6769272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 37 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%	+/- 0		+/- 0.2	+/- 0
Last 5	12:50:15	9904.88	20.19	5.84	86.52	5.34	35.80	6.19	114.69
Last 5	12:55:15	10204.92	20.13	5.85	86.38	5.18	35.80	6.17	114.72
Last 5	13:00:15	10504.86	20.04	5.84	86.33	5.02	35.80	6.17	114.71
Last 5	13:05:15	10804.86	19.91	5.85	86.43	4.85	35.80	6.17	114.05
Last 5	13:10:15	11104.86	20.12	5.82	86.62	4.81	35.80	6.20	114.95
Variance 0			-0.09	-0.01	-0.05			-0.01	-0.01
Variance 1			-0.13	0.01	0.11			0.01	-0.67
Variance 2			0.22	-0.03	0.19			0.03	0.90

Notes

Collected at 13:15. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 14:58:26

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 56.51"
Longitude -83° -42' -30.01"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 38 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 23.58 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.6546101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 18 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%	+/- 0		+/- 10%	+/- 0
Last 5	14:33:26	3299.98	19.28	5.77	76.49	1.63	23.70	5.62	114.10
Last 5	14:38:26	3599.98	19.19	5.77	76.48	1.28	23.70	5.63	115.79
Last 5	14:43:26	3899.96	19.18	5.75	76.42	1.31	23.70	5.64	116.83
Last 5	14:48:26	4199.96	19.16	5.77	76.51	1.20	23.70	5.67	117.61
Last 5	14:53:26	4500.00	19.15	5.78	76.50	1.06	23.70	5.67	118.05
Variance 0			-0.01	-0.02	-0.05			0.01	1.04
Variance 1			-0.02	0.02	0.08			0.03	0.77
Variance 2			-0.01	0.01	-0.00			-0.00	0.45

Notes

Sunny 80's. Sampled at 15:00.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 15:01:29

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 48 ft

Pump placement from TOC 45.3 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 48.32 ft
Screen Length 10 ft
Depth to Water 16.95 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 5.5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	14:37:08	600.02	20.41	5.93	186.90	1.42	17.30	2.87	113.27
Last 5	14:42:08	900.01	20.30	5.92	184.76	1.80	17.30	2.95	112.91
Last 5	14:47:08	1200.01	20.21	5.90	181.61	1.75	17.30	3.09	114.34
Last 5	14:52:08	1500.01	20.08	5.90	181.34	1.64	17.30	3.09	113.32
Last 5	14:57:08	1800.01	20.01	5.88	180.70	1.50	17.30	3.18	113.82
Variance 0			-0.09	-0.03	-3.14			0.14	1.44
Variance 1			-0.13	0.00	-0.27			-0.00	-1.02
Variance 2			-0.07	-0.02	-0.65			0.09	0.50

Notes

Collected at 15:05. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 12:39:28

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 46.75"
Longitude -83° -42' -19.63"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 24.77 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.16 in
Total Volume Pumped 3.6 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%	+/- 0		+/- 10%	+/- 0
Last 5	12:16:32	600.02	18.84	5.86	899.22	0.67	25.10	1.53	74.37
Last 5	12:21:32	900.02	18.60	5.83	844.22	0.58	25.10	1.66	78.81
Last 5	12:26:32	1200.02	18.53	5.80	837.91	0.49	25.10	1.40	83.07
Last 5	12:31:32	1500.02	18.66	5.79	827.56	0.42	25.20	1.40	86.75
Last 5	12:36:32	1800.02	18.68	5.78	816.83	0.50	25.20	1.47	89.76
Variance 0			-0.08	-0.03	-6.30			-0.26	4.26
Variance 1			0.13	-0.01	-10.35			-0.00	3.68
Variance 2			0.02	-0.01	-10.73			0.07	3.01

Notes

Sunny 70's. Sampled at 12:40.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 10:12:12

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 47.88"
Longitude -83° -42' -16.37"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 63 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.24 ft
Screen Length 10 ft
Depth to Water 43.29 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.853275 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 34.92 in
Total Volume Pumped 2.25 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:48:59	1500.00	17.84	6.72	664.80	0.49	45.50	2.73	64.39
Last 5	09:53:59	1799.99	17.98	6.72	657.17	0.42	45.70	3.04	64.03
Last 5	09:58:59	2100.00	18.12	6.73	650.95	1.25	45.90	3.38	63.94
Last 5	10:03:59	2400.00	18.20	6.72	642.67	0.50	46.10	3.29	64.60
Last 5	10:08:59	2700.00	18.27	6.72	636.60	0.43	46.20	3.21	65.15
Variance 0			0.13	0.01	-6.22			0.34	-0.09
Variance 1			0.08	-0.01	-8.29			-0.09	0.65
Variance 2			0.07	0.00	-6.06			-0.08	0.55

Notes

Sunny 60's. Sampled at 10:10.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-12 10:24:57

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 39 ft

Pump placement from TOC 35.3 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 23.47 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.332027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	10:02:37	900.01	18.74	5.66	200.67	11.00	23.60	2.61	118.70
Last 5	10:07:37	1200.00	18.79	5.63	200.59	9.21	23.60	2.52	119.07
Last 5	10:12:37	1499.99	18.77	5.64	201.19	6.61	23.60	2.52	118.83
Last 5	10:17:37	1800.00	18.81	5.65	201.95	4.04	23.60	2.56	118.56
Last 5	10:22:37	2100.01	18.85	5.65	202.18	3.54	23.60	2.58	118.35
Variance 0			-0.02	0.00	0.59			-0.00	-0.24
Variance 1			0.04	0.01	0.77			0.04	-0.28
Variance 2			0.03	-0.00	0.22			0.02	-0.20

Notes

Collected at 10:25. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-12 14:58:28

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 45 ft

Pump placement from TOC 38.2 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 25.92 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.462339 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	14:34:06	5099.96	21.86	6.36	476.73	4.90	26.10	0.19	76.99
Last 5	14:39:06	5399.96	22.13	6.36	479.04	5.41	26.10	0.20	76.55
Last 5	14:44:06	5699.96	22.11	6.36	476.89	5.16	26.10	0.19	76.97
Last 5	14:49:06	5999.96	22.18	6.36	477.09	4.77	26.10	0.19	77.40
Last 5	14:54:06	6299.94	22.46	6.36	479.07	4.16	26.10	0.20	77.54
Variance 0			-0.02	0.00	-2.16			-0.01	0.42
Variance 1			0.07	-0.00	0.20			-0.01	0.43
Variance 2			0.28	-0.00	1.99			0.01	0.14

Notes

Collected at 14:55. Sunny 80s. FB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-12 14:58:56

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 38.71"
Longitude -83° -42' -29.42"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 43 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.05 ft
Screen Length 10 ft
Depth to Water 21.56 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.418902 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:35:58	300.03	21.13	5.84	82.02	1.53	21.70	5.25	130.23
Last 5	14:40:58	600.02	20.93	5.83	81.66	185.00	21.70	5.17	130.47
Last 5	14:45:58	900.02	20.93	5.81	82.13	2.20	21.70	5.01	130.73
Last 5	14:50:59	1201.02	20.84	5.79	82.20	4.00	21.70	4.95	131.01
Last 5	14:55:59	1501.02	21.01	5.79	82.65	2.23	21.70	4.94	130.66
Variance 0			0.00	-0.02	0.47			-0.16	0.26
Variance 1			-0.09	-0.02	0.07			-0.06	0.28
Variance 2			0.17	-0.00	0.44			-0.01	-0.36

Notes

Sunny 80's. Sampled at 15:00.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-12 13:47:09

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 42.08"
Longitude -83° -42' -30.48"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 43 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.27 ft
Screen Length 10 ft
Depth to Water 21.99 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 1.418902 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.72 in
Total Volume Pumped 10.5 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%	+/- 0		+/- 10%	+/- 0
Last 5	13:23:10	600.02	19.59	5.91	99.86	6.82	22.30	4.67	120.48
Last 5	13:28:10	900.01	19.50	5.90	99.46	6.18	22.30	4.54	122.46
Last 5	13:33:10	1200.01	19.43	5.88	98.81	5.96	22.30	4.55	124.12
Last 5	13:38:10	1500.00	19.38	5.86	98.68	6.42	22.30	4.53	126.09
Last 5	13:43:10	1800.00	19.36	5.87	98.49	4.88	22.30	4.50	125.68
Variance 0			-0.08	-0.02	-0.65			0.01	1.66
Variance 1			-0.04	-0.02	-0.13			-0.02	1.97
Variance 2			-0.03	0.01	-0.20			-0.03	-0.41

Notes

Sunny 70's. Sampled at 13:45

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-12 10:57:01

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 42.06"
Longitude -83° -42' -16.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 47 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 29.79 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.505776 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 42.12 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:31:01	4799.97	19.15	6.07	172.93	0.46	32.90	4.13	125.56
Last 5	10:36:01	5099.97	19.37	6.08	174.39	0.52	33.00	4.07	125.24
Last 5	10:41:01	5399.97	19.50	6.08	175.42	0.56	33.10	4.00	125.10
Last 5	10:46:01	5699.91	19.59	6.08	176.91	0.49	33.20	3.96	125.32
Last 5	10:51:01	5999.92	19.59	6.10	178.58	0.50	33.30	3.88	124.47
Variance 0			0.13	0.01	1.04			-0.07	-0.13
Variance 1			0.08	-0.00	1.49			-0.03	0.22
Variance 2			0.00	0.02	1.67			-0.08	-0.86

Notes

Sunny 60's. Sampled at 10:55.

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 16:37:31

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 35 ft

Pump placement from TOC 29.5 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 21.20 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.245153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 9.4 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	16:11:14	900.01	22.09	5.22	408.89	0.45	21.30	0.76	161.10
Last 5	16:16:15	1201.02	21.97	5.22	408.50	0.52	21.30	0.74	163.32
Last 5	16:21:15	1501.02	21.73	5.22	409.62	0.38	21.30	0.73	164.02
Last 5	16:26:15	1800.99	22.40	5.22	411.13	0.41	21.30	0.74	164.87
Last 5	16:31:15	2101.00	20.94	5.21	411.03	0.33	21.30	0.78	171.38
Variance 0			-0.24	0.00	1.12			-0.01	0.70
Variance 1			0.67	-0.00	1.51			0.01	0.85
Variance 2			-1.45	-0.01	-0.09			0.04	6.51

Notes

Collected at 16:35. Sunny 80s. Extra Rad here

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-11 16:47:54

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 42.25"
Longitude -83° -42' -20.79"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 38 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 22.42 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.310309 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.96 in
Total Volume Pumped 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%	+/- 0		+/- 10%	+/- 0
Last 5	16:20:50	2400.00	20.84	5.35	250.56	1.04	23.00	0.73	122.23
Last 5	16:25:50	2700.00	20.97	5.34	248.03	0.96	23.00	0.60	124.67
Last 5	16:30:50	3000.01	20.84	5.34	245.21	1.03	23.00	0.53	126.44
Last 5	16:35:50	3299.98	20.61	5.33	243.36	0.79	23.00	0.56	127.88
Last 5	16:40:50	3599.97	20.35	5.33	242.09	0.81	23.00	0.48	128.48
Variance 0			-0.13	-0.00	-2.82			-0.07	1.77
Variance 1			-0.23	-0.01	-1.85			0.03	1.44
Variance 2			-0.26	0.00	-1.27			-0.08	0.60

Notes

Sunny 80's. Sampled at 16:45

Grab Samples

Product Name: Low-Flow System

Date: 2017-04-12 16:52:27

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 51 ft

Pump placement from TOC 45.6 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 28.13 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.592651 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 53 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%	+/- 0		+/- 0.2	+/- 0
Last 5	16:27:31	1920.01	24.06	5.97	596.47	14.40	28.40	0.29	68.70
Last 5	16:32:31	2220.05	23.66	5.97	592.40	15.10	28.40	0.33	69.61
Last 5	16:37:31	2520.01	22.98	5.97	596.84	14.30	28.40	0.36	69.65
Last 5	16:42:31	2819.98	23.00	5.97	598.58	14.60	28.40	0.29	69.21
Last 5	16:47:31	3119.98	22.96	5.97	597.41	14.40	28.40	0.29	69.18
Variance 0			-0.68	0.00	4.44			0.04	0.04
Variance 1			0.02	-0.01	1.74			-0.08	-0.44
Variance 2			-0.04	0.00	-1.17			0.00	-0.03

Notes

Collected at 16:50. Sunny 70s. Started purge at 11:20 to allow turbidity time to come down. EB-1 here.

Grab Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139638-1

TestAmerica Sample Delivery Group: Pond #3

Client Project/Site: CCR Plant Arkwright - Ash Ponds

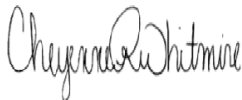
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

7/20/2017 1:30:14 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

Job ID: 400-139638-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-139638-1

Metals

Method(s) 6020: The matrix spike (MS) recoveries for preparation batch 358784 and analytical batch 359310 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-139638-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00064	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-14

Lab Sample ID: 400-139638-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.27		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	8.5		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00099	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.057		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.029	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	34		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0042	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00044	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	210		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-5

Lab Sample ID: 400-139638-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.0		1.0	0.89	mg/L	1		300.0	Total/NA
Arsenic	0.00052	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139638-1	ARGWA-3	Water	06/20/17 15:20	06/22/17 09:22
400-139638-2	ARGWA-14	Water	06/20/17 16:30	06/22/17 09:22
400-139638-3	ARGWA-5	Water	06/20/17 17:45	06/22/17 09:22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-139638-1

Date Collected: 06/20/17 15:20

Matrix: Water

Date Received: 06/22/17 09:22

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.89	mg/L			06/28/17 04:00	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 04:00	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 04:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/29/17 08:56	07/03/17 14:39	5
Arsenic	0.00064	J	0.0013	0.00046	mg/L		06/29/17 08:56	07/03/17 14:39	5
Barium	0.020		0.0025	0.00049	mg/L		06/29/17 08:56	07/03/17 14:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 14:39	5
Boron	<0.021		0.050	0.021	mg/L		06/29/17 08:56	07/03/17 14:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 14:39	5
Calcium	5.8		0.25	0.13	mg/L		06/29/17 08:56	07/03/17 14:39	5
Chromium	0.0037		0.0025	0.0011	mg/L		06/29/17 08:56	07/03/17 14:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/29/17 08:56	07/03/17 14:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/29/17 08:56	07/03/17 14:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/29/17 08:56	07/03/17 14:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/29/17 08:56	07/03/17 14:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/29/17 08:56	07/03/17 14:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/29/17 08:56	07/03/17 14:39	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		06/28/17 09:36	06/29/17 14:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	52		5.0	3.4	mg/L			06/24/17 12:50	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-139638-2

Date Collected: 06/20/17 16:30

Matrix: Water

Date Received: 06/22/17 09:22

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.89	mg/L			06/28/17 05:56	1
Fluoride	0.27		0.20	0.082	mg/L			06/28/17 05:56	1
Sulfate	8.5		1.0	0.70	mg/L			06/28/17 05:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/29/17 08:56	07/03/17 14:44	5
Arsenic	0.00099	J	0.0013	0.00046	mg/L		06/29/17 08:56	07/03/17 14:44	5
Barium	0.057		0.0025	0.00049	mg/L		06/29/17 08:56	07/03/17 14:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 14:44	5
Boron	0.029	J	0.050	0.021	mg/L		06/29/17 08:56	07/03/17 14:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 14:44	5
Calcium	34		0.25	0.13	mg/L		06/29/17 08:56	07/03/17 14:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/29/17 08:56	07/03/17 14:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/29/17 08:56	07/03/17 14:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/29/17 08:56	07/03/17 14:44	5
Lithium	0.0042	J	0.0050	0.0032	mg/L		06/29/17 08:56	07/03/17 14:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/29/17 08:56	07/03/17 14:44	5
Selenium	0.00044	J	0.0013	0.00024	mg/L		06/29/17 08:56	07/03/17 14:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/29/17 08:56	07/03/17 14:44	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		06/28/17 09:36	06/29/17 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		5.0	3.4	mg/L			06/25/17 13:21	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-139638-3

Date Collected: 06/20/17 17:45

Matrix: Water

Date Received: 06/22/17 09:22

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		1.0	0.89	mg/L			06/28/17 06:19	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 06:19	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 06:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/29/17 08:56	07/03/17 14:48	5
Arsenic	0.00052	J	0.0013	0.00046	mg/L		06/29/17 08:56	07/03/17 14:48	5
Barium	0.027		0.0025	0.00049	mg/L		06/29/17 08:56	07/03/17 14:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 14:48	5
Boron	<0.021		0.050	0.021	mg/L		06/29/17 08:56	07/03/17 14:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 14:48	5
Calcium	5.4		0.25	0.13	mg/L		06/29/17 08:56	07/03/17 14:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/29/17 08:56	07/03/17 14:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/29/17 08:56	07/03/17 14:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/29/17 08:56	07/03/17 14:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/29/17 08:56	07/03/17 14:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/29/17 08:56	07/03/17 14:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/29/17 08:56	07/03/17 14:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/29/17 08:56	07/03/17 14:48	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		06/28/17 09:36	06/29/17 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		5.0	3.4	mg/L			06/25/17 13:21	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery 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.
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

Client Sample ID: ARGWA-3

Date Collected: 06/20/17 15:20

Date Received: 06/22/17 09:22

Lab Sample ID: 400-139638-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 04:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358784	06/29/17 08:56	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 14:39	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358221	06/24/17 12:50	TET	TAL PEN

Client Sample ID: ARGWA-14

Date Collected: 06/20/17 16:30

Date Received: 06/22/17 09:22

Lab Sample ID: 400-139638-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 05:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358784	06/29/17 08:56	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 14:44	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Client Sample ID: ARGWA-5

Date Collected: 06/20/17 17:45

Date Received: 06/22/17 09:22

Lab Sample ID: 400-139638-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358693	06/28/17 06:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			358784	06/29/17 08:56	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	359310	07/03/17 14:48	DRE	TAL PEN
Total/NA	Prep	7470A			358641	06/28/17 09:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	358907	06/29/17 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358279	06/25/17 13:21	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

HPLC/IC

Analysis Batch: 358693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total/NA	Water	300.0	
400-139638-2	ARGWA-14	Total/NA	Water	300.0	
400-139638-3	ARGWA-5	Total/NA	Water	300.0	
MB 400-358693/36	Method Blank	Total/NA	Water	300.0	
LCS 400-358693/37	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-358693/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139638-1 MS	ARGWA-3	Total/NA	Water	300.0	
400-139638-1 MSD	ARGWA-3	Total/NA	Water	300.0	

Metals

Prep Batch: 358641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total/NA	Water	7470A	
400-139638-2	ARGWA-14	Total/NA	Water	7470A	
400-139638-3	ARGWA-5	Total/NA	Water	7470A	
MB 400-358641/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-358641/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139638-1 MS	ARGWA-3	Total/NA	Water	7470A	
400-139638-1 MSD	ARGWA-3	Total/NA	Water	7470A	

Prep Batch: 358784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total Recoverable	Water	3005A	
400-139638-2	ARGWA-14	Total Recoverable	Water	3005A	
400-139638-3	ARGWA-5	Total Recoverable	Water	3005A	
MB 400-358784/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-358784/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139600-G-5-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-139600-G-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 358907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total/NA	Water	7470A	358641
400-139638-2	ARGWA-14	Total/NA	Water	7470A	358641
400-139638-3	ARGWA-5	Total/NA	Water	7470A	358641
MB 400-358641/14-A	Method Blank	Total/NA	Water	7470A	358641
LCS 400-358641/15-A	Lab Control Sample	Total/NA	Water	7470A	358641
400-139638-1 MS	ARGWA-3	Total/NA	Water	7470A	358641
400-139638-1 MSD	ARGWA-3	Total/NA	Water	7470A	358641

Analysis Batch: 359310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total Recoverable	Water	6020	358784
400-139638-2	ARGWA-14	Total Recoverable	Water	6020	358784
400-139638-3	ARGWA-5	Total Recoverable	Water	6020	358784
MB 400-358784/1-A ^5	Method Blank	Total Recoverable	Water	6020	358784
LCS 400-358784/2-A	Lab Control Sample	Total Recoverable	Water	6020	358784
400-139600-G-5-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	358784
400-139600-G-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	358784

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

General Chemistry

Analysis Batch: 358221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total/NA	Water	SM 2540C	
MB 400-358221/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358221/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139638-1 DU	ARGWA-3	Total/NA	Water	SM 2540C	

Analysis Batch: 358279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-2	ARGWA-14	Total/NA	Water	SM 2540C	
400-139638-3	ARGWA-5	Total/NA	Water	SM 2540C	
MB 400-358279/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358279/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139648-A-10 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
SDG: Pond #3

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-358693/36
Matrix: Water
Analysis Batch: 358693

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/28/17 01:47	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 01:47	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 01:47	1

Lab Sample ID: LCS 400-358693/37
Matrix: Water
Analysis Batch: 358693

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-358693/38
Matrix: Water
Analysis Batch: 358693

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	0	15

Lab Sample ID: 400-139638-1 MS
Matrix: Water
Analysis Batch: 358693

Client Sample ID: ARGWA-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		10.0	12.0		mg/L		95	80 - 120
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120
Sulfate	<0.70		10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 400-139638-1 MSD
Matrix: Water
Analysis Batch: 358693

Client Sample ID: ARGWA-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.5		10.0	12.0		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120	0	20
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-358784/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		06/29/17 08:56	07/03/17 13:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		06/29/17 08:56	07/03/17 13:14	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

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

Lab Sample ID: MB 400-358784/1-A ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 358784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		06/29/17 08:56	07/03/17 13:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 13:14	5
Boron	<0.021		0.050	0.021	mg/L		06/29/17 08:56	07/03/17 13:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		06/29/17 08:56	07/03/17 13:14	5
Calcium	<0.13		0.25	0.13	mg/L		06/29/17 08:56	07/03/17 13:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		06/29/17 08:56	07/03/17 13:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		06/29/17 08:56	07/03/17 13:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		06/29/17 08:56	07/03/17 13:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		06/29/17 08:56	07/03/17 13:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		06/29/17 08:56	07/03/17 13:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		06/29/17 08:56	07/03/17 13:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		06/29/17 08:56	07/03/17 13:14	5

Lab Sample ID: LCS 400-358784/2-A
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 358784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0533		mg/L		107	80 - 120
Arsenic	0.0500	0.0540		mg/L		108	80 - 120
Barium	0.0500	0.0513		mg/L		103	80 - 120
Beryllium	0.0500	0.0504		mg/L		101	80 - 120
Boron	0.100	0.0983		mg/L		98	80 - 120
Cadmium	0.0500	0.0542		mg/L		108	80 - 120
Calcium	5.00	4.94		mg/L		99	80 - 120
Chromium	0.0500	0.0523		mg/L		105	80 - 120
Cobalt	0.0500	0.0533		mg/L		107	80 - 120
Lead	0.0500	0.0537		mg/L		107	80 - 120
Lithium	0.0500	0.0536		mg/L		107	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Selenium	0.0500	0.0533		mg/L		107	80 - 120
Thallium	0.0100	0.0109		mg/L		109	80 - 120

Lab Sample ID: 400-139600-G-5-B MS ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 358784

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0560		mg/L		112	75 - 125
Arsenic	0.00055	J	0.0500	0.0560		mg/L		111	75 - 125
Barium	0.077		0.0500	0.130		mg/L		107	75 - 125
Beryllium	<0.00034		0.0500	0.0519		mg/L		104	75 - 125
Boron	<0.021	F1	0.100	0.126	F1	mg/L		126	75 - 125
Cadmium	<0.00034		0.0500	0.0547		mg/L		109	75 - 125
Calcium	21		5.00	25.9	4	mg/L		102	75 - 125
Chromium	<0.0011		0.0500	0.0538		mg/L		108	75 - 125
Cobalt	<0.00040		0.0500	0.0549		mg/L		110	75 - 125
Lead	<0.00035		0.0500	0.0545		mg/L		109	75 - 125
Lithium	0.0076		0.0500	0.0565		mg/L		98	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

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

Lab Sample ID: 400-139600-G-5-B MS ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 358784

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.0010	J	0.100	0.106		mg/L		105	75 - 125
Selenium	0.00070	J	0.0500	0.0550		mg/L		109	75 - 125
Thallium	<0.000085		0.0100	0.0110		mg/L		110	75 - 125

Lab Sample ID: 400-139600-G-5-C MSD ^5
Matrix: Water
Analysis Batch: 359310

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 358784

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0560		mg/L		112	75 - 125	0	20
Arsenic	0.00055	J	0.0500	0.0566		mg/L		112	75 - 125	1	20
Barium	0.077		0.0500	0.133		mg/L		112	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125	1	20
Boron	<0.021	F1	0.100	0.120		mg/L		120	75 - 125	5	20
Cadmium	<0.00034		0.0500	0.0562		mg/L		112	75 - 125	3	20
Calcium	21		5.00	26.3	4	mg/L		111	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0541		mg/L		108	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0556		mg/L		111	75 - 125	1	20
Lead	<0.00035		0.0500	0.0546		mg/L		109	75 - 125	0	20
Lithium	0.0076		0.0500	0.0562		mg/L		97	75 - 125	0	20
Molybdenum	0.0010	J	0.100	0.107		mg/L		106	75 - 125	1	20
Selenium	0.00070	J	0.0500	0.0559		mg/L		110	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0112		mg/L		112	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-358641/14-A
Matrix: Water
Analysis Batch: 358907

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 09:13	06/29/17 14:21	1

Lab Sample ID: LCS 400-358641/15-A
Matrix: Water
Analysis Batch: 358907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-139638-1 MS
Matrix: Water
Analysis Batch: 358907

Client Sample ID: ARGWA-3
Prep Type: Total/NA
Prep Batch: 358641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00206		mg/L		102	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

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

Lab Sample ID: 400-139638-1 MSD
Matrix: Water
Analysis Batch: 358907

Client Sample ID: ARGWA-3
Prep Type: Total/NA
Prep Batch: 358641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00209		mg/L		104	80 - 120	1	20

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

Lab Sample ID: MB 400-358221/1
Matrix: Water
Analysis Batch: 358221

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	<3.4		5.0	3.4	mg/L			06/24/17 12:50	1

Lab Sample ID: LCS 400-358221/2
Matrix: Water
Analysis Batch: 358221

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	293	286		mg/L		98	78 - 122

Lab Sample ID: 400-139638-1 DU
Matrix: Water
Analysis Batch: 358221

Client Sample ID: ARGWA-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	52		52.0		mg/L		0	5

Lab Sample ID: MB 400-358279/1
Matrix: Water
Analysis Batch: 358279

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	<3.4		5.0	3.4	mg/L			06/25/17 13:21	1

Lab Sample ID: LCS 400-358279/2
Matrix: Water
Analysis Batch: 358279

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	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-139648-A-10 DU
Matrix: Water
Analysis Batch: 358279

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		118		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright Site: POND # 3		Lab P/M: Whitmire, Chyanne R E-Mail: chyanne.whitmire@testamericainc.com Carrier Tracking No(s): TA - ATC Pick up		COC No: 400-66089-24993.2 Page: 2 of 3 Job #:					
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SOW#:		Analysis Requested  400-139638 COC							
Sample Identification ARGWA-3 ARGWA-14 ARGWA-5		Sample Date 6/20/17 6/20/17 6/20/17	Sample Time 1520 1630 1745	Sample Type (C=comp, G=grab) G G G	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air) Water Water Water Water Water Water Water Water Water Water Water	Field Filtered Sample (Yes or No) N N N	Preservation Code: 1 1 1	Total Number of Containers 3 3 3	Special Instructions/Note:
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Method of Shipment:							
Relinquished by: <i>[Signature]</i>		Date: 6/21/2017		Received by: <i>[Signature]</i>					
Relinquished by: <i>[Signature]</i>		Date/Time: 11:00		Received by: <i>[Signature]</i>					
Relinquished by: <i>[Signature]</i>		Date/Time: 6/22/17 09:02		Received by: <i>[Signature]</i>					
Relinquished by: <i>[Signature]</i>		Date/Time:		Received by:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 39°C							



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139638-1

SDG Number: Pond #3

Login Number: 139638

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C IR-2
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.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-1
 SDG: Pond #3

Laboratory: 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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139638-2

TestAmerica Sample Delivery Group: Pond #3

Client Project/Site: CCR Plant Arkwright - Ash Ponds

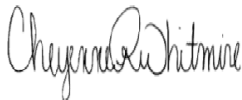
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

7/20/2017 1:32:02 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
SDG: Pond #3

Job ID: 400-139638-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-139638-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-315310. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. ARGWA-3 (400-139638-1), ARGWA-14 (400-139638-2) and ARGWA-5 (400-139638-3)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-315196. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. ARGWA-3 (400-139638-1), ARGWA-14 (400-139638-2) and ARGWA-5 (400-139638-3)



Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
SDG: Pond #3

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

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
SDG: Pond #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139638-1	ARGWA-3	Water	06/20/17 15:20	06/22/17 09:22
400-139638-2	ARGWA-14	Water	06/20/17 16:30	06/22/17 09:22
400-139638-3	ARGWA-5	Water	06/20/17 17:45	06/22/17 09:22

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Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-139638-1

Date Collected: 06/20/17 15:20

Matrix: Water

Date Received: 06/22/17 09:22

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0359	U	0.0389	0.0391	1.00	0.0587	pCi/L	06/26/17 08:54	07/18/17 06:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					06/26/17 08:54	07/18/17 06:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.229	U	0.253	0.254	1.00	0.415	pCi/L	06/26/17 09:17	07/07/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					06/26/17 09:17	07/07/17 14:30	1
Y Carrier	92.0		40 - 110					06/26/17 09:17	07/07/17 14:30	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	0.265	U	0.256	0.257	5.00	0.415	pCi/L		07/19/17 09:48	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-139638-2

Date Collected: 06/20/17 16:30

Matrix: Water

Date Received: 06/22/17 09:22

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199		0.0931	0.0948	1.00	0.113	pCi/L	06/26/17 08:54	07/18/17 06:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/26/17 08:54	07/18/17 06:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.776		0.245	0.255	1.00	0.314	pCi/L	06/26/17 09:17	07/07/17 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/26/17 09:17	07/07/17 14:31	1
Y Carrier	92.0		40 - 110					06/26/17 09:17	07/07/17 14:31	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	0.974		0.262	0.272	5.00	0.314	pCi/L		07/19/17 09:48	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-139638-3

Date Collected: 06/20/17 17:45

Matrix: Water

Date Received: 06/22/17 09:22

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0527	U	0.0490	0.0493	1.00	0.0693	pCi/L	06/26/17 08:54	07/18/17 06:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/26/17 08:54	07/18/17 06:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.450		0.272	0.275	1.00	0.418	pCi/L	06/26/17 09:17	07/07/17 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/26/17 09:17	07/07/17 14:31	1
Y Carrier	89.3		40 - 110					06/26/17 09:17	07/07/17 14:31	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	0.503		0.276	0.279	5.00	0.418	pCi/L		07/19/17 09:48	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
SDG: Pond #3

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)

Lab Chronicle

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Client Sample ID: ARGWA-3

Date Collected: 06/20/17 15:20

Date Received: 06/22/17 09:22

Lab Sample ID: 400-139638-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315196	06/26/17 08:54	LDE	TAL SL
Total/NA	Analysis	9315		1	317955	07/18/17 06:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315310	06/26/17 09:17	LDE	TAL SL
Total/NA	Analysis	9320		1	316539	07/07/17 14:30	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318131	07/19/17 09:48	RTM	TAL SL

Client Sample ID: ARGWA-14

Date Collected: 06/20/17 16:30

Date Received: 06/22/17 09:22

Lab Sample ID: 400-139638-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315196	06/26/17 08:54	LDE	TAL SL
Total/NA	Analysis	9315		1	317955	07/18/17 06:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315310	06/26/17 09:17	LDE	TAL SL
Total/NA	Analysis	9320		1	316539	07/07/17 14:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318131	07/19/17 09:48	RTM	TAL SL

Client Sample ID: ARGWA-5

Date Collected: 06/20/17 17:45

Date Received: 06/22/17 09:22

Lab Sample ID: 400-139638-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315196	06/26/17 08:54	LDE	TAL SL
Total/NA	Analysis	9315		1	317955	07/18/17 06:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315310	06/26/17 09:17	LDE	TAL SL
Total/NA	Analysis	9320		1	316539	07/07/17 14:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318131	07/19/17 09:48	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Rad

Prep Batch: 315196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total/NA	Water	PrecSep-21	
400-139638-2	ARGWA-14	Total/NA	Water	PrecSep-21	
400-139638-3	ARGWA-5	Total/NA	Water	PrecSep-21	
MB 160-315196/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-315196/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-315196/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 315310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139638-1	ARGWA-3	Total/NA	Water	PrecSep_0	
400-139638-2	ARGWA-14	Total/NA	Water	PrecSep_0	
400-139638-3	ARGWA-5	Total/NA	Water	PrecSep_0	
MB 160-315310/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-315310/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-315310/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	



QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-315196/1-A
Matrix: Water
Analysis Batch: 317955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315196

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01625	U	0.0355	0.0355	1.00	0.0671	pCi/L	06/26/17 08:54	07/18/17 06:32	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/26/17 08:54	07/18/17 06:32	1

Lab Sample ID: LCS 160-315196/2-A
Matrix: Water
Analysis Batch: 317955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315196

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	10.62		1.09	1.00	0.0692	pCi/L	93	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	100		40 - 110						

Lab Sample ID: LCSD 160-315196/3-A
Matrix: Water
Analysis Batch: 317955

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 315196

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	8.897		0.936	1.00	0.0663	pCi/L	78	68 - 137	0.85	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	98.5		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-315310/1-A
Matrix: Water
Analysis Batch: 316539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315310

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2225	U	0.202	0.203	1.00	0.325	pCi/L	06/26/17 09:17	07/07/17 14:29	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/26/17 09:17	07/07/17 14:29	1
Y Carrier	88.2		40 - 110					06/26/17 09:17	07/07/17 14:29	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

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

Lab Sample ID: LCS 160-315310/2-A
Matrix: Water
Analysis Batch: 316539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315310

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.2	13.58		1.45	1.00	0.309	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	90.8		40 - 110

Lab Sample ID: LCSD 160-315310/3-A
Matrix: Water
Analysis Batch: 316539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 315310

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.2	14.06		1.49	1.00	0.326	pCi/L	106	56 - 140	0.16	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	98.5		40 - 110
Y Carrier	92.7		40 - 110

Chain of Custody Record

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright Site: POND # 3		Lab PM: Whitmire, Chyanne R E-Mail: chyanne.whitmire@testamericainc.com Carrier Tracking No(s): TA - ATC Pick up		COC No: 400-66089-24993.2 Page: 2 of 3 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SOW#:		Analysis Requested			
Field Filtered Sample (Yes or No)		Field Filtered Sample (Yes or No)		Total Number of Containers	
Sample Identification AR6WA-3 ARGWA-14 ARGWA-5		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air) Water Water Water Water Water Water Water Water Water Water		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date 6/20/17 6/20/17 6/20/17		Sample Time 1520 1630 1745		Special Instructions/Note: 3 3 3	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by: [Signature] Date: 6/21/2017 Time: 11:00 Company: ACC		Received by: [Signature] Date/Time: 6/21/17 11:00 Company: 714			
Relinquished by: [Signature] Date/Time: 6/21/17 16:06 Company: 714		Received by: [Signature] Date/Time: 6/22/17 09:02 Company: TA RW			
Relinquished by: [Signature] Date/Time: 6/21/17		Received by: [Signature] Date/Time: 6/22/17 09:02 Company: TA RW			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139638-2

SDG Number: Pond #3

Login Number: 139638

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C IR-2
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.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
 SDG: Pond #3

Laboratory: 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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

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

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139638-2
SDG: Pond #3

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
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

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

TestAmerica Pensacola

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139715-1

Client Project/Site: CCR Plant Arkwright - Ash Ponds

For:

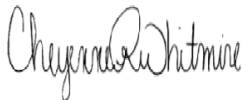
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/20/2017 11:26:51 AM

Cheyenne Whitmire, Project Manager II

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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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Job ID: 400-139715-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-139715-1**

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-139715-2), ARGWC-8 (400-139715-3) and ARGWC-16 (400-139715-5), ARGWC-18 (400-139715-7). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The serial dilution performed for the following sample associated with batch 359473 was outside control limits for Selenium: (400-139715-B-2-B SD)

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range for Boron: ARGWC-18 (400-139715-7). Elevated reporting limits (RLs) are provided.



Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWA-12

Lab Sample ID: 400-139715-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	10		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.074		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00025	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-13

Lab Sample ID: 400-139715-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	540		20	14	mg/L	20		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.13		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	110		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0052		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.019		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	880		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-8

Lab Sample ID: 400-139715-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.8		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.14	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	73		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.3		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	51		0.25	0.13	mg/L	5		6020	Total Recoverable
Molybdenum	0.038		0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	300		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15

Lab Sample ID: 400-139715-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	4.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-15 (Continued)

Lab Sample ID: 400-139715-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-139715-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	130		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.054		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.045	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	22		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0017	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00075	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-17

Lab Sample ID: 400-139715-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	75		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.027		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-18

Lab Sample ID: 400-139715-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.096	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	200		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	49		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0018	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0037	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Boron - DL	2.2		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	430		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1-6-21-17

Lab Sample ID: 400-139715-8

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: FB-1-6-21-17

Lab Sample ID: 400-139715-9

No Detections.

Client Sample ID: ARGWC-7

Lab Sample ID: 400-139715-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	49		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.11		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0036		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-10

Lab Sample ID: 400-139715-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0047		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-9

Lab Sample ID: 400-139715-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.99	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.011		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-139715-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	49		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.099		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0033		0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 400-139715-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139715-1	ARGWA-12	Water	06/21/17 10:50	06/23/17 08:37
400-139715-2	ARGWA-13	Water	06/21/17 10:10	06/23/17 08:37
400-139715-3	ARGWC-8	Water	06/21/17 16:00	06/23/17 08:37
400-139715-4	ARGWC-15	Water	06/21/17 11:30	06/23/17 08:37
400-139715-5	ARGWC-16	Water	06/21/17 13:55	06/23/17 08:37
400-139715-6	ARGWC-17	Water	06/21/17 16:00	06/23/17 08:37
400-139715-7	ARGWC-18	Water	06/21/17 17:05	06/23/17 08:37
400-139715-8	EB-1-6-21-17	Water	06/21/17 10:25	06/23/17 08:37
400-139715-9	FB-1-6-21-17	Water	06/21/17 16:50	06/23/17 08:37
400-139715-10	ARGWC-7	Water	06/22/17 09:25	06/23/17 08:37
400-139715-11	ARGWC-10	Water	06/22/17 10:40	06/23/17 08:37
400-139715-12	ARGWC-9	Water	06/22/17 12:00	06/23/17 08:37
400-139715-13	DUP-1	Water	06/22/17 00:00	06/23/17 08:37

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWA-12

Lab Sample ID: 400-139715-1

Date Collected: 06/21/17 10:50

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.89	mg/L			06/27/17 19:15	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 19:15	1
Sulfate	10		1.0	0.70	mg/L			06/27/17 19:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 12:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 12:02	5
Barium	0.074		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 12:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:02	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 12:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:02	5
Calcium	12		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 12:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 12:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 12:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 12:02	5
Lithium	0.0041	J	0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 12:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 12:02	5
Selenium	0.00025	J	0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 12:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 12:02	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		06/28/17 12:48	07/05/17 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWA-13

Date Collected: 06/21/17 10:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.89	mg/L			06/27/17 19:38	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 19:38	1
Sulfate	540		20	14	mg/L			06/28/17 17:22	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 12:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 12:07	5
Barium	0.034		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 12:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:07	5
Boron	0.13		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 12:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:07	5
Calcium	110		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 12:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 12:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 12:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 12:07	5
Lithium	0.0052		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 12:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 12:07	5
Selenium	0.019		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 12:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 12:07	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		06/28/17 12:48	07/05/17 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	880		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-8

Date Collected: 06/21/17 16:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		1.0	0.89	mg/L			06/27/17 20:01	1
Fluoride	0.14	J	0.20	0.082	mg/L			06/27/17 20:01	1
Sulfate	73		5.0	3.5	mg/L			06/28/17 18:30	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 12:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 12:47	5
Barium	0.049		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 12:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:47	5
Boron	1.3		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 12:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:47	5
Calcium	51		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 12:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 12:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 12:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 12:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 12:47	5
Molybdenum	0.038		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 12:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 12:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 12:47	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		06/28/17 12:48	07/05/17 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-15

Lab Sample ID: 400-139715-4

Date Collected: 06/21/17 11:30

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			06/27/17 20:24	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 20:24	1
Sulfate	4.6		1.0	0.70	mg/L			06/27/17 20:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 12:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 12:52	5
Barium	0.028		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 12:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:52	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 12:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:52	5
Calcium	18		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 12:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 12:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 12:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 12:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 12:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 12:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 12:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 12:52	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		06/28/17 12:48	07/05/17 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-16

Lab Sample ID: 400-139715-5

Date Collected: 06/21/17 13:55

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		1.0	0.89	mg/L			06/27/17 20:47	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 20:47	1
Sulfate	130		5.0	3.5	mg/L			06/28/17 18:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 12:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 12:56	5
Barium	0.054		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 12:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:56	5
Boron	0.045	J	0.050	0.021	mg/L		07/01/17 13:38	07/05/17 12:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 12:56	5
Calcium	22		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 12:56	5
Chromium	0.0017	J	0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 12:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 12:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 12:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 12:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 12:56	5
Selenium	0.00075	J	0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 12:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 12:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J	0.00020	0.000070	mg/L		06/28/17 12:48	07/05/17 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-17

Lab Sample ID: 400-139715-6

Date Collected: 06/21/17 16:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.89	mg/L			06/28/17 23:27	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 23:27	1
Sulfate	75		5.0	3.5	mg/L			06/30/17 12:40	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:01	5
Barium	0.043		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:01	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:01	5
Calcium	15		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:01	5
Cobalt	0.027		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:01	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		06/28/17 12:48	07/05/17 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-18

Lab Sample ID: 400-139715-7

Date Collected: 06/21/17 17:05

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.2		1.0	0.89	mg/L			06/28/17 23:50	1
Fluoride	0.096	J	0.20	0.082	mg/L			06/28/17 23:50	1
Sulfate	200		5.0	3.5	mg/L			06/30/17 13:49	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:05	5
Barium	0.036		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:05	5
Calcium	49		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:05	5
Cobalt	0.0018	J	0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:05	5
Lithium	0.0037	J	0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.2		0.25	0.11	mg/L		07/01/17 13:38	07/05/17 13:59	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		06/28/17 12:48	07/05/17 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: EB-1-6-21-17

Lab Sample ID: 400-139715-8

Date Collected: 06/21/17 10:25

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 00:13	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 00:13	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 00:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:19	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:19	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:19	5
Calcium	<0.13		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:19	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:19	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		06/28/17 12:48	07/05/17 13:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: FB-1-6-21-17

Lab Sample ID: 400-139715-9

Date Collected: 06/21/17 16:50

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/29/17 00:36	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 00:36	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 00:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:14	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:14	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:14	5
Calcium	<0.13		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:14	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		06/28/17 12:48	07/05/17 13:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/17 13:09	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-7

Lab Sample ID: 400-139715-10

Date Collected: 06/22/17 09:25

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			06/29/17 00:58	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 00:58	1
Sulfate	49		1.0	0.70	mg/L			06/29/17 00:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:23	5
Barium	0.038		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:23	5
Boron	0.11		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:23	5
Calcium	13		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:23	5
Chromium	0.0036		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:23	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		06/28/17 12:48	07/05/17 13:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			06/27/17 16:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-10

Date Collected: 06/22/17 10:40

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.89	mg/L			06/29/17 01:21	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 01:21	1
Sulfate	<0.70		1.0	0.70	mg/L			06/29/17 01:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:46	5
Barium	0.035		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:46	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:46	5
Calcium	7.5		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:46	5
Chromium	0.0047		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:46	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		06/28/17 12:48	07/05/17 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			06/27/17 16:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-9

Lab Sample ID: 400-139715-12

Date Collected: 06/22/17 12:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.89	mg/L			06/29/17 01:44	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 01:44	1
Sulfate	0.99	J	1.0	0.70	mg/L			06/29/17 01:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:50	5
Barium	0.055		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:50	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:50	5
Calcium	5.8		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:50	5
Chromium	0.011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:50	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		06/28/17 12:48	07/05/17 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			06/27/17 16:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: DUP-1

Date Collected: 06/22/17 00:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			06/29/17 02:07	1
Fluoride	<0.082		0.20	0.082	mg/L			06/29/17 02:07	1
Sulfate	49		1.0	0.70	mg/L			06/29/17 02:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 13:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 13:55	5
Barium	0.037		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 13:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:55	5
Boron	0.099		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 13:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 13:55	5
Calcium	12		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 13:55	5
Chromium	0.0033		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 13:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 13:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 13:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 13:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 13:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 13:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 13:55	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		06/28/17 12:48	07/05/17 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			06/26/17 13:09	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Qualifiers

HPLC/IC

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

Metals

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

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWA-12

Date Collected: 06/21/17 10:50

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 19:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 12:02	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 12:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWA-13

Date Collected: 06/21/17 10:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 19:38	TAJ	TAL PEN
Total/NA	Analysis	300.0		20	358786	06/28/17 17:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 12:07	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWC-8

Date Collected: 06/21/17 16:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 20:01	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	358786	06/28/17 18:30	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 12:47	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 12:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWC-15

Date Collected: 06/21/17 11:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 20:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 12:52	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-15

Lab Sample ID: 400-139715-4

Date Collected: 06/21/17 11:30

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	359443	07/05/17 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWC-16

Lab Sample ID: 400-139715-5

Date Collected: 06/21/17 13:55

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358690	06/27/17 20:47	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	358786	06/28/17 18:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 12:56	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWC-17

Lab Sample ID: 400-139715-6

Date Collected: 06/21/17 16:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/28/17 23:27	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	359035	06/30/17 12:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:01	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWC-18

Lab Sample ID: 400-139715-7

Date Collected: 06/21/17 17:05

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/28/17 23:50	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	359035	06/30/17 13:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:05	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020	DL	25	359473	07/05/17 13:59	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:14	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-18

Lab Sample ID: 400-139715-7

Date Collected: 06/21/17 17:05

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: EB-1-6-21-17

Lab Sample ID: 400-139715-8

Date Collected: 06/21/17 10:25

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/29/17 00:13	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:19	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: FB-1-6-21-17

Lab Sample ID: 400-139715-9

Date Collected: 06/21/17 16:50

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/29/17 00:36	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:14	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Client Sample ID: ARGWC-7

Lab Sample ID: 400-139715-10

Date Collected: 06/22/17 09:25

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/29/17 00:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:23	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358574	06/27/17 16:35	TET	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Client Sample ID: ARGWC-10

Lab Sample ID: 400-139715-11

Date Collected: 06/22/17 10:40

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/29/17 01:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:46	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358574	06/27/17 16:35	TET	TAL PEN

Client Sample ID: ARGWC-9

Lab Sample ID: 400-139715-12

Date Collected: 06/22/17 12:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/29/17 01:44	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:50	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358574	06/27/17 16:35	TET	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-139715-13

Date Collected: 06/22/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	358786	06/29/17 02:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			359131	07/01/17 13:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	359473	07/05/17 13:55	DRE	TAL PEN
Total/NA	Prep	7470A			358711	06/28/17 12:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	359443	07/05/17 13:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	358313	06/26/17 13:09	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

HPLC/IC

Analysis Batch: 358690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total/NA	Water	300.0	
400-139715-2	ARGWA-13	Total/NA	Water	300.0	
400-139715-3	ARGWC-8	Total/NA	Water	300.0	
400-139715-4	ARGWC-15	Total/NA	Water	300.0	
400-139715-5	ARGWC-16	Total/NA	Water	300.0	
MB 400-358690/6	Method Blank	Total/NA	Water	300.0	
LCS 400-358690/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358690/8	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139714-A-9 MS	Matrix Spike	Total/NA	Water	300.0	
400-139714-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 358786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-2	ARGWA-13	Total/NA	Water	300.0	
400-139715-3	ARGWC-8	Total/NA	Water	300.0	
400-139715-5	ARGWC-16	Total/NA	Water	300.0	
400-139715-6	ARGWC-17	Total/NA	Water	300.0	
400-139715-7	ARGWC-18	Total/NA	Water	300.0	
400-139715-8	EB-1-6-21-17	Total/NA	Water	300.0	
400-139715-9	FB-1-6-21-17	Total/NA	Water	300.0	
400-139715-10	ARGWC-7	Total/NA	Water	300.0	
400-139715-11	ARGWC-10	Total/NA	Water	300.0	
400-139715-12	ARGWC-9	Total/NA	Water	300.0	
400-139715-13	DUP-1	Total/NA	Water	300.0	
MB 400-358786/4	Method Blank	Total/NA	Water	300.0	
LCS 400-358786/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-358786/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139693-A-11 MS	Matrix Spike	Total/NA	Water	300.0	
400-139693-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 359035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-6	ARGWC-17	Total/NA	Water	300.0	
400-139715-7	ARGWC-18	Total/NA	Water	300.0	
MB 400-359035/4	Method Blank	Total/NA	Water	300.0	
LCS 400-359035/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-359035/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-139715-6 MS	ARGWC-17	Total/NA	Water	300.0	
400-139715-6 MSD	ARGWC-17	Total/NA	Water	300.0	

Metals

Prep Batch: 358711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total/NA	Water	7470A	
400-139715-2	ARGWA-13	Total/NA	Water	7470A	
400-139715-3	ARGWC-8	Total/NA	Water	7470A	
400-139715-4	ARGWC-15	Total/NA	Water	7470A	
400-139715-5	ARGWC-16	Total/NA	Water	7470A	
400-139715-6	ARGWC-17	Total/NA	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Metals (Continued)

Prep Batch: 358711 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-7	ARGWC-18	Total/NA	Water	7470A	
400-139715-8	EB-1-6-21-17	Total/NA	Water	7470A	
400-139715-9	FB-1-6-21-17	Total/NA	Water	7470A	
400-139715-10	ARGWC-7	Total/NA	Water	7470A	
400-139715-11	ARGWC-10	Total/NA	Water	7470A	
400-139715-12	ARGWC-9	Total/NA	Water	7470A	
400-139715-13	DUP-1	Total/NA	Water	7470A	
MB 400-358711/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-358711/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-139715-1 MS	ARGWA-12	Total/NA	Water	7470A	
400-139715-1 MSD	ARGWA-12	Total/NA	Water	7470A	

Prep Batch: 359131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total Recoverable	Water	3005A	
400-139715-2	ARGWA-13	Total Recoverable	Water	3005A	
400-139715-3	ARGWC-8	Total Recoverable	Water	3005A	
400-139715-4	ARGWC-15	Total Recoverable	Water	3005A	
400-139715-5	ARGWC-16	Total Recoverable	Water	3005A	
400-139715-6	ARGWC-17	Total Recoverable	Water	3005A	
400-139715-7 - DL	ARGWC-18	Total Recoverable	Water	3005A	
400-139715-7	ARGWC-18	Total Recoverable	Water	3005A	
400-139715-8	EB-1-6-21-17	Total Recoverable	Water	3005A	
400-139715-9	FB-1-6-21-17	Total Recoverable	Water	3005A	
400-139715-10	ARGWC-7	Total Recoverable	Water	3005A	
400-139715-11	ARGWC-10	Total Recoverable	Water	3005A	
400-139715-12	ARGWC-9	Total Recoverable	Water	3005A	
400-139715-13	DUP-1	Total Recoverable	Water	3005A	
MB 400-359131/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-359131/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-139715-2 MS	ARGWA-13	Total Recoverable	Water	3005A	
400-139715-2 MSD	ARGWA-13	Total Recoverable	Water	3005A	

Analysis Batch: 359443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total/NA	Water	7470A	358711
400-139715-2	ARGWA-13	Total/NA	Water	7470A	358711
400-139715-3	ARGWC-8	Total/NA	Water	7470A	358711
400-139715-4	ARGWC-15	Total/NA	Water	7470A	358711
400-139715-5	ARGWC-16	Total/NA	Water	7470A	358711
400-139715-6	ARGWC-17	Total/NA	Water	7470A	358711
400-139715-7	ARGWC-18	Total/NA	Water	7470A	358711
400-139715-8	EB-1-6-21-17	Total/NA	Water	7470A	358711
400-139715-9	FB-1-6-21-17	Total/NA	Water	7470A	358711
400-139715-10	ARGWC-7	Total/NA	Water	7470A	358711
400-139715-11	ARGWC-10	Total/NA	Water	7470A	358711
400-139715-12	ARGWC-9	Total/NA	Water	7470A	358711
400-139715-13	DUP-1	Total/NA	Water	7470A	358711
MB 400-358711/14-A	Method Blank	Total/NA	Water	7470A	358711
LCS 400-358711/15-A	Lab Control Sample	Total/NA	Water	7470A	358711
400-139715-1 MS	ARGWA-12	Total/NA	Water	7470A	358711

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Metals (Continued)

Analysis Batch: 359443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1 MSD	ARGWA-12	Total/NA	Water	7470A	358711

Analysis Batch: 359473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total Recoverable	Water	6020	359131
400-139715-2	ARGWA-13	Total Recoverable	Water	6020	359131
400-139715-3	ARGWC-8	Total Recoverable	Water	6020	359131
400-139715-4	ARGWC-15	Total Recoverable	Water	6020	359131
400-139715-5	ARGWC-16	Total Recoverable	Water	6020	359131
400-139715-6	ARGWC-17	Total Recoverable	Water	6020	359131
400-139715-7	ARGWC-18	Total Recoverable	Water	6020	359131
400-139715-7 - DL	ARGWC-18	Total Recoverable	Water	6020	359131
400-139715-8	EB-1-6-21-17	Total Recoverable	Water	6020	359131
400-139715-9	FB-1-6-21-17	Total Recoverable	Water	6020	359131
400-139715-10	ARGWC-7	Total Recoverable	Water	6020	359131
400-139715-11	ARGWC-10	Total Recoverable	Water	6020	359131
400-139715-12	ARGWC-9	Total Recoverable	Water	6020	359131
400-139715-13	DUP-1	Total Recoverable	Water	6020	359131
MB 400-359131/1-A ^5	Method Blank	Total Recoverable	Water	6020	359131
LCS 400-359131/2-A	Lab Control Sample	Total Recoverable	Water	6020	359131
400-139715-2 MS	ARGWA-13	Total Recoverable	Water	6020	359131
400-139715-2 MSD	ARGWA-13	Total Recoverable	Water	6020	359131

General Chemistry

Analysis Batch: 358313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total/NA	Water	SM 2540C	
400-139715-2	ARGWA-13	Total/NA	Water	SM 2540C	
400-139715-3	ARGWC-8	Total/NA	Water	SM 2540C	
400-139715-4	ARGWC-15	Total/NA	Water	SM 2540C	
400-139715-5	ARGWC-16	Total/NA	Water	SM 2540C	
400-139715-6	ARGWC-17	Total/NA	Water	SM 2540C	
400-139715-7	ARGWC-18	Total/NA	Water	SM 2540C	
400-139715-8	EB-1-6-21-17	Total/NA	Water	SM 2540C	
400-139715-9	FB-1-6-21-17	Total/NA	Water	SM 2540C	
400-139715-13	DUP-1	Total/NA	Water	SM 2540C	
MB 400-358313/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358313/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139714-A-7 DU	Duplicate	Total/NA	Water	SM 2540C	
400-139714-A-9 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 358574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-10	ARGWC-7	Total/NA	Water	SM 2540C	
400-139715-11	ARGWC-10	Total/NA	Water	SM 2540C	
400-139715-12	ARGWC-9	Total/NA	Water	SM 2540C	
MB 400-358574/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-358574/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-139715-10 DU	ARGWC-7	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

General Chemistry (Continued)

Analysis Batch: 358574 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-11 DU	ARGWC-10	Total/NA	Water	SM 2540C	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-358690/6
Matrix: Water
Analysis Batch: 358690

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/27/17 14:19	1
Fluoride	<0.082		0.20	0.082	mg/L			06/27/17 14:19	1
Sulfate	<0.70		1.0	0.70	mg/L			06/27/17 14:19	1

Lab Sample ID: LCS 400-358690/7
Matrix: Water
Analysis Batch: 358690

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-358690/8
Matrix: Water
Analysis Batch: 358690

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-139714-A-9 MS
Matrix: Water
Analysis Batch: 358690

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.5		10.0	13.2		mg/L		96	80 - 120
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: 400-139714-A-9 MSD
Matrix: Water
Analysis Batch: 358690

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.5		10.0	13.2		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	0	20
Sulfate	<0.70		10.0	10.8		mg/L		108	80 - 120	1	20

Lab Sample ID: MB 400-358786/4
Matrix: Water
Analysis Batch: 358786

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/28/17 14:18	1
Fluoride	<0.082		0.20	0.082	mg/L			06/28/17 14:18	1
Sulfate	<0.70		1.0	0.70	mg/L			06/28/17 14:18	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-358786/5
Matrix: Water
Analysis Batch: 358786

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

Lab Sample ID: LCSD 400-358786/6
Matrix: Water
Analysis Batch: 358786

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

Lab Sample ID: 400-139693-A-11 MS
Matrix: Water
Analysis Batch: 358786

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	18		100	117		mg/L		99	80 - 120
Fluoride	<0.82		100	105		mg/L		105	80 - 120
Sulfate	83		100	190		mg/L		106	80 - 120

Lab Sample ID: 400-139693-A-11 MSD
Matrix: Water
Analysis Batch: 358786

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18		100	117		mg/L		99	80 - 120	0	20
Fluoride	<0.82		100	105		mg/L		105	80 - 120	0	20
Sulfate	83		100	190		mg/L		107	80 - 120	0	20

Lab Sample ID: MB 400-359035/4
Matrix: Water
Analysis Batch: 359035

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			06/30/17 11:32	1
Fluoride	<0.082		0.20	0.082	mg/L			06/30/17 11:32	1
Sulfate	<0.70		1.0	0.70	mg/L			06/30/17 11:32	1

Lab Sample ID: LCS 400-359035/5
Matrix: Water
Analysis Batch: 359035

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-359035/6

Matrix: Water

Analysis Batch: 359035

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

Lab Sample ID: 400-139715-6 MS

Matrix: Water

Analysis Batch: 359035

Client Sample ID: ARGWC-17

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.5		50.0	52.8		mg/L		106	80 - 120		
Fluoride	<0.41		50.0	52.7		mg/L		105	80 - 120		
Sulfate	75		50.0	126		mg/L		102	80 - 120		

Lab Sample ID: 400-139715-6 MSD

Matrix: Water

Analysis Batch: 359035

Client Sample ID: ARGWC-17

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.5		50.0	52.9		mg/L		106	80 - 120	0	20
Fluoride	<0.41		50.0	52.5		mg/L		105	80 - 120	0	20
Sulfate	75		50.0	126		mg/L		102	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-359131/1-A ^5

Matrix: Water

Analysis Batch: 359473

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 359131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/01/17 13:38	07/05/17 11:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/01/17 13:38	07/05/17 11:49	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/01/17 13:38	07/05/17 11:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 11:49	5
Boron	<0.021		0.050	0.021	mg/L		07/01/17 13:38	07/05/17 11:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/01/17 13:38	07/05/17 11:49	5
Calcium	<0.13		0.25	0.13	mg/L		07/01/17 13:38	07/05/17 11:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/01/17 13:38	07/05/17 11:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/01/17 13:38	07/05/17 11:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/01/17 13:38	07/05/17 11:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/01/17 13:38	07/05/17 11:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/01/17 13:38	07/05/17 11:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/01/17 13:38	07/05/17 11:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/01/17 13:38	07/05/17 11:49	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

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

Lab Sample ID: LCS 400-359131/2-A
Matrix: Water
Analysis Batch: 359473

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0553		mg/L		111	80 - 120
Arsenic	0.0500	0.0540		mg/L		108	80 - 120
Barium	0.0500	0.0549		mg/L		110	80 - 120
Beryllium	0.0500	0.0531		mg/L		106	80 - 120
Boron	0.100	0.0922		mg/L		92	80 - 120
Cadmium	0.0500	0.0529		mg/L		106	80 - 120
Calcium	5.00	4.95		mg/L		99	80 - 120
Chromium	0.0500	0.0526		mg/L		105	80 - 120
Cobalt	0.0500	0.0551		mg/L		110	80 - 120
Lead	0.0500	0.0523		mg/L		105	80 - 120
Lithium	0.0500	0.0555		mg/L		111	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Selenium	0.0500	0.0527		mg/L		105	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

Lab Sample ID: 400-139715-2 MS
Matrix: Water
Analysis Batch: 359473

Client Sample ID: ARGWA-13
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0571		mg/L		114	75 - 125
Arsenic	<0.00046		0.0500	0.0559		mg/L		112	75 - 125
Barium	0.034		0.0500	0.0887		mg/L		109	75 - 125
Beryllium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Boron	0.13		0.100	0.237		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125
Calcium	110		5.00	119	4	mg/L		142	75 - 125
Chromium	<0.0011		0.0500	0.0537		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0559		mg/L		112	75 - 125
Lead	<0.00035		0.0500	0.0526		mg/L		105	75 - 125
Lithium	0.0052		0.0500	0.0527		mg/L		95	75 - 125
Molybdenum	<0.00085		0.100	0.107		mg/L		107	75 - 125
Selenium	0.019		0.0500	0.0747		mg/L		111	75 - 125
Thallium	<0.00085		0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-139715-2 MSD
Matrix: Water
Analysis Batch: 359473

Client Sample ID: ARGWA-13
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0552		mg/L		110	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0542		mg/L		108	75 - 125	3	20
Barium	0.034		0.0500	0.0871		mg/L		106	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125	0	20
Boron	0.13		0.100	0.234		mg/L		105	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125	2	20
Calcium	110		5.00	116	4	mg/L		80	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0529		mg/L		106	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

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

Lab Sample ID: 400-139715-2 MSD
Matrix: Water
Analysis Batch: 359473

Client Sample ID: ARGWA-13
Prep Type: Total Recoverable
Prep Batch: 359131

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	<0.00040		0.0500	0.0538		mg/L		108	75 - 125	4	20
Lead	<0.00035		0.0500	0.0549		mg/L		110	75 - 125	4	20
Lithium	0.0052		0.0500	0.0514		mg/L		92	75 - 125	2	20
Molybdenum	<0.00085		0.100	0.102		mg/L		102	75 - 125	4	20
Selenium	0.019		0.0500	0.0727		mg/L		107	75 - 125	3	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-358711/14-A
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358711

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		06/28/17 12:48	07/05/17 12:46	1

Lab Sample ID: LCS 400-358711/15-A
Matrix: Water
Analysis Batch: 359443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358711

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.00101	0.000997		mg/L		99	80 - 120

Lab Sample ID: 400-139715-1 MS
Matrix: Water
Analysis Batch: 359443

Client Sample ID: ARGWA-12
Prep Type: Total/NA
Prep Batch: 358711

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00180		mg/L		90	80 - 120

Lab Sample ID: 400-139715-1 MSD
Matrix: Water
Analysis Batch: 359443

Client Sample ID: ARGWA-12
Prep Type: Total/NA
Prep Batch: 358711

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00182		mg/L		90	80 - 120	1	20

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

Lab Sample ID: MB 400-358313/1
Matrix: Water
Analysis Batch: 358313

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/17 13:09	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

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

Lab Sample ID: LCS 400-358313/2
Matrix: Water
Analysis Batch: 358313

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	293	262		mg/L		89	78 - 122

Lab Sample ID: 400-139714-A-7 DU
Matrix: Water
Analysis Batch: 358313

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1200		1200		mg/L		0	5

Lab Sample ID: 400-139714-A-9 DU
Matrix: Water
Analysis Batch: 358313

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	88		88.0		mg/L		0	5

Lab Sample ID: MB 400-358574/1
Matrix: Water
Analysis Batch: 358574

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	<3.4		5.0	3.4	mg/L			06/27/17 16:35	1

Lab Sample ID: LCS 400-358574/2
Matrix: Water
Analysis Batch: 358574

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	293	276		mg/L		94	78 - 122

Lab Sample ID: 400-139715-10 DU
Matrix: Water
Analysis Batch: 358574

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	130		132		mg/L		0	5

Lab Sample ID: 400-139715-11 DU
Matrix: Water
Analysis Batch: 358574

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	82		82.0		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone: 770.594.5998 Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright Site:		Lab PM: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): TA-ATC Prof off		COC No: 400-66089-24993.3 Page: <u>Page 2 of 2</u> Job #:	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WG #:		Analysis Requested			
Sample Identification Sample Date: M/00/YY Sample Time:		Field Filtered Sample (Yes or No) Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - NaHSO4 R - Na2SO3 S - HZSO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample ID: ARGWA-12 Sample Date: 6/21/17 Sample Time: 1050 Matrix: Water		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes: A-HCL, B-NaOH, C-Zn Acetate, D-Nitric Acid, E-NaHSO4, F-MeOH, G-Amchlor, H-Ascorbic Acid, I-Ice, J-DI Water, K-EDTA, L-EDA, Other:	
Sample ID: ARGWA-13 Sample Date: 6/21/17 Sample Time: 1010 Matrix: Water		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: ARGWC-8 Sample Date: 6/21/17 Sample Time: 1600 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: ARGWC-15 Sample Date: 6/21/17 Sample Time: 1130 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: ARGWC-16 Sample Date: 6/21/17 Sample Time: 1355 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: ARGWC-17 Sample Date: 6/21/17 Sample Time: 1600 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: ARGWC-18 Sample Date: 6/21/17 Sample Time: 1705 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: EB-1-6-21-17 Sample Date: 6/21/17 Sample Time: 1025 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Sample ID: FB-1-6-21-17 Sample Date: 6/21/17 Sample Time: 1650 Matrix: W		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> N		Preservation Codes:	
Special Instructions/Note: 4 level IV Report requested		Total Number of containers:		Special Instructions/Note:	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: _____

Relinquished by: Date/Time: 6/22/17 1440 Company ACC
 Relinquished by: Date/Time: 6/22/17 1600 Company ACC
 Relinquished by: Date/Time: _____ Company

Received by: Date/Time: 6/22/17 1440 Company ACC
 Received by: Date/Time: 6/23/17 0830 Company ACC
 Received by: Date/Time: _____ Company

Cooler Temperature(s) °C and Other Remarks:
 4.2°C, 4.8°C, 2.2°C



Chain of Custody Record

681-Atlanta

Client Information Client Contact: Joju Abraham Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State, Zip: GA, 30308 Phone: PO #: SCS10347656 WO #: Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright Site:		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Carrier Tracking No(s): TA-ATU Prop off		COC No: 400-66089-24993.1 Page: 4 of 5 Job #:	
Due Date Requested: TAT Requested (days): Sample Date: 6/22/17 Sample Time: 0925		Field Filled Sample (Yes or No): 9315_Ra226, 9320_Ra226 6020_7470A 2540C_300_ORGFM_28D		Analysis Requested	
Sample Identification ARGWC-7 ARGWC-10 ARGWC-9 DUP-1		Sample Type (C=Comp, G=grab) Sample Time Preservation Code:		Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Total Number of Containers	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/Note: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 G - Anchlor H - Ascorbic Acid I - Ice J - DI Water V - MCAA W - pH 4-5 L - EDA Other:	
Relinquished by: Chris Post Relinquished by: Chris Post Relinquished by:		Date: 6/22/17 Date Time: 1440 Date Time: 0837		Company: ACC Company: TA-ATU Company:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:		Method of Shipment:	

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139715-1

SDG Number:

Login Number: 139715

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

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.	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	4.2°C, 4.8°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-1

Laboratory: 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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139715-2

Client Project/Site: CCR Plant Arkwright - Ash Ponds

For:

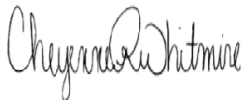
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

7/20/2017 3:03:45 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Job ID: 400-139715-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-139715-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-315400. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. ARGWA-12 (400-139715-1), ARGWA-13 (400-139715-2), ARGWC-8 (400-139715-3), ARGWC-15 (400-139715-4), ARGWC-16 (400-139715-5), ARGWC-17 (400-139715-6), ARGWC-18 (400-139715-7), EB-1-6-21-17 (400-139715-8), FB-1-6-21-17 (400-139715-9), ARGWC-7 (400-139715-10), ARGWC-10 (400-139715-11), ARGWC-9 (400-139715-12) and DUP-1 (400-139715-13)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-315394. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. ARGWA-12 (400-139715-1), ARGWA-13 (400-139715-2), ARGWC-8 (400-139715-3), ARGWC-15 (400-139715-4), ARGWC-16 (400-139715-5), ARGWC-17 (400-139715-6), ARGWC-18 (400-139715-7), EB-1-6-21-17 (400-139715-8), FB-1-6-21-17 (400-139715-9), ARGWC-7 (400-139715-10), ARGWC-10 (400-139715-11), ARGWC-9 (400-139715-12) and DUP-1 (400-139715-13)



Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139715-1	ARGWA-12	Water	06/21/17 10:50	06/23/17 08:37
400-139715-2	ARGWA-13	Water	06/21/17 10:10	06/23/17 08:37
400-139715-3	ARGWC-8	Water	06/21/17 16:00	06/23/17 08:37
400-139715-4	ARGWC-15	Water	06/21/17 11:30	06/23/17 08:37
400-139715-5	ARGWC-16	Water	06/21/17 13:55	06/23/17 08:37
400-139715-6	ARGWC-17	Water	06/21/17 16:00	06/23/17 08:37
400-139715-7	ARGWC-18	Water	06/21/17 17:05	06/23/17 08:37
400-139715-8	EB-1-6-21-17	Water	06/21/17 10:25	06/23/17 08:37
400-139715-9	FB-1-6-21-17	Water	06/21/17 16:50	06/23/17 08:37
400-139715-10	ARGWC-7	Water	06/22/17 09:25	06/23/17 08:37
400-139715-11	ARGWC-10	Water	06/22/17 10:40	06/23/17 08:37
400-139715-12	ARGWC-9	Water	06/22/17 12:00	06/23/17 08:37
400-139715-13	DUP-1	Water	06/22/17 00:00	06/23/17 08:37

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWA-12

Lab Sample ID: 400-139715-1

Date Collected: 06/21/17 10:50

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0979		0.0578	0.0585	1.00	0.0638	pCi/L	06/27/17 08:00	07/19/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					06/27/17 08:00	07/19/17 05:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413		0.213	0.217	1.00	0.311	pCi/L	06/27/17 08:26	07/07/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					06/27/17 08:26	07/07/17 10:40	1
Y Carrier	88.6		40 - 110					06/27/17 08:26	07/07/17 10:40	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	0.511		0.221	0.225	5.00	0.311	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWA-13

Lab Sample ID: 400-139715-2

Date Collected: 06/21/17 10:10

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0731		0.0517	0.0521	1.00	0.0633	pCi/L	06/27/17 08:00	07/19/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					06/27/17 08:00	07/19/17 05:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0513	U	0.220	0.220	1.00	0.386	pCi/L	06/27/17 08:26	07/07/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					06/27/17 08:26	07/07/17 10:40	1
Y Carrier	85.6		40 - 110					06/27/17 08:26	07/07/17 10:40	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	0.124	U	0.226	0.226	5.00	0.386	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-8

Lab Sample ID: 400-139715-3

Date Collected: 06/21/17 16:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.131		0.0654	0.0665	1.00	0.0628	pCi/L	06/27/17 08:00	07/19/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					06/27/17 08:00	07/19/17 05:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0133	U	0.247	0.247	1.00	0.438	pCi/L	06/27/17 08:26	07/07/17 10:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					06/27/17 08:26	07/07/17 10:47	1
Y Carrier	84.9		40 - 110					06/27/17 08:26	07/07/17 10:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.144	U	0.256	0.256	5.00	0.438	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-15

Lab Sample ID: 400-139715-4

Date Collected: 06/21/17 11:30

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0920		0.0585	0.0591	1.00	0.0649	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.102	U	0.188	0.189	1.00	0.321	pCi/L	06/27/17 08:26	07/07/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					06/27/17 08:26	07/07/17 10:40	1
Y Carrier	83.7		40 - 110					06/27/17 08:26	07/07/17 10:40	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	0.194	U	0.197	0.198	5.00	0.321	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-16

Lab Sample ID: 400-139715-5

Date Collected: 06/21/17 13:55

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.142		0.0660	0.0672	1.00	0.0608	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.376		0.224	0.227	1.00	0.340	pCi/L	06/27/17 08:26	07/07/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					06/27/17 08:26	07/07/17 10:40	1
Y Carrier	90.1		40 - 110					06/27/17 08:26	07/07/17 10:40	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	0.518		0.234	0.237	5.00	0.340	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-17

Lab Sample ID: 400-139715-6

Date Collected: 06/21/17 16:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0609	U	0.0512	0.0514	1.00	0.0683	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.319	U	0.220	0.222	1.00	0.340	pCi/L	06/27/17 08:26	07/07/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					06/27/17 08:26	07/07/17 10:41	1
Y Carrier	83.0		40 - 110					06/27/17 08:26	07/07/17 10:41	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	0.380		0.226	0.228	5.00	0.340	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-18

Lab Sample ID: 400-139715-7

Date Collected: 06/21/17 17:05

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0776		0.0528	0.0532	1.00	0.0597	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422		0.198	0.202	1.00	0.278	pCi/L	06/27/17 08:26	07/07/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					06/27/17 08:26	07/07/17 10:41	1
Y Carrier	89.7		40 - 110					06/27/17 08:26	07/07/17 10:41	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	0.500		0.205	0.209	5.00	0.278	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: EB-1-6-21-17

Lab Sample ID: 400-139715-8

Date Collected: 06/21/17 10:25

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0787		0.0540	0.0545	1.00	0.0672	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.400		0.212	0.215	1.00	0.312	pCi/L	06/27/17 08:26	07/07/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/27/17 08:26	07/07/17 10:41	1
Y Carrier	87.9		40 - 110					06/27/17 08:26	07/07/17 10:41	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	0.478		0.218	0.222	5.00	0.312	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: FB-1-6-21-17

Lab Sample ID: 400-139715-9

Date Collected: 06/21/17 16:50

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0673		0.0476	0.0480	1.00	0.0567	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.223	U	0.228	0.229	1.00	0.372	pCi/L	06/27/17 08:26	07/07/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/27/17 08:26	07/07/17 10:41	1
Y Carrier	83.0		40 - 110					06/27/17 08:26	07/07/17 10:41	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	0.291	U	0.233	0.234	5.00	0.372	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-7

Lab Sample ID: 400-139715-10

Date Collected: 06/22/17 09:25

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0394	U	0.0645	0.0646	1.00	0.112	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.190	U	0.184	0.184	1.00	0.296	pCi/L	06/27/17 08:26	07/07/17 10:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/27/17 08:26	07/07/17 10:35	1
Y Carrier	89.0		40 - 110					06/27/17 08:26	07/07/17 10:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.229	U	0.195	0.195	5.00	0.296	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-10

Lab Sample ID: 400-139715-11

Date Collected: 06/22/17 10:40

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0964		0.0587	0.0594	1.00	0.0611	pCi/L	06/27/17 08:00	07/19/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/27/17 08:00	07/19/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.317		0.207	0.209	1.00	0.317	pCi/L	06/27/17 08:26	07/07/17 10:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/27/17 08:26	07/07/17 10:35	1
Y Carrier	88.2		40 - 110					06/27/17 08:26	07/07/17 10:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.414		0.215	0.217	5.00	0.317	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-9

Lab Sample ID: 400-139715-12

Date Collected: 06/22/17 12:00

Matrix: Water

Date Received: 06/23/17 08:37

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0245	U	0.0439	0.0439	1.00	0.0783	pCi/L	06/27/17 08:00	07/19/17 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/27/17 08:00	07/19/17 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.528		0.278	0.282	1.00	0.421	pCi/L	06/27/17 08:26	07/07/17 10:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/27/17 08:26	07/07/17 10:36	1
Y Carrier	84.1		40 - 110					06/27/17 08:26	07/07/17 10:36	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	0.552		0.281	0.285	5.00	0.421	pCi/L		07/19/17 14:39	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: DUP-1

Date Collected: 06/22/17 00:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-13

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	0.0347	U	0.0521	0.0522	1.00	0.0895	pCi/L	06/27/17 08:00	07/19/17 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/27/17 08:00	07/19/17 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.222	U	0.210	0.211	1.00	0.339	pCi/L	06/27/17 08:26	07/07/17 10:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					06/27/17 08:26	07/07/17 10:36	1
Y Carrier	85.6		40 - 110					06/27/17 08:26	07/07/17 10:36	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	0.257	U	0.216	0.217	5.00	0.339	pCi/L		07/19/17 14:39	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Lab Chronicle

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWA-12

Date Collected: 06/21/17 10:50

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 05:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:40	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWA-13

Date Collected: 06/21/17 10:10

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 05:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:40	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-8

Date Collected: 06/21/17 16:00

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 05:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316538	07/07/17 10:47	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-15

Date Collected: 06/21/17 11:30

Date Received: 06/23/17 08:37

Lab Sample ID: 400-139715-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:40	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: ARGWC-16

Lab Sample ID: 400-139715-5

Date Collected: 06/21/17 13:55

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:40	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-17

Lab Sample ID: 400-139715-6

Date Collected: 06/21/17 16:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:41	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-18

Lab Sample ID: 400-139715-7

Date Collected: 06/21/17 17:05

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:41	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: EB-1-6-21-17

Lab Sample ID: 400-139715-8

Date Collected: 06/21/17 10:25

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:41	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Lab Chronicle

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: FB-1-6-21-17

Lab Sample ID: 400-139715-9

Date Collected: 06/21/17 16:50

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316537	07/07/17 10:41	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-7

Lab Sample ID: 400-139715-10

Date Collected: 06/22/17 09:25

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316538	07/07/17 10:35	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-10

Lab Sample ID: 400-139715-11

Date Collected: 06/22/17 10:40

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318056	07/19/17 06:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316538	07/07/17 10:35	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Client Sample ID: ARGWC-9

Lab Sample ID: 400-139715-12

Date Collected: 06/22/17 12:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318053	07/19/17 06:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316538	07/07/17 10:36	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Client Sample ID: DUP-1

Lab Sample ID: 400-139715-13

Date Collected: 06/22/17 00:00

Matrix: Water

Date Received: 06/23/17 08:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			315394	06/27/17 08:00	LDE	TAL SL
Total/NA	Analysis	9315		1	318053	07/19/17 06:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			315400	06/27/17 08:26	LDE	TAL SL
Total/NA	Analysis	9320		1	316538	07/07/17 10:36	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	318182	07/19/17 14:39	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Rad

Prep Batch: 315394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total/NA	Water	PrecSep-21	
400-139715-2	ARGWA-13	Total/NA	Water	PrecSep-21	
400-139715-3	ARGWC-8	Total/NA	Water	PrecSep-21	
400-139715-4	ARGWC-15	Total/NA	Water	PrecSep-21	
400-139715-5	ARGWC-16	Total/NA	Water	PrecSep-21	
400-139715-6	ARGWC-17	Total/NA	Water	PrecSep-21	
400-139715-7	ARGWC-18	Total/NA	Water	PrecSep-21	
400-139715-8	EB-1-6-21-17	Total/NA	Water	PrecSep-21	
400-139715-9	FB-1-6-21-17	Total/NA	Water	PrecSep-21	
400-139715-10	ARGWC-7	Total/NA	Water	PrecSep-21	
400-139715-11	ARGWC-10	Total/NA	Water	PrecSep-21	
400-139715-12	ARGWC-9	Total/NA	Water	PrecSep-21	
400-139715-13	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-315394/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-315394/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-315394/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 315400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139715-1	ARGWA-12	Total/NA	Water	PrecSep_0	
400-139715-2	ARGWA-13	Total/NA	Water	PrecSep_0	
400-139715-3	ARGWC-8	Total/NA	Water	PrecSep_0	
400-139715-4	ARGWC-15	Total/NA	Water	PrecSep_0	
400-139715-5	ARGWC-16	Total/NA	Water	PrecSep_0	
400-139715-6	ARGWC-17	Total/NA	Water	PrecSep_0	
400-139715-7	ARGWC-18	Total/NA	Water	PrecSep_0	
400-139715-8	EB-1-6-21-17	Total/NA	Water	PrecSep_0	
400-139715-9	FB-1-6-21-17	Total/NA	Water	PrecSep_0	
400-139715-10	ARGWC-7	Total/NA	Water	PrecSep_0	
400-139715-11	ARGWC-10	Total/NA	Water	PrecSep_0	
400-139715-12	ARGWC-9	Total/NA	Water	PrecSep_0	
400-139715-13	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-315400/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-315400/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-315400/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-315394/1-A
Matrix: Water
Analysis Batch: 318056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315394

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.001908	U	0.0326	0.0326	1.00	0.0715	pCi/L	06/27/17 08:00	07/19/17 05:57	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	96.8		40 - 110		06/27/17 08:00	07/19/17 05:57	1			

Lab Sample ID: LCS 160-315394/2-A
Matrix: Water
Analysis Batch: 318056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315394

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.51		1.08	1.00	0.0626	pCi/L	93	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	101		40 - 110						

Lab Sample ID: LCSD 160-315394/3-A
Matrix: Water
Analysis Batch: 318056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 315394

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.4	10.25		1.06	1.00	0.0675	pCi/L	90	68 - 137	0.12	1
Carrier	LCSD LCSD		Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	%Yield	Qualifier	Limits								
Ba Carrier	95.6		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-315400/1-A
Matrix: Water
Analysis Batch: 316537

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315400

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1506	U	0.211	0.212	1.00	0.354	pCi/L	06/27/17 08:26	07/07/17 10:39	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	96.8		40 - 110		06/27/17 08:26	07/07/17 10:39	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	84.9		40 - 110		06/27/17 08:26	07/07/17 10:39	1			

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

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

Lab Sample ID: LCS 160-315400/2-A
Matrix: Water
Analysis Batch: 316537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315400

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.2	14.39		1.53	1.00	0.347	pCi/L	109	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: LCSD 160-315400/3-A
Matrix: Water
Analysis Batch: 316537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 315400

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.2	15.67		1.65	1.00	0.366	pCi/L	119	56 - 140	0.40	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	95.6		40 - 110
Y Carrier	85.2		40 - 110

Chain of Custody Record

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:	
Southern Company		Whitmore, Cheyenne R.		TA-ATC		400-66089-24993.3	
Address: 241 Ralph McGill Blvd SE B10185		E-Mail: cheyenne.whitmore@testamericainc.com		Prof opp		Page: <u> </u>	
City: Atlanta		Phone: 770) 594-5998		Job #:		Preservation Codes:	
State: GA, 30308		PO #: SCS10347656		Analysis Requested		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - HZSO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project Name: CCR- Plant Arkwright		Project #: 40007041		Field Filtered Sample (Yes or No)		Special Instructions/Note:	
Site:		SSOW#: <u> </u>		Due Date Requested:		Total Number of containers	
TAT Requested (days):		Sample Date		Sample Time		Matrix	
Sample Identification		Sample Type (C=Comp, G=grab)		Preservation Code:		Other:	
ARGWA-12	M/00/yy	6/21/17	G	1050	Water	3	Level IV
ARGWA-13		6/21/17	G	1010	Water	3	Report requested
ARGWC-8		6/21/17	G	1600	W	3	
ARGWC-15		6/21/17	G	1130	W	3	
ARGWC-16		6/21/17	G	1355	W	3	
ARGWC-17		6/21/17	G	1600	W	3	
ARGWC-18		6/21/17	G	1705	W	3	
EB-1-6-21-17		6/21/17	G	1025	W	3	
FB-1-6-21-17		6/21/17	G	1650	W	3	

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Archive For _____ Months
<input type="checkbox"/> Deliverable Requested: I, II, III, IV	<input type="checkbox"/> Other (specify)	<input checked="" type="checkbox"/> Disposal By Lab	
Empty Kit Relinquished by:		Special Instructions/QC Requirements:	
Relinquished by: <u> </u>	Date: <u>6/22/17</u>	Method of Shipment:	
Relinquished by: <u> </u>	Date: <u>6/22/17</u>	Date/Time: <u>6/22/17 1440</u>	
Relinquished by: <u> </u>	Date: <u>6/22/17</u>	Date/Time: <u>6/23/17 0830</u>	
Custody Seals Intact: <u> </u>		Cooler Temperature(s) °C and Other Remarks: <u>48°C JLC2</u>	



Chain of Custody Record

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Joju Abraham Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA, 30308 Phone: SCS10347656 Email: JAbraham@southernco.com Project Name: CCR- Plant Arkwright Site:		Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com		TA-ATU Prop off		400-66089-24993.1 Page: 4 of 5 Job #:	
Due Date Requested:		Analysis Requested		Total Number of Containers		Preservation Codes:	
TAT Requested (days):		9315 Ra226, 9320 Ra226 6020, 7470A 2540C, 300_ORGFM_28D		MPP/Y Y 6/22/17 0925 6/22/17 1040 6/22/17 1200 6/22/17 —		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)	
Sample Identification		Field Filled Sample (Yes or No)		Special Instructions/Note:		Other:	
AR6WC-7 AR6WC-10 AR6WC-9 DUP-1	Sample Date Sample Time Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Sample Type (C=Comp, G=grab) Preservation Code	Yes No Yes No Yes No Yes No	D D D D N	3 3 3 3	Special Instructions/Note: Special Instructions/Note: Special Instructions/Note: Special Instructions/Note:	Other: Other:
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Method of Shipment:		Relinquished by:	
Relinquished by: Chris Post		Date: 6/22/17		Method of Shipment:		Relinquished by:	
Relinquished by:		Date: 6/22/17 1440		Method of Shipment:		Relinquished by:	
Relinquished by:		Date: 6/22/17 1600		Method of Shipment:		Relinquished by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Company: ACC Company: ACC Company: ACC	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-139715-2

SDG Number:

Login Number: 139715

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

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.	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	4.2°C, 4.8°C IR-2
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

Laboratory: 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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

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

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright - Ash Ponds

TestAmerica Job ID: 400-139715-2

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
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

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

TestAmerica Pensacola

Product Name: Low-Flow System

Date: 2017-06-20 15:19:59

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 40.0 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 36.10 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.590854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 62 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%	+/- 0		+/- 0.2	+/- 0
Last 5	14:55:29	19688.06	21.33	5.80	84.29	9.91	36.30	6.27	114.68
Last 5	15:00:29	19988.06	21.37	5.81	84.30	10.00	36.30	6.27	114.36
Last 5	15:05:29	20288.05	21.24	5.80	84.21	9.85	36.30	6.27	117.57
Last 5	15:10:29	20588.05	21.26	5.79	84.26	9.79	36.30	6.28	114.99
Last 5	15:15:31	20890.04	21.23	5.80	84.19	9.71	36.00	6.25	114.52
Variance 0			-0.13	-0.00	-0.09			0.00	3.21
Variance 1			0.02	-0.01	0.05			0.00	-2.58
Variance 2			-0.03	0.01	-0.06			-0.02	-0.48

Notes

Collected at 15:20. Light rain, 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 17:47:29

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 35.0 ft

Pump placement from TOC 28.1 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 24.07 ft

Pumping Information:

Final Pumping Rate 225 mL/min
Total System Volume 0.5462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	17:22:48	3300.97	19.24	5.72	79.17	3.97	24.20	5.67	122.14
Last 5	17:27:49	3601.98	19.24	5.72	79.10	3.83	24.20	5.67	122.23
Last 5	17:32:49	3901.97	19.19	5.72	78.83	3.56	24.20	5.66	123.81
Last 5	17:37:49	4201.97	19.21	5.70	79.03	3.61	24.20	5.68	123.60
Last 5	17:42:49	4502.23	19.24	5.69	79.02	3.42	24.20	5.69	122.23
Variance 0			-0.05	-0.00	-0.27			-0.01	1.58
Variance 1			0.02	-0.02	0.20			0.03	-0.21
Variance 2			0.03	-0.00	-0.01			0.01	-1.37

Notes

Collected at 17:45. Rain 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 10:51:24

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 35.0 ft

Pump placement from TOC 27.3 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.35 ft
Screen Length 10 ft
Depth to Water 17.60 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.150153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 8.4 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	10:27:22	900.03	19.06	5.77	178.62	11.00	18.20	3.12	92.40
Last 5	10:32:22	1200.01	19.10	5.78	178.23	8.65	18.20	3.08	96.66
Last 5	10:37:22	1500.01	19.13	5.78	177.78	5.95	18.20	3.07	101.44
Last 5	10:42:22	1800.00	19.10	5.77	177.77	5.21	18.20	3.04	104.19
Last 5	10:47:22	2099.99	19.09	5.73	177.63	4.80	18.20	3.04	105.68
Variance 0			0.03	-0.00	-0.45			-0.02	4.78
Variance 1			-0.03	-0.00	-0.01			-0.03	2.75
Variance 2			-0.02	-0.04	-0.14			-0.01	1.49

Notes

Collected at 10:50. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 10:10:41

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 47.38"
Longitude -83° -42' -18.73"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 48 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 25.42 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.96 in
Total Volume Pumped 6.6 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%	+/- 0		+/- 10%	+/- 0
Last 5	09:48:00	600.02	18.69	5.73	1061.16	2.41	26.00	0.90	87.61
Last 5	09:53:00	900.02	18.66	5.71	1058.71	1.31	26.00	0.82	90.28
Last 5	09:58:00	1200.02	18.64	5.69	1066.07	0.98	26.00	0.71	91.84
Last 5	10:03:00	1500.02	18.61	5.68	1070.74	0.74	26.00	0.68	92.72
Last 5	10:08:00	1800.08	18.61	5.67	1074.40	0.75	26.00	0.69	93.82
Variance 0			-0.02	-0.02	7.37			-0.11	1.55
Variance 1			-0.02	-0.01	4.67			-0.03	0.88
Variance 2			-0.00	-0.01	3.66			0.01	1.10

Notes

Sampled at 10:10. Rain 70's. EB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-20 16:32:15

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 47.65"
Longitude -83° -42' -16.33"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 63 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 41.92 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.853275 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 40.56 in
Total Volume Pumped 2.75 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%	+/- 0		+/- 10%	+/- 0
Last 5	16:10:01	2099.99	21.96	6.72	621.60	0.92	44.70	3.98	71.20
Last 5	16:15:01	2399.99	21.91	6.70	611.87	0.81	45.00	4.08	70.08
Last 5	16:20:01	2699.98	22.13	6.69	605.16	0.91	45.10	4.10	68.79
Last 5	16:25:01	2999.99	22.30	6.68	592.88	0.88	45.20	4.06	67.92
Last 5	16:30:01	3299.97	22.44	6.66	577.44	0.87	45.30	3.98	67.14
Variance 0			0.22	-0.01	-6.70			0.02	-1.29
Variance 1			0.17	-0.01	-12.28			-0.04	-0.87
Variance 2			0.14	-0.02	-15.44			-0.08	-0.79

Notes

Sampled at 16:30. Rain 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 09:25:43

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 31.65"
Longitude -83° -42' -16.45"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 52 ft

Pump placement from TOC 42 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.32 ft
Screen Length 10 ft
Depth to Water 23.77 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 1.61437 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 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%	+/- 0		+/- 10%	+/- 0
Last 5	09:03:41	600.03	19.42	5.71	193.36	3.64	24.00	2.39	82.96
Last 5	09:08:41	900.03	19.43	5.71	194.85	3.27	24.00	2.41	83.20
Last 5	09:13:41	1200.01	19.43	5.70	195.04	2.83	24.00	2.41	82.99
Last 5	09:18:41	1500.01	19.46	5.71	195.58	2.25	24.00	2.41	82.14
Last 5	09:23:42	1801.01	19.45	5.69	195.32	2.43	24.00	2.41	83.15
Variance 0			-0.01	-0.02	0.19			-0.00	-0.21
Variance 1			0.03	0.02	0.54			0.00	-0.86
Variance 2			-0.01	-0.02	-0.26			-0.01	1.01

Notes

Sampled at 09:25. Cloudy 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 16:03:43

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 45.0 ft

Pump placement from TOC 38.2 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 26.18 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 1.367339 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 39 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:40:36	11430.87	20.84	6.29	474.11	10.00	26.30	0.15	67.70
Last 5	15:45:36	11730.87	20.88	6.29	471.85	9.78	26.30	0.14	68.09
Last 5	15:50:36	12030.88	20.79	6.28	472.12	10.00	26.30	0.15	68.34
Last 5	15:55:41	12335.85	20.77	6.28	472.10	9.75	26.30	0.15	68.32
Last 5	16:00:45	12639.85	20.77	6.28	472.16	9.27	26.30	0.14	68.39
Variance 0			-0.09	-0.01	0.26			0.00	0.25
Variance 1			-0.02	0.00	-0.02			-0.00	-0.02
Variance 2			0.00	-0.00	0.07			-0.00	0.07

Notes

Collected at 16:00. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 11:57:16

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 42.0 ft

Pump placement from TOC 33.0 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.07 ft
Screen Length 10 ft
Depth to Water 22.15 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.302183 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 8.3 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%	+/- 0		+/- 0.2	+/- 0
Last 5	11:30:54	1588.99	22.56	5.64	88.54	6.45	22.30	4.58	137.17
Last 5	11:35:54	1888.99	22.85	5.64	88.53	5.70	22.30	4.60	135.68
Last 5	11:40:54	2188.99	23.11	5.61	88.62	5.11	22.30	4.59	137.68
Last 5	11:50:54	2788.98	23.52	5.65	88.64	4.72	22.30	4.60	139.59
Last 5	11:55:54	3088.98	23.65	5.64	88.50	4.65	22.30	4.59	141.89
Variance 0			0.27	-0.02	0.09			-0.01	2.00
Variance 1			0.41	0.04	0.01			0.01	1.90
Variance 2			0.13	-0.01	-0.14			-0.00	2.30

Notes

Collected at 11:00. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-22 10:41:26

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 41.0 ft

Pump placement from TOC 33.3 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 22.61 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.280465 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	10:10:51	4499.96	20.12	5.71	104.78	7.53	22.80	4.09	115.59
Last 5	10:15:51	4799.96	20.15	5.68	104.70	6.09	22.80	4.10	113.32
Last 5	10:20:51	5099.97	20.17	5.69	104.87	5.37	22.80	4.10	115.22
Last 5	10:25:51	5399.95	20.21	5.70	104.76	4.98	22.80	4.12	114.86
Last 5	10:30:51	5699.94	20.22	5.68	104.87	4.85	22.80	4.13	115.25
Variance 0			0.02	0.01	0.17			0.00	1.90
Variance 1			0.04	0.01	-0.12			0.01	-0.36
Variance 2			0.00	-0.02	0.11			0.01	0.39

Notes

Collected at 10:40. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 11:28:24

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 42.33"
Longitude -83° -42' -16.69"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 47 ft

Pump placement from TOC 37 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 30.15 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.505776 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 13.8 in
Total Volume Pumped 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%	+/- 0		+/- 10%	+/- 0
Last 5	11:03:18	600.03	22.08	6.23	203.41	1.72	30.90	6.20	105.96
Last 5	11:08:18	900.02	22.30	6.16	193.64	1.68	31.00	5.84	105.88
Last 5	11:13:18	1200.02	22.40	6.13	188.39	1.70	31.10	5.54	105.80
Last 5	11:18:18	1500.03	22.47	6.12	186.43	1.67	31.20	5.30	105.61
Last 5	11:23:18	1800.03	22.53	6.11	186.19	1.50	31.30	5.15	104.71
Variance 0			0.10	-0.03	-5.25			-0.30	-0.09
Variance 1			0.07	-0.00	-1.97			-0.24	-0.19
Variance 2			0.06	-0.01	-0.24			-0.15	-0.90

Notes

Sampled at 11:30. Cloudy 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 13:51:56

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 40.2"
Longitude -83° -42' -18.82"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 39 ft

Pump placement from TOC 29 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 21.34 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.332027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 8.4 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:29:40	1200.02	20.50	5.22	317.98	3.38	21.40	0.42	127.22
Last 5	13:34:40	1500.02	20.46	5.22	319.38	2.25	21.40	0.40	133.44
Last 5	13:39:40	1800.02	20.42	5.22	319.83	2.28	21.40	0.36	136.99
Last 5	13:44:40	2100.02	20.41	5.23	320.80	1.34	21.40	0.36	138.06
Last 5	13:49:40	2399.99	20.39	5.21	321.20	1.18	21.40	0.35	145.38
Variance 0			-0.04	-0.01	0.45			-0.04	3.55
Variance 1			-0.01	0.01	0.97			-0.01	1.06
Variance 2			-0.02	-0.01	0.40			-0.01	7.32

Notes

Sampled at 13:55. Rain 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 15:56:24

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright- Ash Pond 3
Latitude 32° 55' 42.09"
Longitude -83° -42' -20.7"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 38 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 22.69 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 1.310309 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.12 in
Total Volume Pumped 8.5 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%	+/- 0		+/- 10%	+/- 0
Last 5	15:33:42	3301.00	21.55	5.31	225.63	3.62	23.20	0.68	100.79
Last 5	15:38:42	3601.00	21.53	5.33	225.58	3.00	23.20	0.64	99.91
Last 5	15:43:42	3900.97	21.46	5.31	224.51	2.51	23.20	0.60	100.14
Last 5	15:48:42	4200.96	21.35	5.30	222.05	2.30	23.20	0.56	100.54
Last 5	15:53:42	4500.96	21.32	5.30	223.08	2.64	23.20	0.54	99.82
Variance 0			-0.06	-0.02	-1.07			-0.04	0.23
Variance 1			-0.12	-0.01	-2.46			-0.04	0.40
Variance 2			-0.03	0.01	1.04			-0.01	-0.71

Notes

Sampled at 16:00. Rain 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-06-21 17:03:54

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 55 ft

Pump placement from TOC 45.6 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 28.28 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.584525 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 67 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%	+/- 0		+/- 0.2	+/- 0
Last 5	16:40:10	603.03	22.54	5.91	589.93	7.73	26.30	0.23	50.34
Last 5	16:45:10	903.02	22.53	5.90	596.89	7.55	26.30	0.24	50.92
Last 5	16:50:14	1207.01	22.41	5.91	589.52	6.68	26.30	0.24	51.31
Last 5	16:55:14	1507.01	22.42	5.91	589.94	6.95	26.30	0.22	51.10
Last 5	17:00:19	1812.02	22.49	5.90	589.49	7.05	26.30	0.22	51.43
Variance 0			-0.13	0.00	-7.37			-0.00	0.39
Variance 1			0.01	-0.00	0.42			-0.01	-0.21
Variance 2			0.07	-0.00	-0.45			-0.00	0.33

Notes

Collected at 17:05. Cloudy 70s. FB-1 here

Grab Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-145106-1

TestAmerica SDG: Plant Arkwright Ash Pond 3

Client Project/Site: CCR Plant Arkwright

Sampling Event: AP-3

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

11/10/2017 5:58:02 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Job ID: 400-145106-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-145106-1

HPLC/IC

Method(s) 300.0: The continuing calibration verification (CCV) associated with batch 373599 recovered above the upper control limit for Sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 400-373599/14) and (CCV 400-373599/26).

Method(s) 300.0: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 373685 recovered outside control limits for the following analytes: Sulfate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-145106-3), ARGWC-18 (400-145106-8), ARGWC-8 (400-145106-11), ARGWC-16 (400-145106-14), ARGWC-17 (400-145106-15) and DUP-1 (400-145106-16). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The CCB for analytical batch 373874 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: The CCB for analytical batch 374203 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: The following sample was diluted due to high conductivity: ARGWA-13 (400-145106-3). Elevated reporting limits (RL) are provided.

Metals

Method(s) 6020: The method blank for preparation batch 373649 and analytical batch 373901 contained Silver above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: ARGWC-18 (400-145106-8). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The continuing calibration blank (CCB) for analytical batch 373901 contained Lead above the reporting limit (RL). All reported samples associated with this CCB were ND for this analyte; therefore, re-analysis of samples was not performed.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: EB-1-10-25-17

Lab Sample ID: 400-145106-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.0012	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00052	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: ARGWC-9

Lab Sample ID: 400-145106-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.95	J *	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0094		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00029	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-13

Lab Sample ID: 400-145106-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	580		20	14	mg/L	20		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00013	J B	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Boron	0.17		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	120		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0059		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0018	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.022		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	900		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-3

Lab Sample ID: 400-145106-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0031		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.00093	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00032	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-3 (Continued)

Lab Sample ID: 400-145106-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-5

Lab Sample ID: 400-145106-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00027	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-12

Lab Sample ID: 400-145106-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.070		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.028	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0056		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00027	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-14

Lab Sample ID: 400-145106-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.29		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	9.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.041	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	28		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0061		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00038	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	280		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-18

Lab Sample ID: 400-145106-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.092	J	0.20	0.082	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-18 (Continued)

Lab Sample ID: 400-145106-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	190		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	49		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0013	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0047	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Boron - DL	2.5		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	380		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1-10-25-17

Lab Sample ID: 400-145106-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.00070	J B	0.0013	0.00011	mg/L	5		6020	Total Recoverable

Client Sample ID: ARGWC-7

Lab Sample ID: 400-145106-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	49		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0028		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0050		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-8

Lab Sample ID: 400-145106-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	72		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.5		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	55		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.041		0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	270		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-145106-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.026	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	7.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0043		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15

Lab Sample ID: 400-145106-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	5.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00037	J B	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00040	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-145106-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	110		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00026	J B	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Boron	0.054		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0012	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000094	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-17

Lab Sample ID: 400-145106-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	61		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.00087	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-17 (Continued)

Lab Sample ID: 400-145106-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.023	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.021		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-145106-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	73		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.00072	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00025	J B	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Boron	1.4		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	54		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0040	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.040		0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	300		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-145106-1	EB-1-10-25-17	Water	10/25/17 09:30	10/26/17 08:26
400-145106-2	ARGWC-9	Water	10/25/17 09:55	10/26/17 08:26
400-145106-3	ARGWA-13	Water	10/25/17 09:50	10/26/17 08:26
400-145106-4	ARGWA-3	Water	10/25/17 18:30	10/27/17 08:33
400-145106-5	ARGWA-5	Water	10/25/17 14:40	10/27/17 08:33
400-145106-6	ARGWA-12	Water	10/25/17 15:50	10/27/17 08:33
400-145106-7	ARGWA-14	Water	10/25/17 11:45	10/27/17 08:33
400-145106-8	ARGWC-18	Water	10/25/17 11:50	10/27/17 08:33
400-145106-9	FB-1-10-25-17	Water	10/25/17 14:30	10/27/17 08:33
400-145106-10	ARGWC-7	Water	10/25/17 17:40	10/27/17 08:33
400-145106-11	ARGWC-8	Water	10/26/17 10:25	10/27/17 08:33
400-145106-12	ARGWC-10	Water	10/26/17 12:40	10/27/17 08:33
400-145106-13	ARGWC-15	Water	10/26/17 09:55	10/27/17 08:33
400-145106-14	ARGWC-16	Water	10/26/17 13:25	10/27/17 08:33
400-145106-15	ARGWC-17	Water	10/26/17 12:05	10/27/17 08:33
400-145106-16	DUP-1	Water	10/26/17 00:00	10/27/17 08:33

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: EB-1-10-25-17

Lab Sample ID: 400-145106-1

Date Collected: 10/25/17 09:30

Matrix: Water

Date Received: 10/26/17 08:26

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/17 00:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 00:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/17 00:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 15:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 15:49	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 15:49	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 15:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 15:49	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 15:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 15:49	5
Calcium	<0.13		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 15:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 15:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 15:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 15:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 15:49	5
Molybdenum	0.0012	J	0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 15:49	5
Selenium	0.00052	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 15:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 15:49	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		10/27/17 11:49	10/31/17 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-9

Date Collected: 10/25/17 09:55

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.89	mg/L			10/28/17 02:41	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 02:41	1
Sulfate	0.95	J *	1.0	0.70	mg/L			10/28/17 02:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 15:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 15:53	5
Barium	0.049		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 15:53	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 15:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 15:53	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 15:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 15:53	5
Calcium	6.1		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 15:53	5
Chromium	0.0094		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 15:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 15:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 15:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 15:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 15:53	5
Selenium	0.00029	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 15:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 15:53	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		10/27/17 11:49	10/31/17 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-145106-3

Date Collected: 10/25/17 09:50

Matrix: Water

Date Received: 10/26/17 08:26

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		5.0	4.5	mg/L			10/29/17 06:38	5
Fluoride	<0.41		1.0	0.41	mg/L			10/29/17 06:38	5
Sulfate	580		20	14	mg/L			10/30/17 19:59	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 16:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 16:16	5
Barium	0.030		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 16:16	5
Silver	0.00013	J B	0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 16:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:16	5
Boron	0.17		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 16:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:16	5
Calcium	120		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 16:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 16:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 16:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 16:16	5
Lithium	0.0059		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 16:16	5
Molybdenum	0.0018	J	0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 16:16	5
Selenium	0.022		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 16:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 16:16	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		10/27/17 11:49	10/31/17 13:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-3

Date Collected: 10/25/17 18:30

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		1.0	0.89	mg/L			10/28/17 03:49	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 03:49	1
Sulfate	<0.70	*	1.0	0.70	mg/L			10/28/17 03:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 16:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 16:20	5
Barium	0.019		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 16:20	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 16:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:20	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 16:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:20	5
Calcium	5.9		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 16:20	5
Chromium	0.0031		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 16:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 16:20	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 16:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 16:20	5
Molybdenum	0.00093	J	0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 16:20	5
Selenium	0.00032	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 16:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 16:20	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		10/31/17 10:51	11/09/17 09:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-5

Date Collected: 10/25/17 14:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.89	mg/L			10/28/17 04:12	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 04:12	1
Sulfate	<0.70	*	1.0	0.70	mg/L			10/28/17 04:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 16:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 16:47	5
Barium	0.030		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 16:47	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 16:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:47	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 16:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:47	5
Calcium	6.0		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 16:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 16:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 16:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 16:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 16:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 16:47	5
Selenium	0.00027	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 16:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 16:47	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		10/31/17 10:51	11/09/17 09:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-12

Date Collected: 10/25/17 15:50

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		1.0	0.89	mg/L			10/28/17 04:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 04:35	1
Sulfate	11		1.0	0.70	mg/L			10/29/17 06:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 16:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 16:52	5
Barium	0.070		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 16:52	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 16:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:52	5
Boron	0.028	J	0.050	0.021	mg/L		10/27/17 16:54	10/28/17 16:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:52	5
Calcium	13		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 16:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 16:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 16:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 16:52	5
Lithium	0.0056		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 16:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 16:52	5
Selenium	0.00027	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 16:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 16:52	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		10/31/17 10:51	11/09/17 09:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-145106-7

Date Collected: 10/25/17 11:45

Matrix: Water

Date Received: 10/27/17 08:33

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			10/28/17 04:57	1
Fluoride	0.29		0.20	0.082	mg/L			10/28/17 04:57	1
Sulfate	9.1		1.0	0.70	mg/L			10/29/17 07:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 16:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 16:56	5
Barium	0.050		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 16:56	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 16:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:56	5
Boron	0.041	J	0.050	0.021	mg/L		10/27/17 16:54	10/28/17 16:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 16:56	5
Calcium	28		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 16:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 16:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 16:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 16:56	5
Lithium	0.0061		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 16:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 16:56	5
Selenium	0.00038	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 16:56	5
Thallium	<0.00085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 16:56	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		10/31/17 10:51	11/09/17 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	280		5.0	3.4	mg/L			10/29/17 08:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-145106-8

Date Collected: 10/25/17 11:50

Matrix: Water

Date Received: 10/27/17 08:33

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		1.0	0.89	mg/L			10/28/17 06:06	1
Fluoride	0.092	J	0.20	0.082	mg/L			10/28/17 06:06	1
Sulfate	190		5.0	3.5	mg/L			10/29/17 08:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 17:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 17:01	5
Barium	0.041		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 17:01	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 17:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:01	5
Calcium	49		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 17:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 17:01	5
Cobalt	0.0013	J	0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 17:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 17:01	5
Lithium	0.0047	J	0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 17:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 17:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 17:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 17:01	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.5		0.25	0.11	mg/L		10/27/17 16:54	10/28/17 17:05	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		10/31/17 10:51	11/09/17 09:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	380		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: FB-1-10-25-17

Lab Sample ID: 400-145106-9

Date Collected: 10/25/17 14:30

Matrix: Water

Date Received: 10/27/17 08:33

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/17 06:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 06:29	1
Sulfate	<0.70	*	1.0	0.70	mg/L			10/28/17 06:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 17:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 17:10	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 17:10	5
Silver	0.00070	J B	0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 17:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:10	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 17:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:10	5
Calcium	<0.13		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 17:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 17:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 17:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 17:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 17:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 17:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 17:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 17:10	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		10/31/17 10:51	11/09/17 10:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-7

Date Collected: 10/25/17 17:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			10/28/17 06:51	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 06:51	1
Sulfate	49		1.0	0.70	mg/L			10/29/17 08:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 17:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 17:14	5
Barium	0.038		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 17:14	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 17:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:14	5
Boron	0.12		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 17:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:14	5
Calcium	12		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 17:14	5
Chromium	0.0028		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 17:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 17:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 17:14	5
Lithium	0.0050		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 17:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 17:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 17:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 17:14	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		10/31/17 10:51	11/09/17 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-8

Date Collected: 10/26/17 10:25

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.89	mg/L			10/28/17 07:14	1
Fluoride	0.13	J	0.20	0.082	mg/L			10/28/17 07:14	1
Sulfate	72		5.0	3.5	mg/L			10/31/17 21:45	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 17:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 17:19	5
Barium	0.046		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 17:19	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 17:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:19	5
Boron	1.5		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 17:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:19	5
Calcium	55		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 17:19	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 17:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 17:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 17:19	5
Lithium	0.0041	J	0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 17:19	5
Molybdenum	0.041		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 17:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 17:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 17:19	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		10/31/17 10:51	11/09/17 10:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	270		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-10

Date Collected: 10/26/17 12:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.89	mg/L			10/28/17 07:37	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 07:37	1
Sulfate	<0.70	*	1.0	0.70	mg/L			10/28/17 07:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 17:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 17:23	5
Barium	0.032		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 17:23	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 17:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:23	5
Boron	0.026	J	0.050	0.021	mg/L		10/27/17 16:54	10/28/17 17:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:23	5
Calcium	7.8		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 17:23	5
Chromium	0.0043		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 17:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 17:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 17:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 17:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 17:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 17:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 17:23	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		10/31/17 10:54	11/09/17 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-145106-13

Date Collected: 10/26/17 09:55

Matrix: Water

Date Received: 10/27/17 08:33

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		1.0	0.89	mg/L			10/28/17 08:00	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 08:00	1
Sulfate	5.4		1.0	0.70	mg/L			10/29/17 10:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 17:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 17:28	5
Barium	0.029		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 17:28	5
Silver	0.00037	J B	0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 17:28	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:28	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 17:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 17:28	5
Calcium	19		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 17:28	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 17:28	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 17:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 17:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 17:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 17:28	5
Selenium	0.00040	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 17:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 17:28	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		10/31/17 10:54	11/09/17 10:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	96		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-145106-14

Date Collected: 10/26/17 13:25

Matrix: Water

Date Received: 10/27/17 08:33

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7		1.0	0.89	mg/L			10/28/17 08:46	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 08:46	1
Sulfate	110		5.0	3.5	mg/L			10/29/17 11:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/30/17 16:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/30/17 16:50	5
Barium	0.046		0.0025	0.00049	mg/L		10/27/17 16:54	10/30/17 16:50	5
Silver	0.00026	J B	0.0013	0.00011	mg/L		10/27/17 16:54	10/30/17 16:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/30/17 16:50	5
Boron	0.054		0.050	0.021	mg/L		10/27/17 16:54	10/30/17 16:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/30/17 16:50	5
Calcium	21		0.25	0.13	mg/L		10/27/17 16:54	10/30/17 16:50	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		10/27/17 16:54	10/30/17 16:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/30/17 16:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/30/17 16:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/30/17 16:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/30/17 16:50	5
Selenium	0.0012	J	0.0013	0.00024	mg/L		10/27/17 16:54	10/30/17 16:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/30/17 16:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000094	J	0.00020	0.000070	mg/L		10/31/17 10:54	11/09/17 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-17

Date Collected: 10/26/17 12:05

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			10/28/17 09:08	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 09:08	1
Sulfate	61		5.0	3.5	mg/L			10/29/17 11:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/30/17 16:54	5
Arsenic	0.00087	J	0.0013	0.00046	mg/L		10/27/17 16:54	10/30/17 16:54	5
Barium	0.038		0.0025	0.00049	mg/L		10/27/17 16:54	10/30/17 16:54	5
Silver	<0.00011		0.0013	0.00011	mg/L		10/27/17 16:54	10/30/17 16:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/30/17 16:54	5
Boron	0.023	J	0.050	0.021	mg/L		10/27/17 16:54	10/30/17 16:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/30/17 16:54	5
Calcium	13		0.25	0.13	mg/L		10/27/17 16:54	10/30/17 16:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/30/17 16:54	5
Cobalt	0.021		0.0025	0.00040	mg/L		10/27/17 16:54	10/30/17 16:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/30/17 16:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/30/17 16:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/30/17 16:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/30/17 16:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/30/17 16:54	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		10/31/17 10:54	11/09/17 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/31/17 12:03	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: DUP-1

Date Collected: 10/26/17 00:00

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		1.0	0.89	mg/L			10/28/17 09:31	1
Fluoride	0.13	J	0.20	0.082	mg/L			10/28/17 09:31	1
Sulfate	73		5.0	3.5	mg/L			10/29/17 12:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/30/17 16:59	5
Arsenic	0.00072	J	0.0013	0.00046	mg/L		10/27/17 16:54	10/30/17 16:59	5
Barium	0.042		0.0025	0.00049	mg/L		10/27/17 16:54	10/30/17 16:59	5
Silver	0.00025	J B	0.0013	0.00011	mg/L		10/27/17 16:54	10/30/17 16:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/30/17 16:59	5
Boron	1.4		0.050	0.021	mg/L		10/27/17 16:54	10/30/17 16:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/30/17 16:59	5
Calcium	54		0.25	0.13	mg/L		10/27/17 16:54	10/30/17 16:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/30/17 16:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/30/17 16:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/30/17 16:59	5
Lithium	0.0040	J	0.0050	0.0032	mg/L		10/27/17 16:54	10/30/17 16:59	5
Molybdenum	0.040		0.015	0.00085	mg/L		10/27/17 16:54	10/30/17 16:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/30/17 16:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/30/17 16:59	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		10/31/17 10:54	11/09/17 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	300		5.0	3.4	mg/L			10/28/17 15:35	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: EB-1-10-25-17

Date Collected: 10/25/17 09:30

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373599	10/28/17 00:24	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 15:49	DRE	TAL PEN
Total/NA	Prep	7470A			373541	10/27/17 11:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	374157	10/31/17 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Client Sample ID: ARGWC-9

Date Collected: 10/25/17 09:55

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 02:41	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 15:53	DRE	TAL PEN
Total/NA	Prep	7470A			373541	10/27/17 11:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	374157	10/31/17 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Client Sample ID: ARGWA-13

Date Collected: 10/25/17 09:50

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	373874	10/29/17 06:38	JAW	TAL PEN
Total/NA	Analysis	300.0		20	374008	10/30/17 19:59	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 16:16	DRE	TAL PEN
Total/NA	Prep	7470A			373541	10/27/17 11:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	374157	10/31/17 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Client Sample ID: ARGWA-3

Date Collected: 10/25/17 18:30

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 03:49	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 16:20	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 09:43	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-3

Date Collected: 10/25/17 18:30

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Client Sample ID: ARGWA-5

Date Collected: 10/25/17 14:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 04:12	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 16:47	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 09:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Client Sample ID: ARGWA-12

Date Collected: 10/25/17 15:50

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 04:35	JAW	TAL PEN
Total/NA	Analysis	300.0		1	373874	10/29/17 06:06	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 16:52	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 09:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Client Sample ID: ARGWA-14

Date Collected: 10/25/17 11:45

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 04:57	JAW	TAL PEN
Total/NA	Analysis	300.0		1	373874	10/29/17 07:41	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 16:56	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 09:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373790	10/29/17 08:23	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-145106-8

Date Collected: 10/25/17 11:50

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 06:06	JAW	TAL PEN
Total/NA	Analysis	300.0		5	373874	10/29/17 08:13	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 17:01	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	373901	10/28/17 17:05	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 09:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: FB-1-10-25-17

Lab Sample ID: 400-145106-9

Date Collected: 10/25/17 14:30

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 06:29	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 17:10	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: ARGWC-7

Lab Sample ID: 400-145106-10

Date Collected: 10/25/17 17:40

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 06:51	JAW	TAL PEN
Total/NA	Analysis	300.0		1	373874	10/29/17 08:44	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 17:14	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: ARGWC-8

Lab Sample ID: 400-145106-11

Date Collected: 10/26/17 10:25

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 07:14	JAW	TAL PEN
Total/NA	Analysis	300.0		5	374203	10/31/17 21:45	JAW	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-145106-11

Date Collected: 10/26/17 10:25

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 17:19	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: ARGWC-10

Lab Sample ID: 400-145106-12

Date Collected: 10/26/17 12:40

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 07:37	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 17:23	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: ARGWC-15

Lab Sample ID: 400-145106-13

Date Collected: 10/26/17 09:55

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 08:00	JAW	TAL PEN
Total/NA	Analysis	300.0		1	373874	10/29/17 10:50	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	373901	10/28/17 17:28	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: ARGWC-16

Lab Sample ID: 400-145106-14

Date Collected: 10/26/17 13:25

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 08:46	JAW	TAL PEN
Total/NA	Analysis	300.0		5	373874	10/29/17 11:22	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	374052	10/30/17 16:50	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:15	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-145106-14

Date Collected: 10/26/17 13:25

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: ARGWC-17

Lab Sample ID: 400-145106-15

Date Collected: 10/26/17 12:05

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 09:08	JAW	TAL PEN
Total/NA	Analysis	300.0		5	373874	10/29/17 11:53	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	374052	10/30/17 16:54	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	374053	10/31/17 12:03	TET	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-145106-16

Date Collected: 10/26/17 00:00

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	373685	10/28/17 09:31	JAW	TAL PEN
Total/NA	Analysis	300.0		5	373874	10/29/17 12:25	JAW	TAL PEN
Total Recoverable	Prep	3005A			373649	10/27/17 16:54	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	374052	10/30/17 16:59	DRE	TAL PEN
Total/NA	Prep	7470A			374047	10/31/17 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	375335	11/09/17 10:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	373729	10/28/17 15:35	TET	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

HPLC/IC

Analysis Batch: 373599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total/NA	Water	300.0	
MB 400-373599/4	Method Blank	Total/NA	Water	300.0	
LCS 400-373599/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-373599/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144933-B-2 MS	Matrix Spike	Total/NA	Water	300.0	
400-144933-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 373685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-2	ARGWC-9	Total/NA	Water	300.0	
400-145106-4	ARGWA-3	Total/NA	Water	300.0	
400-145106-5	ARGWA-5	Total/NA	Water	300.0	
400-145106-6	ARGWA-12	Total/NA	Water	300.0	
400-145106-7	ARGWA-14	Total/NA	Water	300.0	
400-145106-8	ARGWC-18	Total/NA	Water	300.0	
400-145106-9	FB-1-10-25-17	Total/NA	Water	300.0	
400-145106-10	ARGWC-7	Total/NA	Water	300.0	
400-145106-11	ARGWC-8	Total/NA	Water	300.0	
400-145106-12	ARGWC-10	Total/NA	Water	300.0	
400-145106-13	ARGWC-15	Total/NA	Water	300.0	
400-145106-14	ARGWC-16	Total/NA	Water	300.0	
400-145106-15	ARGWC-17	Total/NA	Water	300.0	
400-145106-16	DUP-1	Total/NA	Water	300.0	
MB 400-373685/36	Method Blank	Total/NA	Water	300.0	
LCS 400-373685/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-373685/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-145106-2 MS	ARGWC-9	Total/NA	Water	300.0	
400-145106-2 MSD	ARGWC-9	Total/NA	Water	300.0	

Analysis Batch: 373874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-3	ARGWA-13	Total/NA	Water	300.0	
400-145106-6	ARGWA-12	Total/NA	Water	300.0	
400-145106-7	ARGWA-14	Total/NA	Water	300.0	
400-145106-8	ARGWC-18	Total/NA	Water	300.0	
400-145106-10	ARGWC-7	Total/NA	Water	300.0	
400-145106-13	ARGWC-15	Total/NA	Water	300.0	
400-145106-14	ARGWC-16	Total/NA	Water	300.0	
400-145106-15	ARGWC-17	Total/NA	Water	300.0	
400-145106-16	DUP-1	Total/NA	Water	300.0	
MB 400-373874/4	Method Blank	Total/NA	Water	300.0	
LCS 400-373874/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-373874/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144909-I-7 MS	Matrix Spike	Total/NA	Water	300.0	
400-144909-I-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 374008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-3	ARGWA-13	Total/NA	Water	300.0	
MB 400-374008/11	Method Blank	Total/NA	Water	300.0	
LCS 400-374008/12	Lab Control Sample	Total/NA	Water	300.0	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

HPLC/IC (Continued)

Analysis Batch: 374008 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-374008/13	Lab Control Sample Dup	Total/NA	Water	300.0	
400-145106-3 MS	ARGWA-13	Total/NA	Water	300.0	
400-145106-3 MSD	ARGWA-13	Total/NA	Water	300.0	

Analysis Batch: 374203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-11	ARGWC-8	Total/NA	Water	300.0	
MB 400-374203/13	Method Blank	Total/NA	Water	300.0	
LCS 400-374203/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-374203/15	Lab Control Sample Dup	Total/NA	Water	300.0	
400-145047-A-9 MS	Matrix Spike	Total/NA	Water	300.0	
400-145047-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 373541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total/NA	Water	7470A	
400-145106-2	ARGWC-9	Total/NA	Water	7470A	
400-145106-3	ARGWA-13	Total/NA	Water	7470A	
MB 400-373541/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-373541/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144981-C-2-C MS	Matrix Spike	Total/NA	Water	7470A	
400-144981-C-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 373649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total Recoverable	Water	3005A	
400-145106-2	ARGWC-9	Total Recoverable	Water	3005A	
400-145106-3	ARGWA-13	Total Recoverable	Water	3005A	
400-145106-4	ARGWA-3	Total Recoverable	Water	3005A	
400-145106-5	ARGWA-5	Total Recoverable	Water	3005A	
400-145106-6	ARGWA-12	Total Recoverable	Water	3005A	
400-145106-7	ARGWA-14	Total Recoverable	Water	3005A	
400-145106-8	ARGWC-18	Total Recoverable	Water	3005A	
400-145106-8 - DL	ARGWC-18	Total Recoverable	Water	3005A	
400-145106-9	FB-1-10-25-17	Total Recoverable	Water	3005A	
400-145106-10	ARGWC-7	Total Recoverable	Water	3005A	
400-145106-11	ARGWC-8	Total Recoverable	Water	3005A	
400-145106-12	ARGWC-10	Total Recoverable	Water	3005A	
400-145106-13	ARGWC-15	Total Recoverable	Water	3005A	
400-145106-14	ARGWC-16	Total Recoverable	Water	3005A	
400-145106-15	ARGWC-17	Total Recoverable	Water	3005A	
400-145106-16	DUP-1	Total Recoverable	Water	3005A	
MB 400-373649/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-373649/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-145106-2 MS	ARGWC-9	Total Recoverable	Water	3005A	
400-145106-2 MSD	ARGWC-9	Total Recoverable	Water	3005A	

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Metals (Continued)

Analysis Batch: 373901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total Recoverable	Water	6020	373649
400-145106-2	ARGWC-9	Total Recoverable	Water	6020	373649
400-145106-3	ARGWA-13	Total Recoverable	Water	6020	373649
400-145106-4	ARGWA-3	Total Recoverable	Water	6020	373649
400-145106-5	ARGWA-5	Total Recoverable	Water	6020	373649
400-145106-6	ARGWA-12	Total Recoverable	Water	6020	373649
400-145106-7	ARGWA-14	Total Recoverable	Water	6020	373649
400-145106-8	ARGWC-18	Total Recoverable	Water	6020	373649
400-145106-8 - DL	ARGWC-18	Total Recoverable	Water	6020	373649
400-145106-9	FB-1-10-25-17	Total Recoverable	Water	6020	373649
400-145106-10	ARGWC-7	Total Recoverable	Water	6020	373649
400-145106-11	ARGWC-8	Total Recoverable	Water	6020	373649
400-145106-12	ARGWC-10	Total Recoverable	Water	6020	373649
400-145106-13	ARGWC-15	Total Recoverable	Water	6020	373649
MB 400-373649/1-A ^5	Method Blank	Total Recoverable	Water	6020	373649
LCS 400-373649/2-A	Lab Control Sample	Total Recoverable	Water	6020	373649
400-145106-2 MS	ARGWC-9	Total Recoverable	Water	6020	373649
400-145106-2 MSD	ARGWC-9	Total Recoverable	Water	6020	373649

Prep Batch: 374047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-4	ARGWA-3	Total/NA	Water	7470A	
400-145106-5	ARGWA-5	Total/NA	Water	7470A	
400-145106-6	ARGWA-12	Total/NA	Water	7470A	
400-145106-7	ARGWA-14	Total/NA	Water	7470A	
400-145106-8	ARGWC-18	Total/NA	Water	7470A	
400-145106-9	FB-1-10-25-17	Total/NA	Water	7470A	
400-145106-10	ARGWC-7	Total/NA	Water	7470A	
400-145106-11	ARGWC-8	Total/NA	Water	7470A	
400-145106-12	ARGWC-10	Total/NA	Water	7470A	
400-145106-13	ARGWC-15	Total/NA	Water	7470A	
400-145106-14	ARGWC-16	Total/NA	Water	7470A	
400-145106-15	ARGWC-17	Total/NA	Water	7470A	
400-145106-16	DUP-1	Total/NA	Water	7470A	
MB 400-374047/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-374047/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-145106-4 MS	ARGWA-3	Total/NA	Water	7470A	
400-145106-4 MSD	ARGWA-3	Total/NA	Water	7470A	

Prep Batch: 374051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-374051/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-374051/15-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 374052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-14	ARGWC-16	Total Recoverable	Water	6020	373649
400-145106-15	ARGWC-17	Total Recoverable	Water	6020	373649
400-145106-16	DUP-1	Total Recoverable	Water	6020	373649

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Metals (Continued)

Analysis Batch: 374157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total/NA	Water	7470A	373541
400-145106-2	ARGWC-9	Total/NA	Water	7470A	373541
400-145106-3	ARGWA-13	Total/NA	Water	7470A	373541
MB 400-373541/14-A	Method Blank	Total/NA	Water	7470A	373541
LCS 400-373541/15-A	Lab Control Sample	Total/NA	Water	7470A	373541
400-144981-C-2-C MS	Matrix Spike	Total/NA	Water	7470A	373541
400-144981-C-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	373541

Analysis Batch: 375335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-4	ARGWA-3	Total/NA	Water	7470A	374047
400-145106-5	ARGWA-5	Total/NA	Water	7470A	374047
400-145106-6	ARGWA-12	Total/NA	Water	7470A	374047
400-145106-7	ARGWA-14	Total/NA	Water	7470A	374047
400-145106-8	ARGWC-18	Total/NA	Water	7470A	374047
400-145106-9	FB-1-10-25-17	Total/NA	Water	7470A	374047
400-145106-10	ARGWC-7	Total/NA	Water	7470A	374047
400-145106-11	ARGWC-8	Total/NA	Water	7470A	374047
400-145106-12	ARGWC-10	Total/NA	Water	7470A	374047
400-145106-13	ARGWC-15	Total/NA	Water	7470A	374047
400-145106-14	ARGWC-16	Total/NA	Water	7470A	374047
400-145106-15	ARGWC-17	Total/NA	Water	7470A	374047
400-145106-16	DUP-1	Total/NA	Water	7470A	374047
MB 400-374047/14-A	Method Blank	Total/NA	Water	7470A	374047
LCS 400-374047/15-A	Lab Control Sample	Total/NA	Water	7470A	374047
400-145106-4 MS	ARGWA-3	Total/NA	Water	7470A	374047
400-145106-4 MSD	ARGWA-3	Total/NA	Water	7470A	374047

Analysis Batch: 375365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-374051/14-A	Method Blank	Total/NA	Water	7470A	374051
LCS 400-374051/15-A	Lab Control Sample	Total/NA	Water	7470A	374051

General Chemistry

Analysis Batch: 373729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-16	DUP-1	Total/NA	Water	SM 2540C	
MB 400-373729/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-373729/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-145069-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 373790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total/NA	Water	SM 2540C	
400-145106-2	ARGWC-9	Total/NA	Water	SM 2540C	
400-145106-3	ARGWA-13	Total/NA	Water	SM 2540C	
400-145106-4	ARGWA-3	Total/NA	Water	SM 2540C	
400-145106-5	ARGWA-5	Total/NA	Water	SM 2540C	
400-145106-6	ARGWA-12	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

General Chemistry (Continued)

Analysis Batch: 373790 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-7	ARGWA-14	Total/NA	Water	SM 2540C	
MB 400-373790/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-373790/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-145086-G-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 374053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-8	ARGWC-18	Total/NA	Water	SM 2540C	
400-145106-9	FB-1-10-25-17	Total/NA	Water	SM 2540C	
400-145106-10	ARGWC-7	Total/NA	Water	SM 2540C	
400-145106-11	ARGWC-8	Total/NA	Water	SM 2540C	
400-145106-12	ARGWC-10	Total/NA	Water	SM 2540C	
400-145106-13	ARGWC-15	Total/NA	Water	SM 2540C	
400-145106-14	ARGWC-16	Total/NA	Water	SM 2540C	
400-145106-15	ARGWC-17	Total/NA	Water	SM 2540C	
MB 400-374053/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-374053/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-145106-8 DU	ARGWC-18	Total/NA	Water	SM 2540C	
400-145106-14 DU	ARGWC-16	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-373599/4
Matrix: Water
Analysis Batch: 373599

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/27/17 13:21	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/17 13:21	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/17 13:21	1

Lab Sample ID: LCS 400-373599/5
Matrix: Water
Analysis Batch: 373599

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.9		mg/L		109	90 - 110

Lab Sample ID: LCSD 400-373599/6
Matrix: Water
Analysis Batch: 373599

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	1	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	1	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

Lab Sample ID: 400-144933-B-2 MS
Matrix: Water
Analysis Batch: 373599

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	63	E	10.0	71.7	E 4	mg/L		85	80 - 120
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120
Sulfate	1.2		10.0	12.5		mg/L		113	80 - 120

Lab Sample ID: 400-144933-B-2 MSD
Matrix: Water
Analysis Batch: 373599

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	63	E	10.0	71.4	E 4	mg/L		83	80 - 120	0	20
Fluoride	<0.082		10.0	10.8		mg/L		108	80 - 120	1	20
Sulfate	1.2		10.0	12.4		mg/L		112	80 - 120	1	20

Lab Sample ID: MB 400-373685/36
Matrix: Water
Analysis Batch: 373685

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/17 01:32	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 01:32	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/17 01:32	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-373685/37
Matrix: Water
Analysis Batch: 373685

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.1		mg/L		101	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	11.1	*	mg/L		111	90 - 110

Lab Sample ID: LCSD 400-373685/38
Matrix: Water
Analysis Batch: 373685

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	1	15
Sulfate	10.0	11.2	*	mg/L		112	90 - 110	1	15

Lab Sample ID: 400-145106-2 MS
Matrix: Water
Analysis Batch: 373685

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.3		10.0	14.7		mg/L		94	80 - 120
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120
Sulfate	0.95	J *	10.0	12.1		mg/L		111	80 - 120

Lab Sample ID: 400-145106-2 MSD
Matrix: Water
Analysis Batch: 373685

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.3		10.0	14.6		mg/L		94	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	2	20
Sulfate	0.95	J *	10.0	12.1		mg/L		112	80 - 120	0	20

Lab Sample ID: MB 400-373874/4
Matrix: Water
Analysis Batch: 373874

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/17 21:42	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/17 21:42	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/17 21:42	1

Lab Sample ID: LCS 400-373874/5
Matrix: Water
Analysis Batch: 373874

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.77		mg/L		98	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-373874/6
Matrix: Water
Analysis Batch: 373874

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.77		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	15

Lab Sample ID: 400-144909-I-7 MS
Matrix: Water
Analysis Batch: 373874

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	140		50.0	190		mg/L		96	80 - 120
Fluoride	<0.41		50.0	50.6		mg/L		101	80 - 120
Sulfate	7.2		50.0	58.3		mg/L		102	80 - 120

Lab Sample ID: 400-144909-I-7 MSD
Matrix: Water
Analysis Batch: 373874

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	140		50.0	190		mg/L		97	80 - 120	0	20
Fluoride	<0.41		50.0	50.6		mg/L		101	80 - 120	0	20
Sulfate	7.2		50.0	58.5		mg/L		103	80 - 120	0	20

Lab Sample ID: MB 400-374008/11
Matrix: Water
Analysis Batch: 374008

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/30/17 18:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/17 18:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/17 18:24	1

Lab Sample ID: LCS 400-374008/12
Matrix: Water
Analysis Batch: 374008

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.77		mg/L		98	90 - 110
Fluoride	10.0	9.95		mg/L		99	90 - 110
Sulfate	10.0	9.90		mg/L		99	90 - 110

Lab Sample ID: LCSD 400-374008/13
Matrix: Water
Analysis Batch: 374008

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.85		mg/L		98	90 - 110	1	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	1	15

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 400-145106-3 MS
Matrix: Water
Analysis Batch: 374008

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<18		200	203		mg/L		101	80 - 120
Fluoride	<1.6		200	205		mg/L		103	80 - 120
Sulfate	580		200	760		mg/L		92	80 - 120

Lab Sample ID: 400-145106-3 MSD
Matrix: Water
Analysis Batch: 374008

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<18		200	203		mg/L		101	80 - 120	0	20
Fluoride	<1.6		200	205		mg/L		102	80 - 120	0	20
Sulfate	580		200	762		mg/L		93	80 - 120	0	20

Lab Sample ID: MB 400-374203/13
Matrix: Water
Analysis Batch: 374203

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/31/17 18:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/31/17 18:35	1
Sulfate	<0.70		1.0	0.70	mg/L			10/31/17 18:35	1

Lab Sample ID: LCS 400-374203/14
Matrix: Water
Analysis Batch: 374203

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.95		mg/L		99	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

Lab Sample ID: LCSD 400-374203/15
Matrix: Water
Analysis Batch: 374203

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.93		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	9.87		mg/L		99	90 - 110	3	15

Lab Sample ID: 400-145047-A-9 MS
Matrix: Water
Analysis Batch: 374203

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	770		200	943		mg/L		85	80 - 120
Fluoride	<1.6		200	196		mg/L		98	80 - 120
Sulfate	<14		200	205		mg/L		102	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 400-145047-A-9 MSD
Matrix: Water
Analysis Batch: 374203

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	770		200	944		mg/L		86	80 - 120	0	20
Fluoride	<1.6		200	196		mg/L		98	80 - 120	0	20
Sulfate	<14		200	206		mg/L		103	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-373649/1-A ^5
Matrix: Water
Analysis Batch: 373901

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 373649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/27/17 16:54	10/28/17 15:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/27/17 16:54	10/28/17 15:36	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/27/17 16:54	10/28/17 15:36	5
Silver	0.000420	J	0.0013	0.00011	mg/L		10/27/17 16:54	10/28/17 15:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 15:36	5
Boron	<0.021		0.050	0.021	mg/L		10/27/17 16:54	10/28/17 15:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/27/17 16:54	10/28/17 15:36	5
Calcium	<0.13		0.25	0.13	mg/L		10/27/17 16:54	10/28/17 15:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/27/17 16:54	10/28/17 15:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/27/17 16:54	10/28/17 15:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/27/17 16:54	10/28/17 15:36	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/27/17 16:54	10/28/17 15:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/27/17 16:54	10/28/17 15:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/27/17 16:54	10/28/17 15:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/27/17 16:54	10/28/17 15:36	5

Lab Sample ID: LCS 400-373649/2-A
Matrix: Water
Analysis Batch: 373901

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 373649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0537		mg/L		107	80 - 120
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0523		mg/L		105	80 - 120
Silver	0.0500	0.0511		mg/L		102	80 - 120
Beryllium	0.0500	0.0523		mg/L		105	80 - 120
Boron	0.100	0.0956		mg/L		96	80 - 120
Cadmium	0.0500	0.0520		mg/L		104	80 - 120
Calcium	5.00	4.94		mg/L		99	80 - 120
Chromium	0.0500	0.0481		mg/L		96	80 - 120
Cobalt	0.0500	0.0480		mg/L		96	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0537		mg/L		107	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Selenium	0.0500	0.0525		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

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

Lab Sample ID: 400-145106-2 MS

Matrix: Water

Analysis Batch: 373901

Client Sample ID: ARGWC-9

Prep Type: Total Recoverable

Prep Batch: 373649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	%Rec.
Antimony	<0.0010		0.0500	0.0562		mg/L		112	75 - 125	
Antimony	<0.0010		0.0500	0.0562		mg/L		112	75 - 125	
Arsenic	<0.00046		0.0500	0.0534		mg/L		107	75 - 125	
Arsenic	<0.00046		0.0500	0.0534		mg/L		107	75 - 125	
Barium	0.049		0.0500	0.103		mg/L		107	75 - 125	
Barium	0.049		0.0500	0.103		mg/L		107	75 - 125	
Silver	<0.00011		0.0500	0.0520		mg/L		104	75 - 125	
Silver	<0.00011		0.0500	0.0520		mg/L		104	75 - 125	
Beryllium	<0.00034		0.0500	0.0529		mg/L		106	75 - 125	
Beryllium	<0.00034		0.0500	0.0529		mg/L		106	75 - 125	
Boron	<0.021		0.100	0.0818		mg/L		82	75 - 125	
Boron	<0.021		0.100	0.0818		mg/L		82	75 - 125	
Cadmium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	
Cadmium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	
Calcium	6.1		5.00	11.1		mg/L		99	75 - 125	
Calcium	6.1		5.00	11.1		mg/L		99	75 - 125	
Chromium	0.0094		0.0500	0.0581		mg/L		98	75 - 125	
Chromium	0.0094		0.0500	0.0581		mg/L		98	75 - 125	
Cobalt	<0.00040		0.0500	0.0494		mg/L		99	75 - 125	
Cobalt	<0.00040		0.0500	0.0494		mg/L		99	75 - 125	
Lead	<0.00035		0.0500	0.0495		mg/L		99	75 - 125	
Lead	<0.00035		0.0500	0.0495		mg/L		99	75 - 125	
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125	
Lithium	<0.0032		0.0500	0.0560		mg/L		112	75 - 125	
Molybdenum	<0.00085		0.100	0.104		mg/L		104	75 - 125	
Molybdenum	<0.00085		0.100	0.104		mg/L		104	75 - 125	
Selenium	0.00029	J	0.0500	0.0562		mg/L		112	75 - 125	
Selenium	0.00029	J	0.0500	0.0562		mg/L		112	75 - 125	
Thallium	<0.00085		0.0100	0.0105		mg/L		105	75 - 125	
Thallium	<0.00085		0.0100	0.0105		mg/L		105	75 - 125	

Lab Sample ID: 400-145106-2 MSD

Matrix: Water

Analysis Batch: 373901

Client Sample ID: ARGWC-9

Prep Type: Total Recoverable

Prep Batch: 373649

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0549		mg/L		110	75 - 125	2	20
Antimony	<0.0010		0.0500	0.0549		mg/L		110	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0531		mg/L		106	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0531		mg/L		106	75 - 125	1	20
Barium	0.049		0.0500	0.104		mg/L		108	75 - 125	1	20
Barium	0.049		0.0500	0.104		mg/L		108	75 - 125	1	20
Silver	<0.00011		0.0500	0.0522		mg/L		104	75 - 125	0	20
Silver	<0.00011		0.0500	0.0522		mg/L		104	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	0	20
Boron	<0.021		0.100	0.0811		mg/L		81	75 - 125	1	20
Boron	<0.021		0.100	0.0811		mg/L		81	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

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

Lab Sample ID: 400-145106-2 MSD
Matrix: Water
Analysis Batch: 373901

Client Sample ID: ARGWC-9
Prep Type: Total Recoverable
Prep Batch: 373649

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cadmium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0527		mg/L		105	75 - 125	2	20
Calcium	6.1		5.00	11.1		mg/L		100	75 - 125	0	20
Calcium	6.1		5.00	11.1		mg/L		100	75 - 125	0	20
Chromium	0.0094		0.0500	0.0577		mg/L		97	75 - 125	1	20
Chromium	0.0094		0.0500	0.0577		mg/L		97	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0493		mg/L		99	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0493		mg/L		99	75 - 125	0	20
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125	0	20
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0564		mg/L		113	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0564		mg/L		113	75 - 125	1	20
Molybdenum	<0.00085		0.100	0.103		mg/L		103	75 - 125	2	20
Molybdenum	<0.00085		0.100	0.103		mg/L		103	75 - 125	2	20
Selenium	0.00029	J	0.0500	0.0552		mg/L		110	75 - 125	2	20
Selenium	0.00029	J	0.0500	0.0552		mg/L		110	75 - 125	2	20
Thallium	<0.00085		0.0100	0.0106		mg/L		106	75 - 125	1	20
Thallium	<0.00085		0.0100	0.0106		mg/L		106	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-373541/14-A
Matrix: Water
Analysis Batch: 374157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 373541

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		10/27/17 09:38	10/31/17 09:37	1

Lab Sample ID: LCS 400-373541/15-A
Matrix: Water
Analysis Batch: 374157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 373541

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.00101	0.000992		mg/L		98	80 - 120

Lab Sample ID: 400-144981-C-2-C MS
Matrix: Water
Analysis Batch: 374157

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 373541

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				Limits	
Mercury	<0.000070		0.00201	0.00193		mg/L		96	80 - 120	

Lab Sample ID: 400-144981-C-2-D MSD
Matrix: Water
Analysis Batch: 374157

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 373541

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120	3	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

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

Lab Sample ID: MB 400-374047/14-A
Matrix: Water
Analysis Batch: 375335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 374047

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/31/17 10:50	11/09/17 09:40	1

Lab Sample ID: LCS 400-374047/15-A
Matrix: Water
Analysis Batch: 375335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 374047

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-145106-4 MS
Matrix: Water
Analysis Batch: 375335

Client Sample ID: ARGWA-3
Prep Type: Total/NA
Prep Batch: 374047

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00201		mg/L		100	80 - 120

Lab Sample ID: 400-145106-4 MSD
Matrix: Water
Analysis Batch: 375335

Client Sample ID: ARGWA-3
Prep Type: Total/NA
Prep Batch: 374047

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00197		mg/L		98	80 - 120	2	20

Lab Sample ID: MB 400-374051/14-A
Matrix: Water
Analysis Batch: 375365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 374051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/31/17 11:02	11/09/17 14:59	1

Lab Sample ID: LCS 400-374051/15-A
Matrix: Water
Analysis Batch: 375365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 374051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00102		mg/L		101	80 - 120

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

Lab Sample ID: MB 400-373729/1
Matrix: Water
Analysis Batch: 373729

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	<3.4		5.0	3.4	mg/L			10/28/17 15:35	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

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

Lab Sample ID: LCS 400-373729/2
Matrix: Water
Analysis Batch: 373729

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	293	260		mg/L		89	78 - 122

Lab Sample ID: 400-145069-A-5 DU
Matrix: Water
Analysis Batch: 373729

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	130		130		mg/L		0	5

Lab Sample ID: MB 400-373790/1
Matrix: Water
Analysis Batch: 373790

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	<3.4		5.0	3.4	mg/L			10/29/17 08:23	1

Lab Sample ID: LCS 400-373790/2
Matrix: Water
Analysis Batch: 373790

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	293	258		mg/L		88	78 - 122

Lab Sample ID: 400-145086-G-2 DU
Matrix: Water
Analysis Batch: 373790

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	280		284		mg/L		1	5

Lab Sample ID: MB 400-374053/1
Matrix: Water
Analysis Batch: 374053

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	<3.4		5.0	3.4	mg/L			10/31/17 12:03	1

Lab Sample ID: LCS 400-374053/2
Matrix: Water
Analysis Batch: 374053

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	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-145106-8 DU
Matrix: Water
Analysis Batch: 374053

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	380		386		mg/L		1	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
 SDG: Plant Arkwright Ash Pond 3

Lab Sample ID: 400-145106-14 DU
Matrix: Water
Analysis Batch: 374053

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	170		172		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



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CHAIN OF CUSTODY RECORD

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		L A B		P - PLASTIC		1 - HCl, ≤6°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		P P P P P P P P		A - AMBER GLASS		2 - H ₂ SO ₄ , ≤6°C	
241 Ralph McGill Blvd SE B10185		3 3 3 3 3 3 3 3		G - CLEAR GLASS		3 - HNO ₃	
Atlanta, GA 30308		Metals App. III & IV (EPA 6020/7470)		V - VOA VIAL		4 - NaOH, ≤6°C	
404-506-7239		Metals (see additional list below) (EPA 6020)		S - STERILE		5 - NaOH/ZnAc, ≤6°C	
REPORT TO:	Joju Abraham	Metals App. III & IV (EPA 6020/7470)		O - OTHER		6 - Na ₂ S ₂ O ₃ , ≤6°C	
CC:	Maria Padilla	Metals (see additional list below) (EPA 6020)				7 - ≤6°C not frozen	
HEALTH:	Heath McCorkle	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)					
PO #:	laburch@southernco.com	Radium 226 & 228 (SW-846 9315/9320)					
PROJECT NAME/STATE:	Plant Arkwright Pond 3						
PROJECT #:	Phase II CCR & State D&O						
Collection DATE	Collection TIME	MATRIX CODE*	COMB	G R A B	SAMPLE IDENTIFICATION	CONTAINER TYPE	
10-25-17	1830	GW	✓	✓	ARGWA-3	P - PLASTIC	
10-25-17	1440	GW	✓	✓	ARGWA-5	A - AMBER GLASS	
10-25-17	1550	GW	✓	✓	ARGWA-12	G - CLEAR GLASS	
10-25-17	1145	GW	✓	✓	ARGWA-14	V - VOA VIAL	
10-25-17	1150	GW	✓	✓	ARGWC-18	S - STERILE	
10-25-17	1430	W	✓	✓	FB-1-10-25-17	O - OTHER	
10-25-17	1740	GW	✓	✓	ARGWC-7		
SAMPLED BY AND TITLE:		RELINQUISHED BY:		DATE/TIME:		FOR LAB USE ONLY	
C. Parker, J. Bessford (AC)		[Signature]		10-25-17 1845		LAB #:	
RECEIVED BY:		RELINQUISHED BY:		DATE/TIME:		Entered into LIMS:	
[Signature]		[Signature]		10-25-17 1840		Tracking #:	
RECEIVED BY LAB:		SAMPLE SHIPPED VIA:		UPS		CLIENT OTHER FS	
pH Checked: Yes No NA		Custody Seal: Intact Broken Not Present		# of Coolers			
Ice: Yes No NA		Temperature: Min: Max:		2.2C IR8 TP 1.3C IR8 TP			



Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se

Plant Arkwright - Ash Pond 3 COC





CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239 REPORT TO: Joju Abraham REQUESTED COMPLETION DATE: PROJECT NAME/STATE: Plant Arkwright Pond 3		CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		
PROJECT #: Phase II CCR & State D&O				
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	SAMPLE IDENTIFICATION
10-26-17	1025	GW	✓	AR6WC-8
10-26-17	1240	GW	✓	AR6WC-10
10-26-17	0955	GW	✓	AR6WC-15
10-26-17	1325	GW	✓	AR6WC-16
10-26-17	1205	GW	✓	AR6WC-17
10-26-17	---	GW	✓	DUP-1

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED															
		# of	P	P	P	P	P	P	P	P	P						
3		Metals App. III & IV (EPA 6020/7470)	✓	Metals (see additional list below) (EPA 6020)	✓	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	✓	Radium 226 & 228 (SW-846 9315/9320)	✓								

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED
P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	

D W	W W	G W	S W	S T	W
DRINKING WATER	WASTEWATER	GROUNDWATER	SURFACE WATER	STORM WATER	WATER
S - SOIL	SL - SLUDGE	SD - SOLID	A - AIR	L - LIQUID	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION
extra Rad here

LAB #:	DATE/TIME:	RELINQUISHED BY:
1548	10-26-17 1548	[Signature]
Tracking #:	DATE/TIME:	RELINQUISHED BY:
	10-26-17 1541	[Signature]

UP	FED-EX	USPS	COURIER	CLIENT	OTHER	FS
✓						

Intact	Broken	Not Present
✓		

Temperature:	Min:	Max:
10-27-17 0833		

2.8C IR8 TP

Plant Arkwright - Ash Pond 3 COC

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239

REPORT TO: Joju Abraham CC: Maria Padilla Health McCorkle

REQUESTED COMPLETION DATE: PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Arkwright Pond 3

PROJECT #: Phase II CCR & State D&O

Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION			ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION
			C O M P	G R A B	REMARKS/ADDITIONAL INFORMATION			
10-25-17	0930	W	✓	✓	✓	(EPA 6020/7470) Metals App. III & IV	P - PLASTIC	1 - HCl, ≤6°C
10-25-17	0955	GW	✓	✓	✓	(EPA 6020) Metals (see additional list below)	A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
10-25-17	0950	GW	✓	✓	✓	(EPA 300.0 & SM 2540C) Cl, F, SO ₄ & TDS	G - CLEAR GLASS	3 - HNO ₃
						(SW-846 9315/9320) Radium 226 & 228	V - VOA VIAL	4 - NaOH, ≤6°C
							S - STERILE	5 - NaOH/ZnAc, ≤6°C
							O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C
								7 - ≤6°C not frozen

CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER

PRESERVATION: 1 - HCl, ≤6°C, 2 - H₂SO₄, ≤6°C, 3 - HNO₃, 4 - NaOH, ≤6°C, 5 - NaOH/ZnAc, ≤6°C, 6 - Na₂S₂O₃, ≤6°C, 7 - ≤6°C not frozen

MATRIX CODES: DW - DRINKING WATER, WW - WASTEWATER, GW - GROUNDWATER, SW - SURFACE WATER, ST - STORM WATER, W - WATER, S - SOIL, SL - SLUDGE, SD - SOLID, A - AIR, L - LIQUID, P - PRODUCT

REMARKS/ADDITIONAL INFORMATION: 400-145106 COC

DATE/TIME: 10-25-17 1015

DATE/TIME: 10-25-17 1040

DATE/TIME: 10-25-17 1040

LAB #: FOR LAB USE ONLY

Entered into LIMS: Tracking #:

RELINQUISHED BY: RELINQUISHED BY: DATE/TIME: 10-25-17 1040

SAMPLE SHIPPED VIA: UPS, FED-EX, USPS, COURIER, CLIENT, OTHER, FS

Temperature: 20.1°C

Checked: Yes No

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se

- 1
- 2
- 3
- 4
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- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-145106-1
SDG Number: Plant Arkwright Ash Pond 3

Login Number: 145106

List Number: 1

Creator: Johnson, Jeremy N

List Source: TestAmerica Pensacola

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.	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	
COC is present.	True	2.9°C, 2.2°C, 1.3°C IR8
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-1
SDG: Plant Arkwright Ash Pond 3

Laboratory: 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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	12-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-145106-2

TestAmerica SDG: Plant Arkwright Ash Pond 3

Client Project/Site: CCR Plant Arkwright

Sampling Event: AP-3

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

11/21/2017 6:07:32 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

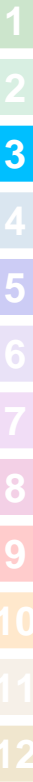
Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

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



Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-145106-1	EB-1-10-25-17	Water	10/25/17 09:30	10/26/17 08:26
400-145106-2	ARGWC-9	Water	10/25/17 09:55	10/26/17 08:26
400-145106-3	ARGWA-13	Water	10/25/17 09:50	10/26/17 08:26
400-145106-4	ARGWA-3	Water	10/25/17 18:30	10/27/17 08:33
400-145106-5	ARGWA-5	Water	10/25/17 14:40	10/27/17 08:33
400-145106-6	ARGWA-12	Water	10/25/17 15:50	10/27/17 08:33
400-145106-7	ARGWA-14	Water	10/25/17 11:45	10/27/17 08:33
400-145106-8	ARGWC-18	Water	10/25/17 11:50	10/27/17 08:33
400-145106-9	FB-1-10-25-17	Water	10/25/17 14:30	10/27/17 08:33
400-145106-10	ARGWC-7	Water	10/25/17 17:40	10/27/17 08:33
400-145106-11	ARGWC-8	Water	10/26/17 10:25	10/27/17 08:33
400-145106-12	ARGWC-10	Water	10/26/17 12:40	10/27/17 08:33
400-145106-13	ARGWC-15	Water	10/26/17 09:55	10/27/17 08:33
400-145106-14	ARGWC-16	Water	10/26/17 13:25	10/27/17 08:33
400-145106-15	ARGWC-17	Water	10/26/17 12:05	10/27/17 08:33
400-145106-16	DUP-1	Water	10/26/17 00:00	10/27/17 08:33

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: EB-1-10-25-17

Lab Sample ID: 400-145106-1

Date Collected: 10/25/17 09:30

Matrix: Water

Date Received: 10/26/17 08:26

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0141	U	0.0281	0.0281	1.00	0.0725	pCi/L	10/30/17 09:29	11/21/17 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/30/17 09:29	11/21/17 06:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.499		0.244	0.248	1.00	0.356	pCi/L	10/30/17 09:56	11/06/17 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/30/17 09:56	11/06/17 12:31	1
Y Carrier	78.9		40 - 110					10/30/17 09:56	11/06/17 12:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.484		0.246	0.250	5.00	0.356	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-145106-2

Date Collected: 10/25/17 09:55

Matrix: Water

Date Received: 10/26/17 08:26

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0288	U	0.0429	0.0429	1.00	0.0737	pCi/L	10/30/17 09:29	11/21/17 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					10/30/17 09:29	11/21/17 06:03	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	0.274	0.276	1.00	0.433	pCi/L	10/30/17 09:56	11/06/17 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					10/30/17 09:56	11/06/17 12:31	1
Y Carrier	79.3		40 - 110					10/30/17 09:56	11/06/17 12:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.388	U	0.277	0.279	5.00	0.433	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-145106-3

Date Collected: 10/25/17 09:50

Matrix: Water

Date Received: 10/26/17 08:26

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0841		0.0581	0.0586	1.00	0.0775	pCi/L	10/30/17 09:29	11/21/17 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					10/30/17 09:29	11/21/17 06:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.897		0.264	0.277	1.00	0.333	pCi/L	10/30/17 09:56	11/06/17 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					10/30/17 09:56	11/06/17 12:31	1
Y Carrier	87.1		40 - 110					10/30/17 09:56	11/06/17 12:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.981		0.270	0.283	5.00	0.333	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-3

Date Collected: 10/25/17 18:30

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-4

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	0.0568	U	0.0465	0.0467	1.00	0.0640	pCi/L	10/30/17 09:29	11/21/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					10/30/17 09:29	11/21/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.443		0.263	0.266	1.00	0.402	pCi/L	10/30/17 09:56	11/06/17 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					10/30/17 09:56	11/06/17 12:31	1
Y Carrier	83.7		40 - 110					10/30/17 09:56	11/06/17 12:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.500		0.267	0.270	5.00	0.402	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-5

Date Collected: 10/25/17 14:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-5

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	0.0713		0.0477	0.0482	1.00	0.0565	pCi/L	10/30/17 09:29	11/21/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/30/17 09:29	11/21/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.441		0.242	0.246	1.00	0.363	pCi/L	10/30/17 09:56	11/06/17 12:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/30/17 09:56	11/06/17 12:31	1
Y Carrier	84.9		40 - 110					10/30/17 09:56	11/06/17 12:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.512		0.247	0.251	5.00	0.363	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-145106-6

Date Collected: 10/25/17 15:50

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0749		0.0500	0.0505	1.00	0.0618	pCi/L	10/30/17 09:29	11/21/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/30/17 09:29	11/21/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.513		0.240	0.244	1.00	0.349	pCi/L	10/30/17 09:56	11/06/17 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/30/17 09:56	11/06/17 12:32	1
Y Carrier	88.2		40 - 110					10/30/17 09:56	11/06/17 12:32	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	0.587		0.245	0.249	5.00	0.349	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
 SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-145106-7

Date Collected: 10/25/17 11:45

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104		0.0559	0.0567	1.00	0.0546	pCi/L	10/30/17 09:29	11/21/17 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					10/30/17 09:29	11/21/17 06:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.305	U	0.262	0.264	1.00	0.421	pCi/L	10/30/17 09:56	11/06/17 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					10/30/17 09:56	11/06/17 12:32	1
Y Carrier	83.7		40 - 110					10/30/17 09:56	11/06/17 12:32	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	0.409	U	0.268	0.270	5.00	0.421	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-145106-8

Date Collected: 10/25/17 11:50

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109		0.0566	0.0575	1.00	0.0568	pCi/L	10/30/17 09:29	11/21/17 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					10/30/17 09:29	11/21/17 06:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.236	U	0.220	0.221	1.00	0.356	pCi/L	10/30/17 09:56	11/06/17 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					10/30/17 09:56	11/06/17 12:32	1
Y Carrier	86.4		40 - 110					10/30/17 09:56	11/06/17 12:32	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	0.345	U	0.227	0.228	5.00	0.356	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: FB-1-10-25-17

Lab Sample ID: 400-145106-9

Date Collected: 10/25/17 14:30

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0271	U	0.0362	0.0363	1.00	0.0603	pCi/L	10/30/17 09:29	11/21/17 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/30/17 09:29	11/21/17 06:06	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	0.206	0.206	1.00	0.342	pCi/L	10/30/17 09:56	11/06/17 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/30/17 09:56	11/06/17 12:32	1
Y Carrier	87.1		40 - 110					10/30/17 09:56	11/06/17 12:32	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	0.189	U	0.209	0.209	5.00	0.342	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-7

Date Collected: 10/25/17 17:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0792		0.0555	0.0559	1.00	0.0688	pCi/L	10/30/17 09:29	11/21/17 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/30/17 09:29	11/21/17 06:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.201	U	0.210	0.210	1.00	0.342	pCi/L	10/30/17 09:56	11/06/17 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/30/17 09:56	11/06/17 12:32	1
Y Carrier	89.0		40 - 110					10/30/17 09:56	11/06/17 12:32	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	0.281	U	0.217	0.217	5.00	0.342	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-145106-11

Date Collected: 10/26/17 10:25

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.134		0.0634	0.0645	1.00	0.0639	pCi/L	10/30/17 09:29	11/21/17 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					10/30/17 09:29	11/21/17 06:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.376		0.229	0.232	1.00	0.348	pCi/L	10/30/17 09:56	11/06/17 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					10/30/17 09:56	11/06/17 12:33	1
Y Carrier	84.9		40 - 110					10/30/17 09:56	11/06/17 12:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.510		0.238	0.241	5.00	0.348	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-10

Date Collected: 10/26/17 12:40

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0725		0.0544	0.0548	1.00	0.0704	pCi/L	10/30/17 09:29	11/21/17 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/30/17 09:29	11/21/17 06:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.261	U	0.231	0.232	1.00	0.371	pCi/L	10/30/17 09:56	11/06/17 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/30/17 09:56	11/06/17 12:34	1
Y Carrier	86.0		40 - 110					10/30/17 09:56	11/06/17 12:34	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	0.334	U	0.237	0.238	5.00	0.371	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-145106-13

Date Collected: 10/26/17 09:55

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111		0.0668	0.0676	1.00	0.0824	pCi/L	10/30/17 09:29	11/21/17 06:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/30/17 09:29	11/21/17 06:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.408		0.223	0.226	1.00	0.330	pCi/L	10/30/17 09:56	11/06/17 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/30/17 09:56	11/06/17 12:34	1
Y Carrier	86.0		40 - 110					10/30/17 09:56	11/06/17 12:34	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	0.519		0.233	0.236	5.00	0.330	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-145106-14

Date Collected: 10/26/17 13:25

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.243		0.0909	0.0935	1.00	0.0864	pCi/L	10/30/17 09:29	11/21/17 06:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					10/30/17 09:29	11/21/17 06:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.548		0.222	0.228	1.00	0.306	pCi/L	10/30/17 09:56	11/06/17 12:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					10/30/17 09:56	11/06/17 12:34	1
Y Carrier	88.2		40 - 110					10/30/17 09:56	11/06/17 12:34	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	0.790		0.240	0.246	5.00	0.306	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-145106-15

Date Collected: 10/26/17 12:05

Matrix: Water

Date Received: 10/27/17 08:33

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141		0.0721	0.0732	1.00	0.0849	pCi/L	10/30/17 09:29	11/21/17 06:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/30/17 09:29	11/21/17 06:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.34		0.294	0.319	1.00	0.343	pCi/L	10/30/17 09:56	11/06/17 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/30/17 09:56	11/06/17 12:28	1
Y Carrier	88.2		40 - 110					10/30/17 09:56	11/06/17 12:28	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	1.48		0.303	0.327	5.00	0.343	pCi/L		11/21/17 17:18	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: DUP-1
Date Collected: 10/26/17 00:00
Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-16
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	0.0887		0.0611	0.0616	1.00	0.0806	pCi/L	10/30/17 09:35	11/21/17 06:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					10/30/17 09:35	11/21/17 06:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.798		0.246	0.257	1.00	0.315	pCi/L	10/30/17 09:56	11/06/17 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					10/30/17 09:56	11/06/17 12:28	1
Y Carrier	93.8		40 - 110					10/30/17 09:56	11/06/17 12:28	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	0.887		0.253	0.264	5.00	0.315	pCi/L		11/21/17 17:18	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: EB-1-10-25-17

Date Collected: 10/25/17 09:30

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338344	11/21/17 06:03	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-9

Date Collected: 10/25/17 09:55

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338344	11/21/17 06:03	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWA-13

Date Collected: 10/25/17 09:50

Date Received: 10/26/17 08:26

Lab Sample ID: 400-145106-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338344	11/21/17 06:03	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWA-3

Date Collected: 10/25/17 18:30

Date Received: 10/27/17 08:33

Lab Sample ID: 400-145106-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-145106-5

Date Collected: 10/25/17 14:40

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWA-12

Lab Sample ID: 400-145106-6

Date Collected: 10/25/17 15:50

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWA-14

Lab Sample ID: 400-145106-7

Date Collected: 10/25/17 11:45

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-18

Lab Sample ID: 400-145106-8

Date Collected: 10/25/17 11:50

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: FB-1-10-25-17

Lab Sample ID: 400-145106-9

Date Collected: 10/25/17 14:30

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-7

Lab Sample ID: 400-145106-10

Date Collected: 10/25/17 17:40

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335915	11/06/17 12:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-8

Lab Sample ID: 400-145106-11

Date Collected: 10/26/17 10:25

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335869	11/06/17 12:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-10

Lab Sample ID: 400-145106-12

Date Collected: 10/26/17 12:40

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338343	11/21/17 06:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335869	11/06/17 12:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-145106-13

Date Collected: 10/26/17 09:55

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338342	11/21/17 06:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335869	11/06/17 12:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-16

Lab Sample ID: 400-145106-14

Date Collected: 10/26/17 13:25

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338342	11/21/17 06:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335869	11/06/17 12:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: ARGWC-17

Lab Sample ID: 400-145106-15

Date Collected: 10/26/17 12:05

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	338342	11/21/17 06:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335938	11/06/17 12:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Client Sample ID: DUP-1

Lab Sample ID: 400-145106-16

Date Collected: 10/26/17 00:00

Matrix: Water

Date Received: 10/27/17 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			334817	10/30/17 09:35	LDE	TAL SL
Total/NA	Analysis	9315		1	338342	11/21/17 06:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			334822	10/30/17 09:56	LDE	TAL SL
Total/NA	Analysis	9320		1	335938	11/06/17 12:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	338550	11/21/17 17:18	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Rad

Prep Batch: 334817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total/NA	Water	PrecSep-21	
400-145106-2	ARGWC-9	Total/NA	Water	PrecSep-21	
400-145106-3	ARGWA-13	Total/NA	Water	PrecSep-21	
400-145106-4	ARGWA-3	Total/NA	Water	PrecSep-21	
400-145106-5	ARGWA-5	Total/NA	Water	PrecSep-21	
400-145106-6	ARGWA-12	Total/NA	Water	PrecSep-21	
400-145106-7	ARGWA-14	Total/NA	Water	PrecSep-21	
400-145106-8	ARGWC-18	Total/NA	Water	PrecSep-21	
400-145106-9	FB-1-10-25-17	Total/NA	Water	PrecSep-21	
400-145106-10	ARGWC-7	Total/NA	Water	PrecSep-21	
400-145106-11	ARGWC-8	Total/NA	Water	PrecSep-21	
400-145106-12	ARGWC-10	Total/NA	Water	PrecSep-21	
400-145106-13	ARGWC-15	Total/NA	Water	PrecSep-21	
400-145106-14	ARGWC-16	Total/NA	Water	PrecSep-21	
400-145106-15	ARGWC-17	Total/NA	Water	PrecSep-21	
400-145106-16	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-334817/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-334817/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-145106-12 DU	ARGWC-10	Total/NA	Water	PrecSep-21	

Prep Batch: 334822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-145106-1	EB-1-10-25-17	Total/NA	Water	PrecSep_0	
400-145106-2	ARGWC-9	Total/NA	Water	PrecSep_0	
400-145106-3	ARGWA-13	Total/NA	Water	PrecSep_0	
400-145106-4	ARGWA-3	Total/NA	Water	PrecSep_0	
400-145106-5	ARGWA-5	Total/NA	Water	PrecSep_0	
400-145106-6	ARGWA-12	Total/NA	Water	PrecSep_0	
400-145106-7	ARGWA-14	Total/NA	Water	PrecSep_0	
400-145106-8	ARGWC-18	Total/NA	Water	PrecSep_0	
400-145106-9	FB-1-10-25-17	Total/NA	Water	PrecSep_0	
400-145106-10	ARGWC-7	Total/NA	Water	PrecSep_0	
400-145106-11	ARGWC-8	Total/NA	Water	PrecSep_0	
400-145106-12	ARGWC-10	Total/NA	Water	PrecSep_0	
400-145106-13	ARGWC-15	Total/NA	Water	PrecSep_0	
400-145106-14	ARGWC-16	Total/NA	Water	PrecSep_0	
400-145106-15	ARGWC-17	Total/NA	Water	PrecSep_0	
400-145106-16	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-334822/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-334822/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-145106-12 DU	ARGWC-10	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-334817/1-A
Matrix: Water
Analysis Batch: 338344

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334817

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02225	U	0.0424	0.0424	1.00	0.0766	pCi/L	10/30/17 09:29	11/21/17 06:03	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/30/17 09:29	11/21/17 06:03	1

Lab Sample ID: LCS 160-334817/2-A
Matrix: Water
Analysis Batch: 338344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334817

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.8	10.84		1.09	1.00	0.0672	pCi/L	92	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	107		40 - 110						

Lab Sample ID: 400-145106-12 DU
Matrix: Water
Analysis Batch: 338342

Client Sample ID: ARGWC-10
Prep Type: Total/NA
Prep Batch: 334817

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0725		0.2347		0.0936	1.00	0.0901	pCi/L	1.09	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.0		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-334822/1-A
Matrix: Water
Analysis Batch: 335915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334822

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5504		0.257	0.262	1.00	0.372	pCi/L	10/30/17 09:56	11/06/17 12:31	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/30/17 09:56	11/06/17 12:31	1
Y Carrier	79.3		40 - 110					10/30/17 09:56	11/06/17 12:31	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
 SDG: Plant Arkwright Ash Pond 3

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

Lab Sample ID: LCS 160-334822/2-A
Matrix: Water
Analysis Batch: 335915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334822

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.85	7.681		0.918	1.00	0.369	pCi/L	87	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	107		40 - 110
Y Carrier	79.6		40 - 110

Lab Sample ID: 400-145106-12 DU
Matrix: Water
Analysis Batch: 335869

Client Sample ID: ARGWC-10
Prep Type: Total/NA
Prep Batch: 334822

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.261	U	0.8021		0.294	1.00	0.387	pCi/L	1.03	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.0		40 - 110
Y Carrier	86.7		40 - 110

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

Lab Sample ID: 400-145106-12 DU
Matrix: Water
Analysis Batch: 338550

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.334	U	1.037		0.309	5.00	0.387	pCi/L	1.29	

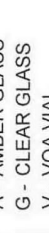


Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: _____ OF _____

CHAIN OF CUSTODY RECORD

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P P P P P P P		L A B		P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		CONTAINER TYPE:		PRESERVATION:		1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	
241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		# of		3			
REPORT TO:		CONTAINER TYPE:		PRESERVATION:			
Joju Abraham		3		3			
REQUESTED COMPLETION DATE:		PRESERVATION:		3			
laburch@southernco.com		3		3			
PROJECT NAME/STATE:		PRESERVATION:		3			
Plant Arkwright Pond 3		3		3			
PROJECT #:		PRESERVATION:		3			
Phase II CCR & State D&O		3		3			
Collection DATE	Collection TIME	MATRIX CODE*	GRA B	COM P	DATE/TIME	RELINQUISHED BY	DATE/TIME
10-25-17	1830	GW	✓	✓	10-25-17 1845	J. B. Ford	10-26-17 1540
10-25-17	1440	GW	✓	✓	10-25-17 1840		10-26-17 1540
10-25-17	1550	GW	✓	✓			
10-25-17	1145	GW	✓	✓			
10-25-17	1150	GW	✓	✓			
10-25-17	1430	W	✓	✓			
10-25-17	1740	GW	✓	✓			
SAMPLED BY AND TITLE:		RELINQUISHED BY:		DATE/TIME:		FOR LAB USE ONLY	
J. B. Ford (A/C)		J. B. Ford		10-26-17 1540		LAB #:	
RECEIVED BY:		RELINQUISHED BY:		DATE/TIME:		Entered into LIMS:	
J. B. Ford		J. B. Ford		10-26-17 1540		Tracking #:	
RECEIVED BY LAB:		SAMPLE SHIPPED VIA:		DATE/TIME:			
pH Checked: Yes No NA		UPS FED-EX USPS COURIER CLIENT OTHER FS		10-26-17 1540			
Ice: Yes No NA		Intact Broken Not Present		10-26-17 1540			
Temperature: Min: Max:		Cooler ID:		10-26-17 1540			
2.2C IR8 TP		1.3C IR8 TP		10-26-17 1540			



400-145106 COC

CONTAINERS

Matrix Codes:

DW - DRINKING WATER S - SOIL
 WW - WASTEWATER SL - SLUDGE
 GW - GROUNDWATER SD - SOLID
 SW - SURFACE WATER A - AIR
 ST - STORM WATER L - LIQUID
 W - WATER P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

Metals App. III & IV (EPA 6020/7470)
 Metals (see additional list below) (EPA 6020)
 Cl, F, SO₄ & TDS (EPA 300.0 & SM 2540C)
 Radium 226 & 228 (SW-846 9315/9320)

Plant Arkwright Pond 3

Phase II CCR & State D&O

Collection DATE

Collection TIME

MATRIX CODE*

GRA B

COM P

DATE/TIME

RELINQUISHED BY

DATE/TIME

FOR LAB USE ONLY

LAB #:

Entered into LIMS:

Tracking #:

SAMPLE SHIPPED VIA:

UPS FED-EX USPS COURIER CLIENT OTHER FS

Intact Broken Not Present

Cooler ID:

Temperature: Min: Max:

2.2C IR8 TP

1.3C IR8 TP

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se

Plant Arkwright - Ash Pond 3 COC

11/21/2017

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



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
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PAGE: OF

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239
REPORT TO: Joju Abraham
Heath McCorkle
laburch@southernco.com
PROJECT NAME/STATE: Plant Arkwright Pond 3

PROJECT #: Phase II CCR & State D&O

Table with columns: Collection DATE, Collection TIME, MATRIX CODE*, C O M P, SAMPLE IDENTIFICATION. Rows include AR6WC-8, AR6WC-10, AR6WC-15, AR6WC-16, AR6WC-17, DUP-1.

Main analysis table with columns: CONTAINER TYPE, ANALYSIS REQUESTED, CONTAINER TYPE, PRESERVATION, MATRIX CODES, REMARKS/ADDITIONAL INFORMATION. Includes analysis details for Metals, Cl, F, SO4 & TDS, Radium, and various matrix codes.

SAMPLED BY AND TITLE: J. Berisford (Acc)
RECEIVED BY: J. Berisford
DATE/TIME: 10-26-17 1350
RECEIVED BY LAB: [Signature]
DATE/TIME: 10-27-17 0833

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:
USPS FED-EX USPS COURIER CLIENT OTHER FS
Intact Broken Not Present
Temperature: Min. Max.
a.ac IRB TP

Plant Arkwright - Ash Pond 3 COC

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239 REPORT TO: Joju Abraham REQUESTED COMPLETION DATE: PO #: PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O		CONTAINER TYPE: PRESERVATION: # of CONTAINERS ANALYSIS REQUESTED P P P P P 3 3 3 7 3 Metals App. III & IV (EPA 6020/7470) Metals (see additional list below) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)		CONTAINER TYPE: PRESERVATION P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT REMARKS/ADDITIONAL INFORMATION 400-145106 COC	
RELINQUISHED BY: DATE/TIME: 10-25-17 1040 RELINQUISHED BY: [Signature] DATE/TIME: 10-25-17 1040		SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS [Checked] [] [] [] [] [] # of Coolers Not Present Cooler ID:			



Plant Arkwright - Ash Pond 3 COC

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-145106-2
SDG Number: Plant Arkwright Ash Pond 3

Login Number: 145106

List Number: 1

Creator: Johnson, Jeremy N

List Source: TestAmerica Pensacola

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.	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	
COC is present.	True	2.9°C, 2.2°C, 1.3°C IR8
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

Laboratory: 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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	12-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17 *
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	12-31-17 *
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542017-1	07-31-18
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

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

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-145106-2
SDG: Plant Arkwright Ash Pond 3

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
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-18
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18

Product Name: Low-Flow System

Date: 2017-10-25 18:31:09

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 44 ft

Pump placement from TOC 40.0 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 36.40 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 1.44062 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 60 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%	+/- 0		+/- 0.2	+/- 0
Last 5	18:08:15	19510.72	19.77	5.89	91.17	13.00	36.60	6.15	104.21
Last 5	18:13:15	19810.72	19.46	5.88	91.37	10.00	36.60	6.19	104.06
Last 5	18:18:15	20110.72	19.23	5.88	91.48	11.00	36.60	6.19	103.61
Last 5	18:23:15	20410.71	19.12	5.89	91.51	10.00	36.60	6.21	102.91
Last 5	18:28:18	20713.71	19.01	5.89	91.58	9.89	36.60	6.20	102.91
Variance 0			-0.22	0.00	0.12			0.01	-0.45
Variance 1			-0.12	0.01	0.03			0.02	-0.69
Variance 2			-0.11	-0.00	0.07			-0.01	-0.01

Notes

Collected at 18:30. Sunny 50s

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 14:42:13

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 56.26"
Longitude -83° -42' -30.06"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 33.1 ft

Pump placement from TOC 28.1 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 24.23 ft

Pumping Information:

Final Pumping Rate 230 mL/min
Total System Volume 0.6327392 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.2 in
Total Volume Pumped 17.2 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	14:20:04	3300.96	18.52	6.13	91.59	1.11	24.50	5.66	102.10
Last 5	14:25:04	3600.95	18.56	6.14	91.41	1.63	24.50	5.65	102.99
Last 5	14:30:04	3900.95	18.57	6.14	91.23	1.89	24.50	5.65	104.13
Last 5	14:35:04	4200.95	18.53	6.14	91.15	1.18	24.50	5.72	108.52
Last 5	14:40:07	4503.94	18.53	6.11	91.15	1.21	24.50	5.70	110.14
Variance 0			0.01	0.00	-0.17			0.00	1.14
Variance 1			-0.04	0.00	-0.08			0.06	4.39
Variance 2			0.00	-0.03	-0.00			-0.02	1.62

Notes

Sunny,70s,sample time-1440,WL Below top of screen-3well volumes moved before sampling. FB-1-10-25-17 here at 1430

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 15:51:01

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 57.37"
Longitude -83° -42' -35.13"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 32.3 ft

Pump placement from TOC 27.3 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.35 ft
Screen Length 10 ft
Depth to Water 17.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.186512 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11.4 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	15:30:03	600.01	19.12	6.18	196.66	3.98	18.60	1.97	117.05
Last 5	15:35:03	900.01	19.15	6.12	193.23	3.34	18.70	1.89	118.07
Last 5	15:40:03	1200.00	19.09	6.12	192.33	4.70	18.80	1.84	117.75
Last 5	15:45:03	1500.00	19.15	6.13	192.01	4.04	18.80	1.82	117.62
Last 5	15:50:03	1799.99	19.16	6.13	191.71	4.14	18.80	1.82	117.68
Variance 0			-0.06	-0.00	-0.89			-0.06	-0.32
Variance 1			0.05	0.01	-0.32			-0.01	-0.12
Variance 2			0.01	0.00	-0.30			-0.00	0.06

Notes

Sunny,70s, sample time-1550

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 09:52:02

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 43.2 ft

Pump placement from TOC 38.2 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 28.14 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.423246 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.1 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	09:30:03	1499.99	15.45	5.82	1335.67	1.73	26.90	1.66	133.68
Last 5	09:35:03	1799.99	16.88	5.75	1328.44	1.03	26.90	1.13	119.12
Last 5	09:40:03	2099.98	17.05	5.74	1269.43	1.22	26.90	1.16	117.13
Last 5	09:45:03	2399.97	17.08	5.73	1233.32	0.73	26.90	1.19	116.44
Last 5	09:50:03	2699.97	17.14	5.72	1274.87	0.88	26.90	1.14	116.13
Variance 0			0.17	-0.01	-59.01			0.04	-1.99
Variance 1			0.03	-0.02	-36.11			0.02	-0.69
Variance 2			0.06	-0.01	41.54			-0.05	-0.31

Notes

Sunny,60s, sample time-0950

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 11:46:18

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.79"
Longitude -83° -42' -16.43"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 43.65 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.744681 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 46.4 in
Total Volume Pumped 4.3 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			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:25:03	3900.95	20.10	6.88	569.95	1.29	47.40	1.92	91.41
Last 5	11:30:04	4201.95	19.35	6.86	549.95	1.05	47.40	2.01	91.29
Last 5	11:35:04	4501.94	19.17	6.76	529.82	0.86	47.50	2.12	91.02
Last 5	11:40:04	4801.93	19.11	6.76	522.16	1.09	47.50	2.22	90.61
Last 5	11:45:04	5101.93	19.26	6.77	507.34	1.12	47.50	2.35	90.81
Variance 0			-0.18	-0.10	-20.12			0.11	-0.28
Variance 1			-0.06	0.00	-7.67			0.10	-0.41
Variance 2			0.14	0.01	-14.81			0.13	0.21

Notes

Sunny,70s,sample time-1145

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 17:42:08

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 31.9"
Longitude -83° -42' -16.55"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 48.3 ft

Pump placement from TOC 43.3 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.32 ft
Screen Length 10 ft
Depth to Water 25.46 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 1.534011 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15.6 in
Total Volume Pumped 7.5 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	17:20:05	600.01	18.57	6.05	207.06	1.81	25.60	4.23	105.24
Last 5	17:25:05	900.00	18.51	6.01	206.07	1.34	25.70	4.20	106.98
Last 5	17:30:05	1200.00	18.44	6.00	203.38	1.59	25.80	3.95	107.99
Last 5	17:35:05	1499.99	18.43	5.97	204.56	1.11	25.80	3.82	108.91
Last 5	17:40:05	1799.99	18.40	5.99	205.16	1.03	25.80	3.78	108.59
Variance 0			-0.07	-0.01	-2.70			-0.25	1.01
Variance 1			-0.00	-0.03	1.18			-0.13	0.92
Variance 2			-0.03	0.02	0.59			-0.04	-0.33

Notes

Sunny,60s, sample time-1740

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-26 10:26:53

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 33.04"
Longitude -83° -42' -25.85"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 43.2 ft

Pump placement from TOC 37.2 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 26.63 ft

Pumping Information:

Final Pumping Rate 225 mL/min
Total System Volume 1.423246 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 19.1 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	10:05:02	300.01	18.97	6.50	526.22	4.80	26.80	0.20	116.12
Last 5	10:10:02	600.01	19.10	6.49	525.76	4.85	26.80	0.19	117.11
Last 5	10:15:02	900.00	19.24	6.48	525.82	3.89	26.80	0.19	118.57
Last 5	10:20:02	1200.00	19.29	6.47	525.85	3.56	26.80	0.19	119.70
Last 5	10:25:02	1500.00	19.36	6.47	526.19	3.12	26.80	0.19	120.96
Variance 0			0.14	-0.01	0.06			0.00	1.46
Variance 1			0.05	-0.01	0.03			-0.01	1.13
Variance 2			0.07	0.00	0.34			0.01	1.25

Notes

Sunny,70s,sample time-1025, DUP-1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 09:55:52

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.07 ft
Screen Length 10 ft
Depth to Water 23.13 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 1.310309 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 8.1 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	09:31:55	1199.99	19.46	5.86	94.07	6.12	23.20	4.58	114.27
Last 5	09:36:55	1499.99	19.52	5.82	93.80	5.24	23.20	4.55	114.10
Last 5	09:41:55	1799.99	19.46	5.70	93.85	4.84	23.20	4.54	118.88
Last 5	09:46:59	2103.99	19.52	5.69	94.02	4.91	23.20	4.56	119.20
Last 5	09:51:59	2403.97	19.55	5.70	94.19	4.67	23.20	4.57	119.22
Variance 0			-0.05	-0.12	0.04			-0.02	4.78
Variance 1			0.05	-0.01	0.17			0.02	0.32
Variance 2			0.03	0.00	0.17			0.01	0.01

Notes

Collected at 09:55. Sunny 50s. EB 1 here at 09:30

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-26 12:44:37

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 41.84"
Longitude -83° -42' -30.08"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 38.3 ft

Pump placement from TOC 33.3 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 23.64 ft

Pumping Information:

Final Pumping Rate 310 mL/min
Total System Volume 1.316824 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 17.1 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	12:20:07	600.02	19.55	6.13	116.86	5.29	23.90	3.89	127.69
Last 5	12:25:07	900.01	19.54	6.08	116.88	5.89	23.90	3.90	130.56
Last 5	12:30:07	1200.01	19.50	6.06	116.64	4.03	23.90	3.92	129.84
Last 5	12:35:07	1500.00	19.52	6.05	116.55	4.62	23.90	3.91	128.70
Last 5	12:40:07	1800.00	19.53	6.07	116.60	3.08	23.90	3.92	128.11
Variance 0			-0.04	-0.02	-0.24			0.02	-0.72
Variance 1			0.02	-0.01	-0.09			-0.01	-1.14
Variance 2			0.01	0.01	0.05			0.02	-0.59

Notes

Sunny,70s,sample time -1240,2nd rad here

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-26 09:59:23

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 42 ft

Pump placement from TOC 37 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 30.65 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 1.397183 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 18 in
Total Volume Pumped 4.2 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%	+/- 0		+/- 0.2	+/- 0
Last 5	09:34:14	2704.97	14.44	6.22	208.62	0.77	31.80	3.95	95.61
Last 5	09:39:14	3004.96	14.62	6.22	209.83	1.02	31.80	3.84	94.05
Last 5	09:44:14	3304.96	14.49	6.20	207.72	0.95	31.90	3.67	93.76
Last 5	09:49:14	3604.96	14.49	6.19	209.00	0.88	32.00	3.63	93.31
Last 5	09:54:14	3904.95	15.17	6.20	208.79	0.97	32.10	3.61	91.80
Variance 0			-0.13	-0.02	-2.10			-0.17	-0.29
Variance 1			-0.00	-0.01	1.28			-0.04	-0.45
Variance 2			0.68	0.01	-0.22			-0.02	-1.50

Notes

Collected at 0955. Sunny 45.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-26 13:26:19

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 35 ft

Pump placement from TOC 29.5 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 22.05 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.245153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 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%	+/- 0		+/- 0.2	+/- 0
Last 5	13:03:19	600.02	19.68	5.25	310.53	1.86	22.10	0.92	149.64
Last 5	13:08:19	900.01	19.60	5.21	309.92	1.15	22.10	0.60	151.13
Last 5	13:13:19	1200.01	19.68	5.23	310.54	0.87	22.10	0.62	151.37
Last 5	13:18:19	1500.00	19.77	5.25	310.87	0.75	22.10	0.59	151.10
Last 5	13:23:19	1800.00	20.00	5.20	311.08	0.71	22.10	0.57	153.75
Variance 0			0.08	0.02	0.63			0.03	0.24
Variance 1			0.09	0.03	0.32			-0.04	-0.27
Variance 2			0.23	-0.05	0.21			-0.01	2.65

Notes

Collected at 13:25. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-26 12:07:26

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 34 ft

Pump placement from TOC 28.9 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 23.14 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.223434 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	11:42:51	1500.00	18.39	5.38	235.22	3.35	23.60	0.71	112.53
Last 5	11:47:52	1800.99	18.34	5.35	223.75	2.95	23.60	0.65	120.03
Last 5	11:52:52	2100.98	18.52	5.33	218.10	2.69	23.60	0.64	125.07
Last 5	11:57:52	2400.99	18.52	5.29	212.28	2.78	23.60	0.60	130.43
Last 5	12:02:52	2700.98	18.52	5.29	209.88	2.26	23.60	0.54	132.57
Variance 0			0.18	-0.02	-5.65			-0.01	5.04
Variance 1			0.00	-0.04	-5.82			-0.04	5.36
Variance 2			-0.00	0.00	-2.40			-0.06	2.14

Notes

Collected at 12:05. Sunny 50s

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-25 11:50:32

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 58 ft

Pump placement from TOC 45 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 28.85 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.744681 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	11:27:31	1200.01	20.79	6.06	601.44	5.35	29.20	0.30	20.38
Last 5	11:32:31	1500.00	21.29	6.02	605.84	5.04	29.20	0.26	27.96
Last 5	11:37:31	1800.00	21.01	5.99	608.49	4.75	29.20	0.25	34.07
Last 5	11:42:31	2100.00	20.93	5.97	613.21	4.62	29.20	0.25	38.00
Last 5	11:47:31	2399.99	21.49	5.97	613.24	4.70	29.20	0.25	39.78
Variance 0			-0.28	-0.03	2.65			-0.00	6.11
Variance 1			-0.09	-0.02	4.72			0.00	3.93
Variance 2			0.56	0.00	0.03			-0.00	1.78

Notes

Collected at 11:50. Sunny 50s

Grab Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-152147-1

TestAmerica Sample Delivery Group: Ash Pond #3

Client Project/Site: CCR Plant Arkwright

For:

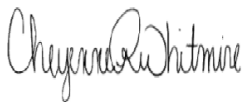
Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

4/27/2018 5:08:57 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Job ID: 400-152147-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-152147-1**

HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-152147-1), ARGWC-16 (400-152147-7) and ARGWC-17 (400-152147-8). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-394330 and analytical batch 400-394514 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.

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Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-152147-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate - DL	230		10	7.0	mg/L	10		300.0	Total/NA
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.059		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	49		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0056		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0063		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-14

Lab Sample ID: 400-152147-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.25		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.040	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Cadmium	0.00052	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0052		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	280		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-1-4-10-18

Lab Sample ID: 400-152147-3

No Detections.

Client Sample ID: ARGWA-3

Lab Sample ID: 400-152147-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0036		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-5

Lab Sample ID: 400-152147-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-5 (Continued)

Lab Sample ID: 400-152147-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000070	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-12

Lab Sample ID: 400-152147-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.073		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.027	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0070		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00033	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000072	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-152147-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate - DL	130		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.056		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.048	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	25		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0031	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0013		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000099	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-17

Lab Sample ID: 400-152147-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate - DL	58		5.0	3.5	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-17 (Continued)

Lab Sample ID: 400-152147-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.026	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.021		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0023	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15

Lab Sample ID: 400-152147-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	6.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	24		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00045	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0029	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.00097	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00044	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000071	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-7

Lab Sample ID: 400-152147-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	46		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.10		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0038		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0050		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.000070	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-152147-1	ARGWA-13	Water	04/09/18 16:15	04/13/18 09:10
400-152147-2	ARGWA-14	Water	04/09/18 18:05	04/13/18 09:10
400-152147-3	FB-1-4-10-18	Water	04/10/18 09:15	04/13/18 09:10
400-152147-4	ARGWA-3	Water	04/10/18 12:20	04/13/18 09:10
400-152147-5	ARGWA-5	Water	04/10/18 14:05	04/13/18 09:10
400-152147-6	ARGWA-12	Water	04/10/18 13:57	04/12/18 09:32
400-152147-7	ARGWC-16	Water	04/10/18 17:19	04/12/18 09:32
400-152147-8	ARGWC-17	Water	04/10/18 15:54	04/12/18 09:32
400-152147-9	ARGWC-15	Water	04/10/18 15:25	04/13/18 09:10
400-152147-10	ARGWC-7	Water	04/10/18 17:40	04/13/18 09:10



Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-13

Date Collected: 04/09/18 16:15

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			04/19/18 17:30	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 17:30	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	230		10	7.0	mg/L			04/23/18 21:07	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/18/18 23:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/18/18 23:42	5
Barium	0.023		0.0025	0.00049	mg/L		04/18/18 11:32	04/18/18 23:42	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/18/18 23:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:42	5
Boron	0.059		0.050	0.021	mg/L		04/18/18 11:32	04/18/18 23:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:42	5
Calcium	49		0.25	0.13	mg/L		04/18/18 11:32	04/18/18 23:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:32	04/18/18 23:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/18/18 23:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/18/18 23:42	5
Lithium	0.0056		0.0050	0.0011	mg/L		04/18/18 11:32	04/18/18 23:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/18/18 23:42	5
Selenium	0.0063		0.0013	0.00024	mg/L		04/18/18 11:32	04/18/18 23:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/18/18 23:42	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		04/21/18 13:35	04/23/18 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		5.0	3.4	mg/L			04/14/18 16:44	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-152147-2

Date Collected: 04/09/18 18:05

Matrix: Water

Date Received: 04/13/18 09:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		1.0	0.89	mg/L			04/19/18 20:10	1
Fluoride	0.25		0.20	0.082	mg/L			04/19/18 20:10	1
Sulfate	11		1.0	0.70	mg/L			04/19/18 20:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/18/18 23:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/18/18 23:47	5
Barium	0.049		0.0025	0.00049	mg/L		04/18/18 11:32	04/18/18 23:47	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/18/18 23:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:47	5
Boron	0.040	J	0.050	0.021	mg/L		04/18/18 11:32	04/18/18 23:47	5
Cadmium	0.00052	J	0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:47	5
Calcium	30		0.25	0.13	mg/L		04/18/18 11:32	04/18/18 23:47	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		04/18/18 11:32	04/18/18 23:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/18/18 23:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/18/18 23:47	5
Lithium	0.0052		0.0050	0.0011	mg/L		04/18/18 11:32	04/18/18 23:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/18/18 23:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/18/18 23:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/18/18 23:47	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		04/21/18 13:35	04/23/18 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	280		5.0	3.4	mg/L			04/14/18 16:44	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: FB-1-4-10-18

Lab Sample ID: 400-152147-3

Date Collected: 04/10/18 09:15

Matrix: Water

Date Received: 04/13/18 09:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/19/18 20:33	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 20:33	1
Sulfate	<0.70		1.0	0.70	mg/L			04/19/18 20:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/18/18 23:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/18/18 23:51	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/18 11:32	04/18/18 23:51	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/18/18 23:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:51	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:32	04/18/18 23:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:51	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/18 11:32	04/18/18 23:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:32	04/18/18 23:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/18/18 23:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/18/18 23:51	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 11:32	04/18/18 23:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/18/18 23:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/18/18 23:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/18/18 23:51	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		04/21/18 13:35	04/23/18 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/16/18 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-152147-4

Date Collected: 04/10/18 12:20

Matrix: Water

Date Received: 04/13/18 09:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		1.0	0.89	mg/L			04/19/18 20:56	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 20:56	1
Sulfate	<0.70		1.0	0.70	mg/L			04/19/18 20:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/18/18 23:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/18/18 23:56	5
Barium	0.019		0.0025	0.00049	mg/L		04/18/18 11:32	04/18/18 23:56	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/18/18 23:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:56	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:32	04/18/18 23:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 23:56	5
Calcium	5.9		0.25	0.13	mg/L		04/18/18 11:32	04/18/18 23:56	5
Chromium	0.0036		0.0025	0.0011	mg/L		04/18/18 11:32	04/18/18 23:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/18/18 23:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/18/18 23:56	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 11:32	04/18/18 23:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/18/18 23:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/18/18 23:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/18/18 23:56	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		04/21/18 13:35	04/23/18 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			04/16/18 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-152147-5

Date Collected: 04/10/18 14:05

Matrix: Water

Date Received: 04/13/18 09:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			04/19/18 21:18	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 21:18	1
Sulfate	<0.70		1.0	0.70	mg/L			04/19/18 21:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/19/18 00:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/19/18 00:00	5
Barium	0.028		0.0025	0.00049	mg/L		04/18/18 11:32	04/19/18 00:00	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/19/18 00:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:00	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:32	04/19/18 00:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:00	5
Calcium	5.3		0.25	0.13	mg/L		04/18/18 11:32	04/19/18 00:00	5
Chromium	0.0012	J	0.0025	0.0011	mg/L		04/18/18 11:32	04/19/18 00:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/19/18 00:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/19/18 00:00	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 11:32	04/19/18 00:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/19/18 00:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/19/18 00:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/19/18 00:00	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		04/21/18 13:35	04/23/18 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			04/16/18 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-152147-6

Date Collected: 04/10/18 13:57

Matrix: Water

Date Received: 04/12/18 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		1.0	0.89	mg/L			04/19/18 22:04	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 22:04	1
Sulfate	9.5		1.0	0.70	mg/L			04/19/18 22:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/19/18 00:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/19/18 00:27	5
Barium	0.073		0.0025	0.00049	mg/L		04/18/18 11:32	04/19/18 00:27	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/19/18 00:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:27	5
Boron	0.027	J	0.050	0.021	mg/L		04/18/18 11:32	04/19/18 00:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:27	5
Calcium	13		0.25	0.13	mg/L		04/18/18 11:32	04/19/18 00:27	5
Chromium	0.0013	J	0.0025	0.0011	mg/L		04/18/18 11:32	04/19/18 00:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/19/18 00:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/19/18 00:27	5
Lithium	0.0070		0.0050	0.0011	mg/L		04/18/18 11:32	04/19/18 00:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/19/18 00:27	5
Selenium	0.00033	J	0.0013	0.00024	mg/L		04/18/18 11:32	04/19/18 00:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/19/18 00:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000072	J	0.00020	0.000070	mg/L		04/21/18 13:35	04/23/18 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			04/16/18 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-16

Date Collected: 04/10/18 17:19

Date Received: 04/12/18 09:32

Lab Sample ID: 400-152147-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		1.0	0.89	mg/L			04/19/18 22:27	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 22:27	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	130		5.0	3.5	mg/L			04/23/18 21:30	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/19/18 00:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/19/18 00:32	5
Barium	0.056		0.0025	0.00049	mg/L		04/18/18 11:32	04/19/18 00:32	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/19/18 00:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:32	5
Boron	0.048	J	0.050	0.021	mg/L		04/18/18 11:32	04/19/18 00:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:32	5
Calcium	25		0.25	0.13	mg/L		04/18/18 11:32	04/19/18 00:32	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		04/18/18 11:32	04/19/18 00:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/19/18 00:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/19/18 00:32	5
Lithium	0.0031	J	0.0050	0.0011	mg/L		04/18/18 11:32	04/19/18 00:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/19/18 00:32	5
Selenium	0.0013		0.0013	0.00024	mg/L		04/18/18 11:32	04/19/18 00:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/19/18 00:32	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000099	J	0.00020	0.000070	mg/L		04/21/18 13:35	04/23/18 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	260		5.0	3.4	mg/L			04/16/18 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-152147-8

Date Collected: 04/10/18 15:54

Matrix: Water

Date Received: 04/12/18 09:32

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.89	mg/L			04/19/18 22:50	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 22:50	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	58		5.0	3.5	mg/L			04/23/18 21:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/19/18 00:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/19/18 00:36	5
Barium	0.046		0.0025	0.00049	mg/L		04/18/18 11:32	04/19/18 00:36	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/19/18 00:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:36	5
Boron	0.026	J	0.050	0.021	mg/L		04/18/18 11:32	04/19/18 00:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:36	5
Calcium	13		0.25	0.13	mg/L		04/18/18 11:32	04/19/18 00:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:32	04/19/18 00:36	5
Cobalt	0.021		0.0025	0.00040	mg/L		04/18/18 11:32	04/19/18 00:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/19/18 00:36	5
Lithium	0.0023	J	0.0050	0.0011	mg/L		04/18/18 11:32	04/19/18 00:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/19/18 00:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/19/18 00:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/19/18 00:36	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		04/21/18 13:35	04/23/18 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			04/16/18 12:04	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-152147-9

Date Collected: 04/10/18 15:25

Matrix: Water

Date Received: 04/13/18 09:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.89	mg/L			04/19/18 23:58	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 23:58	1
Sulfate	6.7		1.0	0.70	mg/L			04/19/18 23:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/19/18 00:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/19/18 00:41	5
Barium	0.032		0.0025	0.00049	mg/L		04/18/18 11:32	04/19/18 00:41	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/19/18 00:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:41	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:32	04/19/18 00:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:41	5
Calcium	24		0.25	0.13	mg/L		04/18/18 11:32	04/19/18 00:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:32	04/19/18 00:41	5
Cobalt	0.00045	J	0.0025	0.00040	mg/L		04/18/18 11:32	04/19/18 00:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/19/18 00:41	5
Lithium	0.0029	J	0.0050	0.0011	mg/L		04/18/18 11:32	04/19/18 00:41	5
Molybdenum	0.00097	J	0.015	0.00085	mg/L		04/18/18 11:32	04/19/18 00:41	5
Selenium	0.00044	J	0.0013	0.00024	mg/L		04/18/18 11:32	04/19/18 00:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/19/18 00:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000071	J	0.00020	0.000070	mg/L		04/21/18 13:35	04/23/18 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			04/16/18 17:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-7

Date Collected: 04/10/18 17:40

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		1.0	0.89	mg/L			04/20/18 00:21	1
Fluoride	<0.082		0.20	0.082	mg/L			04/20/18 00:21	1
Sulfate	46		1.0	0.70	mg/L			04/20/18 00:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/19/18 00:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/19/18 00:45	5
Barium	0.038		0.0025	0.00049	mg/L		04/18/18 11:32	04/19/18 00:45	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/19/18 00:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:45	5
Boron	0.10		0.050	0.021	mg/L		04/18/18 11:32	04/19/18 00:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/19/18 00:45	5
Calcium	12		0.25	0.13	mg/L		04/18/18 11:32	04/19/18 00:45	5
Chromium	0.0038		0.0025	0.0011	mg/L		04/18/18 11:32	04/19/18 00:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/19/18 00:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/19/18 00:45	5
Lithium	0.0050		0.0050	0.0011	mg/L		04/18/18 11:32	04/19/18 00:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/19/18 00:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/19/18 00:45	5
Thallium	<0.00085		0.00050	0.000085	mg/L		04/18/18 11:32	04/19/18 00:45	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		04/21/18 13:35	04/23/18 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			04/16/18 17:53	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-13

Date Collected: 04/09/18 16:15

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 17:30	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	10	395004	04/23/18 21:07	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 23:42	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 14:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	393943	04/14/18 16:44	TET	TAL PEN

Client Sample ID: ARGWA-14

Date Collected: 04/09/18 18:05

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 20:10	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 23:47	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 14:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	393943	04/14/18 16:44	TET	TAL PEN

Client Sample ID: FB-1-4-10-18

Date Collected: 04/10/18 09:15

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 20:33	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 23:51	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 14:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Client Sample ID: ARGWA-3

Date Collected: 04/10/18 12:20

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 20:56	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 23:56	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 14:59	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-152147-4

Date Collected: 04/10/18 12:20

Matrix: Water

Date Received: 04/13/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Client Sample ID: ARGWA-5

Lab Sample ID: 400-152147-5

Date Collected: 04/10/18 14:05

Matrix: Water

Date Received: 04/13/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 21:18	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/19/18 00:00	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 15:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Client Sample ID: ARGWA-12

Lab Sample ID: 400-152147-6

Date Collected: 04/10/18 13:57

Matrix: Water

Date Received: 04/12/18 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 22:04	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/19/18 00:27	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 15:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Client Sample ID: ARGWC-16

Lab Sample ID: 400-152147-7

Date Collected: 04/10/18 17:19

Matrix: Water

Date Received: 04/12/18 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 22:27	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	395004	04/23/18 21:30	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/19/18 00:32	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 15:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-152147-8

Date Collected: 04/10/18 15:54

Matrix: Water

Date Received: 04/12/18 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 22:50	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	395004	04/23/18 21:53	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/19/18 00:36	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 15:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394035	04/16/18 12:04	RRC	TAL PEN

Client Sample ID: ARGWC-15

Lab Sample ID: 400-152147-9

Date Collected: 04/10/18 15:25

Matrix: Water

Date Received: 04/13/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/19/18 23:58	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/19/18 00:41	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 15:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Client Sample ID: ARGWC-7

Lab Sample ID: 400-152147-10

Date Collected: 04/10/18 17:40

Matrix: Water

Date Received: 04/13/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	394564	04/20/18 00:21	JAW	TAL PEN
Total Recoverable	Prep	3005A			394330	04/18/18 11:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/19/18 00:45	DRE	TAL PEN
Total/NA	Prep	7470A			394619	04/21/18 13:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	394938	04/23/18 15:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

HPLC/IC

Analysis Batch: 394564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total/NA	Water	300.0	
400-152147-2	ARGWA-14	Total/NA	Water	300.0	
400-152147-3	FB-1-4-10-18	Total/NA	Water	300.0	
400-152147-4	ARGWA-3	Total/NA	Water	300.0	
400-152147-5	ARGWA-5	Total/NA	Water	300.0	
400-152147-6	ARGWA-12	Total/NA	Water	300.0	
400-152147-7	ARGWC-16	Total/NA	Water	300.0	
400-152147-8	ARGWC-17	Total/NA	Water	300.0	
400-152147-9	ARGWC-15	Total/NA	Water	300.0	
400-152147-10	ARGWC-7	Total/NA	Water	300.0	
MB 400-394564/4	Method Blank	Total/NA	Water	300.0	
LCS 400-394564/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-394564/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-152147-1 MS	ARGWA-13	Total/NA	Water	300.0	
400-152147-1 MSD	ARGWA-13	Total/NA	Water	300.0	

Analysis Batch: 395004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1 - DL	ARGWA-13	Total/NA	Water	300.0	
400-152147-7 - DL	ARGWC-16	Total/NA	Water	300.0	
400-152147-8 - DL	ARGWC-17	Total/NA	Water	300.0	
MB 400-395004/4	Method Blank	Total/NA	Water	300.0	
LCS 400-395004/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-395004/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-152228-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
400-152228-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 394330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total Recoverable	Water	3005A	
400-152147-2	ARGWA-14	Total Recoverable	Water	3005A	
400-152147-3	FB-1-4-10-18	Total Recoverable	Water	3005A	
400-152147-4	ARGWA-3	Total Recoverable	Water	3005A	
400-152147-5	ARGWA-5	Total Recoverable	Water	3005A	
400-152147-6	ARGWA-12	Total Recoverable	Water	3005A	
400-152147-7	ARGWC-16	Total Recoverable	Water	3005A	
400-152147-8	ARGWC-17	Total Recoverable	Water	3005A	
400-152147-9	ARGWC-15	Total Recoverable	Water	3005A	
400-152147-10	ARGWC-7	Total Recoverable	Water	3005A	
MB 400-394330/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-394330/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-152145-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-152145-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 394514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total Recoverable	Water	6020	394330
400-152147-2	ARGWA-14	Total Recoverable	Water	6020	394330

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Metals (Continued)

Analysis Batch: 394514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-3	FB-1-4-10-18	Total Recoverable	Water	6020	394330
400-152147-4	ARGWA-3	Total Recoverable	Water	6020	394330
400-152147-5	ARGWA-5	Total Recoverable	Water	6020	394330
400-152147-6	ARGWA-12	Total Recoverable	Water	6020	394330
400-152147-7	ARGWC-16	Total Recoverable	Water	6020	394330
400-152147-8	ARGWC-17	Total Recoverable	Water	6020	394330
400-152147-9	ARGWC-15	Total Recoverable	Water	6020	394330
400-152147-10	ARGWC-7	Total Recoverable	Water	6020	394330
MB 400-394330/1-A ^5	Method Blank	Total Recoverable	Water	6020	394330
LCS 400-394330/2-A	Lab Control Sample	Total Recoverable	Water	6020	394330
400-152145-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	394330
400-152145-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	394330

Prep Batch: 394619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total/NA	Water	7470A	
400-152147-2	ARGWA-14	Total/NA	Water	7470A	
400-152147-3	FB-1-4-10-18	Total/NA	Water	7470A	
400-152147-4	ARGWA-3	Total/NA	Water	7470A	
400-152147-5	ARGWA-5	Total/NA	Water	7470A	
400-152147-6	ARGWA-12	Total/NA	Water	7470A	
400-152147-7	ARGWC-16	Total/NA	Water	7470A	
400-152147-8	ARGWC-17	Total/NA	Water	7470A	
400-152147-9	ARGWC-15	Total/NA	Water	7470A	
400-152147-10	ARGWC-7	Total/NA	Water	7470A	
MB 400-394619/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-394619/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-152145-B-2-C MS	Matrix Spike	Total/NA	Water	7470A	
400-152145-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 394938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total/NA	Water	7470A	394619
400-152147-2	ARGWA-14	Total/NA	Water	7470A	394619
400-152147-3	FB-1-4-10-18	Total/NA	Water	7470A	394619
400-152147-4	ARGWA-3	Total/NA	Water	7470A	394619
400-152147-5	ARGWA-5	Total/NA	Water	7470A	394619
400-152147-6	ARGWA-12	Total/NA	Water	7470A	394619
400-152147-7	ARGWC-16	Total/NA	Water	7470A	394619
400-152147-8	ARGWC-17	Total/NA	Water	7470A	394619
400-152147-9	ARGWC-15	Total/NA	Water	7470A	394619
400-152147-10	ARGWC-7	Total/NA	Water	7470A	394619
MB 400-394619/14-A	Method Blank	Total/NA	Water	7470A	394619
LCS 400-394619/15-A	Lab Control Sample	Total/NA	Water	7470A	394619
400-152145-B-2-C MS	Matrix Spike	Total/NA	Water	7470A	394619
400-152145-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	394619

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

General Chemistry

Analysis Batch: 393943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total/NA	Water	SM 2540C	
400-152147-2	ARGWA-14	Total/NA	Water	SM 2540C	
MB 400-393943/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-393943/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-151993-B-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 394035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-8	ARGWC-17	Total/NA	Water	SM 2540C	
MB 400-394035/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-394035/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-152147-8 DU	ARGWC-17	Total/NA	Water	SM 2540C	

Analysis Batch: 394044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-3	FB-1-4-10-18	Total/NA	Water	SM 2540C	
400-152147-4	ARGWA-3	Total/NA	Water	SM 2540C	
400-152147-5	ARGWA-5	Total/NA	Water	SM 2540C	
400-152147-6	ARGWA-12	Total/NA	Water	SM 2540C	
400-152147-7	ARGWC-16	Total/NA	Water	SM 2540C	
400-152147-9	ARGWC-15	Total/NA	Water	SM 2540C	
400-152147-10	ARGWC-7	Total/NA	Water	SM 2540C	
MB 400-394044/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-394044/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-152147-5 DU	ARGWA-5	Total/NA	Water	SM 2540C	
400-152147-6 DU	ARGWA-12	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-394564/4
Matrix: Water
Analysis Batch: 394564

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/19/18 14:31	1
Fluoride	<0.082		0.20	0.082	mg/L			04/19/18 14:31	1
Sulfate	<0.70		1.0	0.70	mg/L			04/19/18 14:31	1

Lab Sample ID: LCS 400-394564/5
Matrix: Water
Analysis Batch: 394564

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.65		mg/L		97	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

Lab Sample ID: LCSD 400-394564/6
Matrix: Water
Analysis Batch: 394564

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.64		mg/L		96	90 - 110	0	15
Fluoride	10.0	9.96		mg/L		100	90 - 110	2	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	1	15

Lab Sample ID: 400-152147-1 MS
Matrix: Water
Analysis Batch: 394564

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.8		10.0	13.4		mg/L		96	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	230	E	10.0	242	E 4	mg/L		125	80 - 120

Lab Sample ID: 400-152147-1 MSD
Matrix: Water
Analysis Batch: 394564

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.8		10.0	13.4		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120	2	20
Sulfate	230	E	10.0	241	E 4	mg/L		119	80 - 120	0	20

Lab Sample ID: MB 400-395004/4
Matrix: Water
Analysis Batch: 395004

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/23/18 16:33	1
Fluoride	<0.082		0.20	0.082	mg/L			04/23/18 16:33	1
Sulfate	<0.70		1.0	0.70	mg/L			04/23/18 16:33	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-395004/5
Matrix: Water
Analysis Batch: 395004

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.58		mg/L		96	90 - 110
Fluoride	10.0	9.74		mg/L		97	90 - 110
Sulfate	10.0	9.99		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-395004/6
Matrix: Water
Analysis Batch: 395004

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.55		mg/L		95	90 - 110	0	15
Fluoride	10.0	9.67		mg/L		97	90 - 110	1	15
Sulfate	10.0	9.88		mg/L		99	90 - 110	1	15

Lab Sample ID: 400-152228-A-5 MS
Matrix: Water
Analysis Batch: 395004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16		10.0	25.7		mg/L		95	80 - 120
Fluoride	<0.082		10.0	9.95		mg/L		99	80 - 120
Sulfate	44		10.0	53.9	E 4	mg/L		101	80 - 120

Lab Sample ID: 400-152228-A-5 MSD
Matrix: Water
Analysis Batch: 395004

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16		10.0	25.7		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	9.96		mg/L		100	80 - 120	0	20
Sulfate	44		10.0	53.8	E 4	mg/L		101	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-394330/1-A ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 394330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:32	04/18/18 22:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:32	04/18/18 22:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/18 11:32	04/18/18 22:21	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:32	04/18/18 22:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 22:21	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:32	04/18/18 22:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:32	04/18/18 22:21	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/18 11:32	04/18/18 22:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:32	04/18/18 22:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:32	04/18/18 22:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:32	04/18/18 22:21	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

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

Lab Sample ID: MB 400-394330/1-A ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 394330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 11:32	04/18/18 22:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:32	04/18/18 22:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:32	04/18/18 22:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:32	04/18/18 22:21	5

Lab Sample ID: LCS 400-394330/2-A
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 394330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0521		mg/L		104	80 - 120
Arsenic	0.0500	0.0510		mg/L		102	80 - 120
Barium	0.0500	0.0524		mg/L		105	80 - 120
Silver	0.0500	0.0496		mg/L		99	80 - 120
Beryllium	0.0500	0.0512		mg/L		102	80 - 120
Boron	0.100	0.103		mg/L		103	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	5.12		mg/L		102	80 - 120
Chromium	0.0500	0.0531		mg/L		106	80 - 120
Cobalt	0.0500	0.0545		mg/L		109	80 - 120
Lead	0.0500	0.0537		mg/L		107	80 - 120
Lithium	0.0500	0.0502		mg/L		100	80 - 120
Molybdenum	0.0500	0.0507		mg/L		101	80 - 120
Selenium	0.0500	0.0471		mg/L		94	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

Lab Sample ID: 400-152145-B-1-B MS ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 394330

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0541		mg/L		108	75 - 125
Arsenic	<0.00046		0.0500	0.0515		mg/L		103	75 - 125
Barium	0.044		0.0500	0.0962		mg/L		105	75 - 125
Silver	<0.00011		0.0500	0.0509		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0513		mg/L		103	75 - 125
Boron	0.022	J	0.100	0.132		mg/L		109	75 - 125
Cadmium	<0.00034		0.0500	0.0511		mg/L		102	75 - 125
Calcium	12		5.00	17.4		mg/L		104	75 - 125
Chromium	0.0015	J	0.0500	0.0546		mg/L		106	75 - 125
Cobalt	<0.00040		0.0500	0.0521		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0492		mg/L		98	75 - 125
Lithium	0.0057	F1	0.0500	0.0723	F1	mg/L		133	75 - 125
Molybdenum	0.00096	J	0.0500	0.0519		mg/L		102	75 - 125
Selenium	0.00074	J	0.0500	0.0500		mg/L		99	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

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

Lab Sample ID: 400-152145-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 394330

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0531		mg/L		106	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0512		mg/L		102	75 - 125	1	20
Barium	0.044		0.0500	0.0949		mg/L		103	75 - 125	1	20
Silver	<0.00011		0.0500	0.0507		mg/L		101	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125	1	20
Boron	0.022	J	0.100	0.129		mg/L		106	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	1	20
Calcium	12		5.00	17.3		mg/L		103	75 - 125	0	20
Chromium	0.0015	J	0.0500	0.0546		mg/L		106	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0522		mg/L		104	75 - 125	0	20
Lead	<0.00035		0.0500	0.0494		mg/L		99	75 - 125	0	20
Lithium	0.0057	F1	0.0500	0.0726	F1	mg/L		134	75 - 125	0	20
Molybdenum	0.00096	J	0.0500	0.0510		mg/L		100	75 - 125	2	20
Selenium	0.00074	J	0.0500	0.0484		mg/L		95	75 - 125	3	20
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-394619/14-A
Matrix: Water
Analysis Batch: 394938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 394619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/21/18 13:35	04/23/18 14:07	1

Lab Sample ID: LCS 400-394619/15-A
Matrix: Water
Analysis Batch: 394938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 394619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00111		mg/L		111	80 - 120

Lab Sample ID: 400-152145-B-2-C MS
Matrix: Water
Analysis Batch: 394938

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 394619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00214		mg/L		106	80 - 120

Lab Sample ID: 400-152145-B-2-D MSD
Matrix: Water
Analysis Batch: 394938

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 394619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00214		mg/L		106	80 - 120	0	20

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

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

Lab Sample ID: MB 400-393943/1
Matrix: Water
Analysis Batch: 393943

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	<3.4		5.0	3.4	mg/L			04/14/18 16:44	1

Lab Sample ID: LCS 400-393943/2
Matrix: Water
Analysis Batch: 393943

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	293	282		mg/L		96	78 - 122

Lab Sample ID: 400-151993-B-3 DU
Matrix: Water
Analysis Batch: 393943

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	170		172		mg/L		0	5

Lab Sample ID: MB 400-394035/1
Matrix: Water
Analysis Batch: 394035

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	<3.4		5.0	3.4	mg/L			04/16/18 12:04	1

Lab Sample ID: LCS 400-394035/2
Matrix: Water
Analysis Batch: 394035

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	293	246		mg/L		84	78 - 122

Lab Sample ID: 400-152147-8 DU
Matrix: Water
Analysis Batch: 394035

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		106		mg/L		0	5

Lab Sample ID: MB 400-394044/1
Matrix: Water
Analysis Batch: 394044

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	<3.4		5.0	3.4	mg/L			04/16/18 17:53	1

Lab Sample ID: LCS 400-394044/2
Matrix: Water
Analysis Batch: 394044

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	293	274		mg/L		94	78 - 122

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
 SDG: Ash Pond #3

Lab Sample ID: 400-152147-5 DU
Matrix: Water
Analysis Batch: 394044

Client Sample ID: ARGWA-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	60		60.0		mg/L		0	5

Lab Sample ID: 400-152147-6 DU
Matrix: Water
Analysis Batch: 394044

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	130		128		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3 Phase II CCR & State D&O							
Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION				ANALYSIS REQUESTED	CONTAINER TYPE PRESERVATION	# of CONTAINERS	RELINQUISHED BY:	DATE/TIME:
			C	O	R	A					
4-9-18	1615	GW	✓			ARGWA-13	Metals App. III & IV (EPA 6020/7470)	3	AP	4-11-18	
4-9-18	1805	GW	✓			ARGWA-14	Metals (see additional list below) (EPA 6020)	3	AP	4-11-18	
4-10-18	0915	W	✓			FB-1-4-10-18	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	3	AP	4-11-18	
4-10-18	1220	GW	✓			ARGWA-3	Radium 226 & 228 (SW-846 9315/9320)	3	AP	4-11-18	
4-10-18	1405	GW	✓			ARGWA-5		4	AP	4-11-18	
4-10-18	1357	GW	✓			ARBWA-12		3	AP	4-11-18	
4-10-18	1719	GW	✓			ARGWC-16		3	AP	4-11-18	
4-10-18	1554	GW	✓			ARBWC-17		3	AP	4-11-18	
4-10-18	1525	GW	✓			ARGWC-15		3	AP	4-11-18	
4-10-18	1740	GW	✓			ARGWC-7		3	AP	4-11-18	

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
G - CLEAR GLASS	3 - HNO ₃
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:
 DW - DRINKING WATER S - SOIL
 WW - WASTEWATER SL - SLUDGE
 GW - GROUNDWATER SD - SOLID
 SW - SURFACE WATER A - AIR
 ST - STORM WATER L - LIQUID
 W - WATER P - PRODUCT

LAB #: _____
 Entered into LIMS: _____
 Tracking #: _____

RELINQUISHED BY: *AP* DATE/TIME: 4-11-18 1230
 RELINQUISHED BY: *AP* DATE/TIME: 4-11-18 1610

RECEIVED BY LAB: *AP* DATE/TIME: 4-11-18 12:30
 RECEIVED BY: *AP* DATE/TIME: 4-11-18 12:30

Temperature: Min: _____ Max: _____

pH checked: Yes No NA Ice: Yes No NA

4/12/18 2.2°C JRS
 4/13/18 0.9°C JRS

Plant Arkwright - Ash Pond 3 COC.xlsx

4/27/2018



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-152147-1

SDG Number: Ash Pond #3

Login Number: 152147

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

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	2.2°C, 0.9°C IR-8
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	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-1
SDG: Ash Pond #3

Laboratory: 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	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18 *
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-152147-2

TestAmerica Sample Delivery Group: Ash Pond #3

Client Project/Site: CCR Plant Arkwright

For:

Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

5/13/2018 7:45:55 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

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:

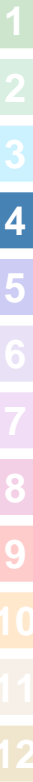
TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-152147-1	ARGWA-13	Water	04/09/18 16:15	04/13/18 09:10
400-152147-2	ARGWA-14	Water	04/09/18 18:05	04/13/18 09:10
400-152147-3	FB-1-4-10-18	Water	04/10/18 09:15	04/13/18 09:10
400-152147-4	ARGWA-3	Water	04/10/18 12:20	04/13/18 09:10
400-152147-5	ARGWA-5	Water	04/10/18 14:05	04/13/18 09:10
400-152147-6	ARGWA-12	Water	04/10/18 13:57	04/12/18 09:32
400-152147-7	ARGWC-16	Water	04/10/18 17:19	04/12/18 09:32
400-152147-8	ARGWC-17	Water	04/10/18 15:54	04/12/18 09:32
400-152147-9	ARGWC-15	Water	04/10/18 15:25	04/13/18 09:10
400-152147-10	ARGWC-7	Water	04/10/18 17:40	04/13/18 09:10



Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
 SDG: Ash Pond #3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-152147-1

Date Collected: 04/09/18 16:15

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00992	U	0.0384	0.0384	1.00	0.0755	pCi/L	04/18/18 14:27	05/10/18 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/18/18 14:27	05/10/18 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.147	U	0.192	0.192	1.00	0.319	pCi/L	04/18/18 14:40	04/24/18 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/18/18 14:40	04/24/18 15:17	1
Y Carrier	90.8		40 - 110					04/18/18 14:40	04/24/18 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	0.157	U	0.196	0.196	5.00	0.319	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-152147-2

Date Collected: 04/09/18 18:05

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.102		0.0630	0.0637	1.00	0.0829	pCi/L	04/18/18 14:27	05/10/18 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/18/18 14:27	05/10/18 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.204	U	0.201	0.201	1.00	0.325	pCi/L	04/18/18 14:40	04/24/18 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/18/18 14:40	04/24/18 15:17	1
Y Carrier	88.2		40 - 110					04/18/18 14:40	04/24/18 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	0.306	U	0.211	0.211	5.00	0.325	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: FB-1-4-10-18

Lab Sample ID: 400-152147-3

Date Collected: 04/10/18 09:15

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0788		0.0541	0.0545	1.00	0.0718	pCi/L	04/18/18 14:27	05/10/18 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/18 14:27	05/10/18 06:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.212	U	0.200	0.201	1.00	0.322	pCi/L	04/18/18 14:40	04/24/18 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/18 14:40	04/24/18 15:17	1
Y Carrier	93.5		40 - 110					04/18/18 14:40	04/24/18 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	0.291	U	0.207	0.208	5.00	0.322	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-152147-4

Date Collected: 04/10/18 12:20

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0221	U	0.0451	0.0451	1.00	0.0815	pCi/L	04/18/18 14:27	05/10/18 06:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					04/18/18 14:27	05/10/18 06:11	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	0.200	0.202	1.00	0.308	pCi/L	04/18/18 14:40	04/24/18 15:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					04/18/18 14:40	04/24/18 15:17	1
Y Carrier	92.7		40 - 110					04/18/18 14:40	04/24/18 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	0.323		0.205	0.207	5.00	0.308	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-152147-5

Date Collected: 04/10/18 14:05

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0444	U	0.0445	0.0447	1.00	0.0685	pCi/L	04/18/18 14:27	05/10/18 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/18/18 14:27	05/10/18 06:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.218	U	0.197	0.198	1.00	0.315	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	90.5		40 - 110					04/18/18 14:40	04/24/18 16:00	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	0.262	U	0.202	0.203	5.00	0.315	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
 SDG: Ash Pond #3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-152147-6

Date Collected: 04/10/18 13:57

Matrix: Water

Date Received: 04/12/18 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0923		0.0565	0.0571	1.00	0.0723	pCi/L	04/18/18 14:27	05/10/18 06:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					04/18/18 14:27	05/10/18 06:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.421		0.220	0.223	1.00	0.323	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	94.6		40 - 110					04/18/18 14:40	04/24/18 16:00	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	0.513		0.227	0.230	5.00	0.323	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
 SDG: Ash Pond #3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-152147-7

Date Collected: 04/10/18 17:19

Matrix: Water

Date Received: 04/12/18 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.143		0.0648	0.0660	1.00	0.0676	pCi/L	04/18/18 14:27	05/10/18 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 14:27	05/10/18 06:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.251	U	0.224	0.226	1.00	0.360	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	90.8		40 - 110					04/18/18 14:40	04/24/18 16:00	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	0.394		0.233	0.235	5.00	0.360	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-152147-8

Date Collected: 04/10/18 15:54

Matrix: Water

Date Received: 04/12/18 09:32

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117		0.0627	0.0636	1.00	0.0759	pCi/L	04/18/18 14:27	05/10/18 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/18 14:27	05/10/18 06:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.273	U	0.237	0.238	1.00	0.380	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	90.1		40 - 110					04/18/18 14:40	04/24/18 16:00	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	0.390		0.245	0.246	5.00	0.380	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-152147-9

Date Collected: 04/10/18 15:25

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0951		0.0630	0.0636	1.00	0.0858	pCi/L	04/18/18 14:27	05/10/18 06:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					04/18/18 14:27	05/10/18 06:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.509		0.257	0.261	1.00	0.377	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	92.0		40 - 110					04/18/18 14:40	04/24/18 16:00	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	0.604		0.265	0.269	5.00	0.377	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
 SDG: Ash Pond #3

Client Sample ID: ARGWC-7

Lab Sample ID: 400-152147-10

Date Collected: 04/10/18 17:40

Matrix: Water

Date Received: 04/13/18 09:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0266	U	0.0435	0.0436	1.00	0.0759	pCi/L	04/18/18 14:27	05/10/18 06:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/18/18 14:27	05/10/18 06:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.466		0.230	0.234	1.00	0.332	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	91.6		40 - 110					04/18/18 14:40	04/24/18 16:00	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	0.492		0.234	0.238	5.00	0.332	pCi/L		05/11/18 10:34	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWA-13

Date Collected: 04/09/18 16:15

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:11	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362306	04/24/18 15:17	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWA-14

Date Collected: 04/09/18 18:05

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:11	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362306	04/24/18 15:17	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: FB-1-4-10-18

Date Collected: 04/10/18 09:15

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:11	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362306	04/24/18 15:17	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWA-3

Date Collected: 04/10/18 12:20

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:11	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362306	04/24/18 15:17	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-152147-5

Date Collected: 04/10/18 14:05

Matrix: Water

Date Received: 04/13/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:12	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362308	04/24/18 16:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWA-12

Lab Sample ID: 400-152147-6

Date Collected: 04/10/18 13:57

Matrix: Water

Date Received: 04/12/18 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:13	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362308	04/24/18 16:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWC-16

Lab Sample ID: 400-152147-7

Date Collected: 04/10/18 17:19

Matrix: Water

Date Received: 04/12/18 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:12	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362308	04/24/18 16:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWC-17

Lab Sample ID: 400-152147-8

Date Collected: 04/10/18 15:54

Matrix: Water

Date Received: 04/12/18 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:12	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362308	04/24/18 16:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-15

Date Collected: 04/10/18 15:25

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:13	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362308	04/24/18 16:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWC-7

Date Collected: 04/10/18 17:40

Date Received: 04/13/18 09:10

Lab Sample ID: 400-152147-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361666	04/18/18 14:27	TJT	TAL SL
Total/NA	Analysis	9315		1	364917	05/10/18 06:13	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361667	04/18/18 14:40	TJT	TAL SL
Total/NA	Analysis	9320		1	362308	04/24/18 16:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Rad

Prep Batch: 361666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total/NA	Water	PrecSep-21	
400-152147-2	ARGWA-14	Total/NA	Water	PrecSep-21	
400-152147-3	FB-1-4-10-18	Total/NA	Water	PrecSep-21	
400-152147-4	ARGWA-3	Total/NA	Water	PrecSep-21	
400-152147-5	ARGWA-5	Total/NA	Water	PrecSep-21	
400-152147-6	ARGWA-12	Total/NA	Water	PrecSep-21	
400-152147-7	ARGWC-16	Total/NA	Water	PrecSep-21	
400-152147-8	ARGWC-17	Total/NA	Water	PrecSep-21	
400-152147-9	ARGWC-15	Total/NA	Water	PrecSep-21	
400-152147-10	ARGWC-7	Total/NA	Water	PrecSep-21	
MB 160-361666/13-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-361666/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-152147-5 DU	ARGWA-5	Total/NA	Water	PrecSep-21	

Prep Batch: 361667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152147-1	ARGWA-13	Total/NA	Water	PrecSep_0	
400-152147-2	ARGWA-14	Total/NA	Water	PrecSep_0	
400-152147-3	FB-1-4-10-18	Total/NA	Water	PrecSep_0	
400-152147-4	ARGWA-3	Total/NA	Water	PrecSep_0	
400-152147-5	ARGWA-5	Total/NA	Water	PrecSep_0	
400-152147-6	ARGWA-12	Total/NA	Water	PrecSep_0	
400-152147-7	ARGWC-16	Total/NA	Water	PrecSep_0	
400-152147-8	ARGWC-17	Total/NA	Water	PrecSep_0	
400-152147-9	ARGWC-15	Total/NA	Water	PrecSep_0	
400-152147-10	ARGWC-7	Total/NA	Water	PrecSep_0	
MB 160-361667/13-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-361667/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-152147-5 DU	ARGWA-5	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-361666/13-A
Matrix: Water
Analysis Batch: 364917

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361666

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01209	U	0.0287	0.0287	1.00	0.0708	pCi/L	04/18/18 14:27	05/10/18 06:13	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					04/18/18 14:27	05/10/18 06:13	1

Lab Sample ID: LCS 160-361666/1-A
Matrix: Water
Analysis Batch: 364917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361666

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.8	10.49		1.06	1.00	0.0695	pCi/L	89	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	104		40 - 110						

Lab Sample ID: 400-152147-5 DU
Matrix: Water
Analysis Batch: 364917

Client Sample ID: ARGWA-5
Prep Type: Total/NA
Prep Batch: 361666

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0444	U	0.03914	U	0.0426	1.00	0.0667	pCi/L	0.06	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	103		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-361667/13-A
Matrix: Water
Analysis Batch: 362308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361667

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.03215	U	0.178	0.178	1.00	0.317	pCi/L	04/18/18 14:40	04/24/18 16:00	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					04/18/18 14:40	04/24/18 16:00	1
Y Carrier	90.1		40 - 110					04/18/18 14:40	04/24/18 16:00	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
 SDG: Ash Pond #3

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

Lab Sample ID: LCS 160-361667/1-A
Matrix: Water
Analysis Batch: 362306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361667

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.37	8.881		1.03	1.00	0.374	pCi/L	106	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	85.6		40 - 110

Lab Sample ID: 400-152147-5 DU
Matrix: Water
Analysis Batch: 362308

Client Sample ID: ARGWA-5
Prep Type: Total/NA
Prep Batch: 361667

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.218	U	0.2326	U	0.202	1.00	0.320	pCi/L	0.04	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	93.1		40 - 110

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

Lab Sample ID: 400-152147-5 DU
Matrix: Water
Analysis Batch: 365230

Client Sample ID: ARGWA-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.262	U	0.2718	U	0.206	5.00	0.320	pCi/L	0.02	



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O						
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	CONTAINER TYPE: PRESERVATION	# of CONTAINERS	ANALYSIS REQUESTED	L A B I D N U M B E R	CONTAINER TYPE PRESERVATION
4-9-18	1615	GW	✓	✓	ARGWA-13		3			
4-9-18	1805	GW	✓	✓	ARGWA-14		3			
4-10-18	0915	W	✓	✓	FB-1-4-10-18		3			
4-10-18	1220	GW	✓	✓	ARGWA-3		3			
4-10-18	1405	GW	✓	✓	ARGWA-5		4			
4-10-18	1357	GW	✓	✓	ARBWA-12		3			
4-10-18	1719	GW	✓	✓	ARGWC-16		3			
4-10-18	1554	GW	✓	✓	ARBWC-17		3			
4-10-18	1525	GW	✓	✓	ARGWC-15		3			
4-10-18	1740	GW	✓	✓	ARGWC-7		3			
SAMPLED BY AND TITLE: C. Parker, B. Walker RECEIVED BY: 4-11-18 DATE/TIME: 4-10-18 1800 DATE/TIME: 4-11-18 12:30						RELINQUISHED BY: [Signature] DATE/TIME: 4-11-18 1230		FOR LAB USE ONLY LAB #: Entered into LIMS: Tracking #:		
RECEIVED BY LAB: [Signature] pH checked: Yes No NA Ice: Yes No NA Temperature: 4/12/18 0932 Min: Max:						SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS Custody Seal: Intact Broken Not Present # of Coolers		4/12/18 2.2°C JRS 4/13/18 0.9°C JRS		

Plant Arkwright - Ash Pond 3 COC.xlsx

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-152147-2

SDG Number: Ash Pond #3

Login Number: 152147

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

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.	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	2.2°C, 0.9°C IR-8
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").	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: 400-152147-2

SDG Number: Ash Pond #3

Login Number: 152147

List Number: 2

Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis

List Creation: 04/17/18 03:11 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	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?	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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

Laboratory: 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	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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	06-30-18 *
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	06-30-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18 *
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Michigan	State Program	5	9005	06-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542018-1	07-31-18

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

TestAmerica Pensacola

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152147-2
SDG: Ash Pond #3

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
New Jersey	NELAP	2	MO002	06-30-18 *
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18 *
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-152257-1

TestAmerica Sample Delivery Group: Ash Pond #3

Client Project/Site: CCR Plant Arkwright

For:

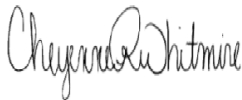
Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

4/27/2018 5:08:41 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Job ID: 400-152257-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-152257-1

HPLC/IC

Method(s) 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 395005 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Chloride and Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWC-8 (400-152257-1) and ARGWC-18 (400-152257-4). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 395187 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Chloride and Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 394335 and analytical batch 394514 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) 6020: The serial dilution performed for the following sample associated with batch 394514 was outside control limits: (400-152254-H-3-B SD)

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: ARGWC-18 (400-152257-4). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The method blank for preparation batch 393994 and analytical batch 394713 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-152257-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.7		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate - DL	69		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.0		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	44		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.037		0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-9

Lab Sample ID: 400-152257-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.90	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.052		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.010		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-10

Lab Sample ID: 400-152257-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0051		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0015	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-18

Lab Sample ID: 400-152257-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.090	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate - DL	200		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	44		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
 SDG: Ash Pond #3

Client Sample ID: ARGWC-18 (Continued)

Lab Sample ID: 400-152257-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0062		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - DL	2.7		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	430		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1-4-11-18

Lab Sample ID: 400-152257-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.028	J	0.050	0.021	mg/L	5		6020	Total Recoverable

Client Sample ID: DUP-1

Lab Sample ID: 400-152257-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.024	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0050		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0015	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-152257-1	ARGWC-8	Water	04/11/18 13:05	04/14/18 10:24
400-152257-2	ARGWC-9	Water	04/11/18 15:05	04/14/18 10:24
400-152257-3	ARGWC-10	Water	04/11/18 17:05	04/14/18 10:24
400-152257-4	ARGWC-18	Water	04/11/18 14:05	04/14/18 10:24
400-152257-5	EB-1-4-11-18	Water	04/11/18 10:00	04/14/18 10:24
400-152257-6	DUP-1	Water	04/11/18 00:00	04/14/18 10:24

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-152257-1

Date Collected: 04/11/18 13:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.89	mg/L			04/24/18 11:58	1
Fluoride	0.13	J	0.20	0.082	mg/L			04/24/18 11:58	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	69		5.0	3.5	mg/L			04/25/18 01:26	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:37	04/18/18 21:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:37	04/18/18 21:14	5
Barium	0.048		0.0025	0.00049	mg/L		04/18/18 11:37	04/18/18 21:14	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:37	04/18/18 21:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:14	5
Boron	1.0		0.050	0.021	mg/L		04/18/18 11:37	04/18/18 21:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:14	5
Calcium	44		0.25	0.13	mg/L		04/18/18 11:37	04/18/18 21:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:37	04/18/18 21:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:37	04/18/18 21:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:37	04/18/18 21:14	5
Lithium	0.0041	J	0.0050	0.0011	mg/L		04/18/18 11:37	04/18/18 21:14	5
Molybdenum	0.037		0.015	0.00085	mg/L		04/18/18 11:37	04/18/18 21:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:37	04/18/18 21:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:37	04/18/18 21:14	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		04/18/18 15:06	04/19/18 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			04/18/18 18:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-152257-2

Date Collected: 04/11/18 15:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.89	mg/L			04/24/18 15:55	1
Fluoride	<0.082		0.20	0.082	mg/L			04/24/18 15:55	1
Sulfate	0.90	J	1.0	0.70	mg/L			04/24/18 15:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:37	04/18/18 21:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:37	04/18/18 21:18	5
Barium	0.052		0.0025	0.00049	mg/L		04/18/18 11:37	04/18/18 21:18	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:37	04/18/18 21:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:18	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:37	04/18/18 21:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:18	5
Calcium	6.0		0.25	0.13	mg/L		04/18/18 11:37	04/18/18 21:18	5
Chromium	0.010		0.0025	0.0011	mg/L		04/18/18 11:37	04/18/18 21:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:37	04/18/18 21:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:37	04/18/18 21:18	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 11:37	04/18/18 21:18	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:37	04/18/18 21:18	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:37	04/18/18 21:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:37	04/18/18 21:18	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		04/18/18 15:06	04/19/18 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24		5.0	3.4	mg/L			04/18/18 18:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-152257-3

Date Collected: 04/11/18 17:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			04/24/18 16:17	1
Fluoride	<0.082		0.20	0.082	mg/L			04/24/18 16:17	1
Sulfate	<0.70		1.0	0.70	mg/L			04/24/18 16:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:37	04/18/18 21:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:37	04/18/18 21:23	5
Barium	0.034		0.0025	0.00049	mg/L		04/18/18 11:37	04/18/18 21:23	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:37	04/18/18 21:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:23	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:37	04/18/18 21:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:23	5
Calcium	7.4		0.25	0.13	mg/L		04/18/18 11:37	04/18/18 21:23	5
Chromium	0.0051		0.0025	0.0011	mg/L		04/18/18 11:37	04/18/18 21:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:37	04/18/18 21:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:37	04/18/18 21:23	5
Lithium	0.0015 J		0.0050	0.0011	mg/L		04/18/18 11:37	04/18/18 21:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:37	04/18/18 21:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:37	04/18/18 21:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:37	04/18/18 21:23	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		04/18/18 15:06	04/19/18 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			04/18/18 18:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-152257-4

Date Collected: 04/11/18 14:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9		1.0	0.89	mg/L			04/24/18 17:26	1
Fluoride	0.090	J	0.20	0.082	mg/L			04/24/18 17:26	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	200		5.0	3.5	mg/L			04/25/18 14:37	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:37	04/18/18 21:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:37	04/18/18 21:27	5
Barium	0.040		0.0025	0.00049	mg/L		04/18/18 11:37	04/18/18 21:27	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:37	04/18/18 21:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:37	04/18/18 21:27	5
Calcium	44		0.25	0.13	mg/L		04/18/18 11:37	04/18/18 21:27	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:37	04/18/18 21:27	5
Cobalt	0.0014	J	0.0025	0.00040	mg/L		04/18/18 11:37	04/18/18 21:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:37	04/18/18 21:27	5
Lithium	0.0062		0.0050	0.0011	mg/L		04/18/18 11:37	04/18/18 21:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:37	04/18/18 21:27	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:37	04/18/18 21:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:37	04/18/18 21:27	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.7		0.25	0.11	mg/L		04/18/18 11:37	04/19/18 15:43	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		04/16/18 09:12	04/20/18 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		5.0	3.4	mg/L			04/18/18 18:20	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: EB-1-4-11-18

Lab Sample ID: 400-152257-5

Date Collected: 04/11/18 10:00

Matrix: Water

Date Received: 04/14/18 10:24

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/24/18 17:49	1
Fluoride	<0.082		0.20	0.082	mg/L			04/24/18 17:49	1
Sulfate	<0.70		1.0	0.70	mg/L			04/24/18 17:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 12:04	04/18/18 21:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 12:04	04/18/18 21:32	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/18 12:04	04/18/18 21:32	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 12:04	04/18/18 21:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 12:04	04/18/18 21:32	5
Boron	0.028	J	0.050	0.021	mg/L		04/18/18 12:04	04/18/18 21:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 12:04	04/18/18 21:32	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/18 12:04	04/18/18 21:32	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 12:04	04/18/18 21:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 12:04	04/18/18 21:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 12:04	04/18/18 21:32	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 12:04	04/18/18 21:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 12:04	04/18/18 21:32	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 12:04	04/18/18 21:32	5
Thallium	<0.00085		0.00050	0.00085	mg/L		04/18/18 12:04	04/18/18 21:32	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		04/18/18 15:06	04/19/18 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			04/18/18 16:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: DUP-1

Date Collected: 04/11/18 00:00

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.89	mg/L			04/24/18 18:12	1
Fluoride	<0.082		0.20	0.082	mg/L			04/24/18 18:12	1
Sulfate	<0.70		1.0	0.70	mg/L			04/24/18 18:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 12:04	04/18/18 21:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 12:04	04/18/18 21:36	5
Barium	0.034		0.0025	0.00049	mg/L		04/18/18 12:04	04/18/18 21:36	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 12:04	04/18/18 21:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 12:04	04/18/18 21:36	5
Boron	0.024	J	0.050	0.021	mg/L		04/18/18 12:04	04/18/18 21:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 12:04	04/18/18 21:36	5
Calcium	7.3		0.25	0.13	mg/L		04/18/18 12:04	04/18/18 21:36	5
Chromium	0.0050		0.0025	0.0011	mg/L		04/18/18 12:04	04/18/18 21:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 12:04	04/18/18 21:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 12:04	04/18/18 21:36	5
Lithium	0.0015	J	0.0050	0.0011	mg/L		04/18/18 12:04	04/18/18 21:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 12:04	04/18/18 21:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 12:04	04/18/18 21:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 12:04	04/18/18 21:36	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		04/18/18 15:06	04/19/18 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	96		5.0	3.4	mg/L			04/16/18 17:53	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
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
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.
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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-8

Date Collected: 04/11/18 13:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	395005	04/24/18 11:58	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	395186	04/25/18 01:26	JAW	TAL PEN
Total Recoverable	Prep	3005A			394335	04/18/18 11:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 21:14	DRE	TAL PEN
Total/NA	Prep	7470A			394289	04/18/18 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	394548	04/19/18 14:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394348	04/18/18 18:20	RRC	TAL PEN

Client Sample ID: ARGWC-9

Date Collected: 04/11/18 15:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	395005	04/24/18 15:55	JAW	TAL PEN
Total Recoverable	Prep	3005A			394335	04/18/18 11:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 21:18	DRE	TAL PEN
Total/NA	Prep	7470A			394289	04/18/18 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	394548	04/19/18 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394348	04/18/18 18:20	RRC	TAL PEN

Client Sample ID: ARGWC-10

Date Collected: 04/11/18 17:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	395005	04/24/18 16:17	JAW	TAL PEN
Total Recoverable	Prep	3005A			394335	04/18/18 11:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 21:23	DRE	TAL PEN
Total/NA	Prep	7470A			394289	04/18/18 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	394548	04/19/18 14:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394348	04/18/18 18:20	RRC	TAL PEN

Client Sample ID: ARGWC-18

Date Collected: 04/11/18 14:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	395005	04/24/18 17:26	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	395187	04/25/18 14:37	JAW	TAL PEN
Total Recoverable	Prep	3005A			394335	04/18/18 11:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 21:27	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		394335	04/18/18 11:37	DRE	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-152257-4

Date Collected: 04/11/18 14:05

Matrix: Water

Date Received: 04/14/18 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020	DL	25	394645	04/19/18 15:43	DRE	TAL PEN
Total/NA	Prep	7470A			393994	04/16/18 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	394713	04/20/18 16:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394348	04/18/18 18:20	RRC	TAL PEN

Client Sample ID: EB-1-4-11-18

Lab Sample ID: 400-152257-5

Date Collected: 04/11/18 10:00

Matrix: Water

Date Received: 04/14/18 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	395005	04/24/18 17:49	JAW	TAL PEN
Total Recoverable	Prep	3005A			394335	04/18/18 12:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 21:32	DRE	TAL PEN
Total/NA	Prep	7470A			394289	04/18/18 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	394548	04/19/18 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394351	04/18/18 16:00	RRC	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-152257-6

Date Collected: 04/11/18 00:00

Matrix: Water

Date Received: 04/14/18 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	395005	04/24/18 18:12	JAW	TAL PEN
Total Recoverable	Prep	3005A			394335	04/18/18 12:04	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	394514	04/18/18 21:36	DRE	TAL PEN
Total/NA	Prep	7470A			394289	04/18/18 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	394548	04/19/18 14:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	394044	04/16/18 17:53	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

HPLC/IC

Analysis Batch: 395005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total/NA	Water	300.0	
400-152257-2	ARGWC-9	Total/NA	Water	300.0	
400-152257-3	ARGWC-10	Total/NA	Water	300.0	
400-152257-4	ARGWC-18	Total/NA	Water	300.0	
400-152257-5	EB-1-4-11-18	Total/NA	Water	300.0	
400-152257-6	DUP-1	Total/NA	Water	300.0	
MB 400-395005/36	Method Blank	Total/NA	Water	300.0	
LCS 400-395005/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-395005/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-152228-A-9 MS	Matrix Spike	Total/NA	Water	300.0	
400-152228-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 395186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1 - DL	ARGWC-8	Total/NA	Water	300.0	
MB 400-395186/4	Method Blank	Total/NA	Water	300.0	
LCS 400-395186/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-395186/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-152228-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-152228-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 395187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-4 - DL	ARGWC-18	Total/NA	Water	300.0	
MB 400-395187/36	Method Blank	Total/NA	Water	300.0	
LCS 400-395187/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-395187/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-152356-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-152356-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 393994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-4	ARGWC-18	Total/NA	Water	7470A	
MB 400-393994/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-393994/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-152070-A-11-B MS	Matrix Spike	Total/NA	Water	7470A	
400-152070-A-11-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 394289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total/NA	Water	7470A	
400-152257-2	ARGWC-9	Total/NA	Water	7470A	
400-152257-3	ARGWC-10	Total/NA	Water	7470A	
400-152257-5	EB-1-4-11-18	Total/NA	Water	7470A	
400-152257-6	DUP-1	Total/NA	Water	7470A	
MB 400-394289/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-394289/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-152207-I-3-B MS	Matrix Spike	Dissolved	Water	7470A	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Metals (Continued)

Prep Batch: 394289 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152207-I-3-C MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	

Prep Batch: 394335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total Recoverable	Water	3005A	
400-152257-2	ARGWC-9	Total Recoverable	Water	3005A	
400-152257-3	ARGWC-10	Total Recoverable	Water	3005A	
400-152257-4 - DL	ARGWC-18	Total Recoverable	Water	3005A	
400-152257-4	ARGWC-18	Total Recoverable	Water	3005A	
400-152257-5	EB-1-4-11-18	Total Recoverable	Water	3005A	
400-152257-6	DUP-1	Total Recoverable	Water	3005A	
MB 400-394335/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-394335/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-152254-H-3-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-152254-H-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 394514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total Recoverable	Water	6020	394335
400-152257-2	ARGWC-9	Total Recoverable	Water	6020	394335
400-152257-3	ARGWC-10	Total Recoverable	Water	6020	394335
400-152257-4	ARGWC-18	Total Recoverable	Water	6020	394335
400-152257-5	EB-1-4-11-18	Total Recoverable	Water	6020	394335
400-152257-6	DUP-1	Total Recoverable	Water	6020	394335
MB 400-394335/1-A ^5	Method Blank	Total Recoverable	Water	6020	394335
LCS 400-394335/2-A	Lab Control Sample	Total Recoverable	Water	6020	394335
400-152254-H-3-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	394335
400-152254-H-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	394335

Analysis Batch: 394548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total/NA	Water	7470A	394289
400-152257-2	ARGWC-9	Total/NA	Water	7470A	394289
400-152257-3	ARGWC-10	Total/NA	Water	7470A	394289
400-152257-5	EB-1-4-11-18	Total/NA	Water	7470A	394289
400-152257-6	DUP-1	Total/NA	Water	7470A	394289
MB 400-394289/14-A	Method Blank	Total/NA	Water	7470A	394289
LCS 400-394289/15-A	Lab Control Sample	Total/NA	Water	7470A	394289
400-152207-I-3-B MS	Matrix Spike	Dissolved	Water	7470A	394289
400-152207-I-3-C MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	394289

Analysis Batch: 394645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-4 - DL	ARGWC-18	Total Recoverable	Water	6020	394335

Analysis Batch: 394713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-4	ARGWC-18	Total/NA	Water	7470A	393994
MB 400-393994/14-A	Method Blank	Total/NA	Water	7470A	393994
LCS 400-393994/15-A	Lab Control Sample	Total/NA	Water	7470A	393994
400-152070-A-11-B MS	Matrix Spike	Total/NA	Water	7470A	393994

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Metals (Continued)

Analysis Batch: 394713 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152070-A-11-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	393994

General Chemistry

Analysis Batch: 394044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-6	DUP-1	Total/NA	Water	SM 2540C	
MB 400-394044/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-394044/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-152147-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 394348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total/NA	Water	SM 2540C	
400-152257-2	ARGWC-9	Total/NA	Water	SM 2540C	
400-152257-3	ARGWC-10	Total/NA	Water	SM 2540C	
400-152257-4	ARGWC-18	Total/NA	Water	SM 2540C	
MB 400-394348/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-394348/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-152181-E-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 394351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-5	EB-1-4-11-18	Total/NA	Water	SM 2540C	
MB 400-394351/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-394351/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-152183-B-4 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-395005/36
Matrix: Water
Analysis Batch: 395005

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/24/18 04:44	1
Fluoride	<0.082		0.20	0.082	mg/L			04/24/18 04:44	1
Sulfate	<0.70		1.0	0.70	mg/L			04/24/18 04:44	1

Lab Sample ID: LCS 400-395005/37
Matrix: Water
Analysis Batch: 395005

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.58		mg/L		96	90 - 110
Fluoride	10.0	9.95		mg/L		99	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 400-395005/38
Matrix: Water
Analysis Batch: 395005

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.59		mg/L		96	90 - 110	0	15
Fluoride	10.0	9.92		mg/L		99	90 - 110	0	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	15

Lab Sample ID: 400-152228-A-9 MS
Matrix: Water
Analysis Batch: 395005

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	49		10.0	57.9	E 4	mg/L		89	80 - 120
Fluoride	<0.082		10.0	10.0		mg/L		100	80 - 120
Sulfate	48		10.0	57.9	E 4	mg/L		97	80 - 120

Lab Sample ID: 400-152228-A-9 MSD
Matrix: Water
Analysis Batch: 395005

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	49		10.0	57.8	E 4	mg/L		89	80 - 120	0	20
Fluoride	<0.082		10.0	10.0		mg/L		100	80 - 120	0	20
Sulfate	48		10.0	57.8	E 4	mg/L		96	80 - 120	0	20

Lab Sample ID: MB 400-395186/4
Matrix: Water
Analysis Batch: 395186

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/24/18 19:20	1
Fluoride	<0.082		0.20	0.082	mg/L			04/24/18 19:20	1
Sulfate	<0.70		1.0	0.70	mg/L			04/24/18 19:20	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-395186/5
Matrix: Water
Analysis Batch: 395186

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.55		mg/L		95	90 - 110
Fluoride	10.0	9.86		mg/L		99	90 - 110
Sulfate	10.0	9.62		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-395186/6
Matrix: Water
Analysis Batch: 395186

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.49		mg/L		95	90 - 110	1	15
Fluoride	10.0	9.82		mg/L		98	90 - 110	0	15
Sulfate	10.0	9.63		mg/L		96	90 - 110	0	15

Lab Sample ID: 400-152228-A-1 MS
Matrix: Water
Analysis Batch: 395186

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100		200	294		mg/L		95	80 - 120
Fluoride	<1.6		200	197		mg/L		98	80 - 120
Sulfate	390		200	571		mg/L		92	80 - 120

Lab Sample ID: 400-152228-A-1 MSD
Matrix: Water
Analysis Batch: 395186

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		200	296		mg/L		96	80 - 120	1	20
Fluoride	<1.6		200	197		mg/L		99	80 - 120	0	20
Sulfate	390		200	577		mg/L		95	80 - 120	1	20

Lab Sample ID: MB 400-395187/36
Matrix: Water
Analysis Batch: 395187

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			04/25/18 08:03	1
Fluoride	<0.082		0.20	0.082	mg/L			04/25/18 08:03	1
Sulfate	<0.70		1.0	0.70	mg/L			04/25/18 08:03	1

Lab Sample ID: LCS 400-395187/37
Matrix: Water
Analysis Batch: 395187

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.51		mg/L		95	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	9.61		mg/L		96	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-395187/38
Matrix: Water
Analysis Batch: 395187

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.53		mg/L		95	90 - 110	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.60		mg/L		96	90 - 110	0	15

Lab Sample ID: 400-152356-B-1 MS
Matrix: Water
Analysis Batch: 395187

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	190	E	10.0	201	E 4	mg/L		81	80 - 120		
Fluoride	<0.082		10.0	11.5		mg/L		115	80 - 120		
Sulfate	44		10.0	53.6	E 4	mg/L		91	80 - 120		

Lab Sample ID: 400-152356-B-1 MSD
Matrix: Water
Analysis Batch: 395187

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	190	E	10.0	202	E 4	mg/L		91	80 - 120	1	20
Fluoride	<0.082		10.0	11.2		mg/L		112	80 - 120	3	20
Sulfate	44		10.0	53.8	E 4	mg/L		93	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-394335/1-A ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 394335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/18/18 11:36	04/18/18 19:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/18/18 11:36	04/18/18 19:44	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/18/18 11:36	04/18/18 19:44	5
Silver	<0.00011		0.0013	0.00011	mg/L		04/18/18 11:36	04/18/18 19:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:36	04/18/18 19:44	5
Boron	<0.021		0.050	0.021	mg/L		04/18/18 11:36	04/18/18 19:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/18/18 11:36	04/18/18 19:44	5
Calcium	<0.13		0.25	0.13	mg/L		04/18/18 11:36	04/18/18 19:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/18/18 11:36	04/18/18 19:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/18/18 11:36	04/18/18 19:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/18/18 11:36	04/18/18 19:44	5
Lithium	<0.0011		0.0050	0.0011	mg/L		04/18/18 11:36	04/18/18 19:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/18/18 11:36	04/18/18 19:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/18/18 11:36	04/18/18 19:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/18/18 11:36	04/18/18 19:44	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

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

Lab Sample ID: LCS 400-394335/2-A
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 394335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0522		mg/L		104	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0528		mg/L		106	80 - 120
Silver	0.0500	0.0492		mg/L		98	80 - 120
Beryllium	0.0500	0.0500		mg/L		100	80 - 120
Boron	0.100	0.0990		mg/L		99	80 - 120
Cadmium	0.0500	0.0522		mg/L		104	80 - 120
Calcium	5.00	5.17		mg/L		103	80 - 120
Chromium	0.0500	0.0531		mg/L		106	80 - 120
Cobalt	0.0500	0.0553		mg/L		111	80 - 120
Lead	0.0500	0.0535		mg/L		107	80 - 120
Lithium	0.0500	0.0501		mg/L		100	80 - 120
Molybdenum	0.0500	0.0514		mg/L		103	80 - 120
Selenium	0.0500	0.0475		mg/L		95	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

Lab Sample ID: 400-152254-H-3-C MS ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 394335

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0015	J	0.0500	0.0562		mg/L		109	75 - 125
Arsenic	0.00047	J	0.0500	0.0529		mg/L		105	75 - 125
Barium	0.16		0.0500	0.216		mg/L		109	75 - 125
Silver	<0.00011		0.0500	0.0495		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0509		mg/L		102	75 - 125
Boron	0.11		0.100	0.216		mg/L		105	75 - 125
Cadmium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125
Calcium	74		5.00	79.0	4	mg/L		96	75 - 125
Chromium	<0.0011		0.0500	0.0541		mg/L		108	75 - 125
Cobalt	0.00090	J	0.0500	0.0522		mg/L		103	75 - 125
Lead	<0.00035		0.0500	0.0486		mg/L		97	75 - 125
Lithium	0.0048	J F1	0.0500	0.0712	F1	mg/L		133	75 - 125
Molybdenum	0.00099	J	0.0500	0.0532		mg/L		104	75 - 125
Selenium	0.0030		0.0500	0.0504		mg/L		95	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

Lab Sample ID: 400-152254-H-3-D MSD ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 394335

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.0015	J	0.0500	0.0546		mg/L		106	75 - 125	3	20
Arsenic	0.00047	J	0.0500	0.0524		mg/L		104	75 - 125	1	20
Barium	0.16		0.0500	0.216		mg/L		109	75 - 125	0	20
Silver	<0.00011		0.0500	0.0495		mg/L		99	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	2	20
Boron	0.11		0.100	0.218		mg/L		106	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

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

Lab Sample ID: 400-152254-H-3-D MSD ^5
Matrix: Water
Analysis Batch: 394514

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 394335

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cadmium	<0.00034		0.0500	0.0508		mg/L		102	75 - 125	3	20
Calcium	74		5.00	78.9	4	mg/L		93	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0541		mg/L		108	75 - 125	0	20
Cobalt	0.00090	J	0.0500	0.0519		mg/L		102	75 - 125	1	20
Lead	<0.00035		0.0500	0.0488		mg/L		98	75 - 125	0	20
Lithium	0.0048	J F1	0.0500	0.0723	F1	mg/L		135	75 - 125	2	20
Molybdenum	0.00099	J	0.0500	0.0524		mg/L		103	75 - 125	2	20
Selenium	0.0030		0.0500	0.0501		mg/L		94	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-393994/14-A
Matrix: Water
Analysis Batch: 394713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 393994

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.0000781	J	0.00020	0.000070	mg/L		04/16/18 09:12	04/20/18 15:07	1

Lab Sample ID: LCS 400-393994/15-A
Matrix: Water
Analysis Batch: 394713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 393994

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.00101	0.00111		mg/L		110	80 - 120

Lab Sample ID: 400-152070-A-11-B MS
Matrix: Water
Analysis Batch: 394713

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 393994

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00217		mg/L		108	80 - 120

Lab Sample ID: 400-152070-A-11-C MSD
Matrix: Water
Analysis Batch: 394713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 393994

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00209		mg/L		104	80 - 120	4	20

Lab Sample ID: MB 400-394289/14-A
Matrix: Water
Analysis Batch: 394548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 394289

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		04/18/18 09:40	04/19/18 13:41	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

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

Lab Sample ID: LCS 400-394289/15-A
Matrix: Water
Analysis Batch: 394548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 394289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00107		mg/L		106	80 - 120

Lab Sample ID: 400-152207-I-3-B MS
Matrix: Water
Analysis Batch: 394548

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 394289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00204		mg/L		101	80 - 120

Lab Sample ID: 400-152207-I-3-C MSD
Matrix: Water
Analysis Batch: 394548

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 394289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00205		mg/L		102	80 - 120	0	20

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

Lab Sample ID: MB 400-394044/1
Matrix: Water
Analysis Batch: 394044

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	<3.4		5.0	3.4	mg/L			04/16/18 17:53	1

Lab Sample ID: LCS 400-394044/2
Matrix: Water
Analysis Batch: 394044

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	274		mg/L		94	78 - 122

Lab Sample ID: 400-152147-A-5 DU
Matrix: Water
Analysis Batch: 394044

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	60		60.0		mg/L		0	5

Lab Sample ID: MB 400-394348/1
Matrix: Water
Analysis Batch: 394348

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	<3.4		5.0	3.4	mg/L			04/18/18 18:20	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

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

Lab Sample ID: LCS 400-394348/2
Matrix: Water
Analysis Batch: 394348

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	293	254		mg/L		87	78 - 122

Lab Sample ID: 400-152181-E-5 DU
Matrix: Water
Analysis Batch: 394348

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		114		mg/L		0	5

Lab Sample ID: MB 400-394351/1
Matrix: Water
Analysis Batch: 394351

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	<3.4		5.0	3.4	mg/L			04/18/18 16:00	1

Lab Sample ID: LCS 400-394351/2
Matrix: Water
Analysis Batch: 394351

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	293	266		mg/L		91	78 - 122

Lab Sample ID: 400-152183-B-4 DU
Matrix: Water
Analysis Batch: 394351

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	320		320		mg/L		0	5

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: Email: JAbraham@southernco.com Project Name: CCR Plant Arkwright - Ash Ponds #3 Site: Georgia		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): Acc to TA-ATL Page 4 of 8 Job #: 2 of 2		COC No: 400-73521-29028.1					
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007712 SSOW#:		Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007712 SSOW#:		Analysis Requested 300_ORGM_28D - Chloride, Fluoride & Sulfate, 2540C - TDS 6020-Sb,As,Ba,Bi,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,7470A-Hg 9315_Ra226,9320_Ra228, Ra228, Ra228a228_GFPc - Radium 9315_Ra226,9320_Ra228, Ra228, Ra228a228_GFPc - Radium Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)					
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefl, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226,9320_Ra228, Ra228, Ra228a228_GFPc - Radium	6020-Sb,As,Ba,Bi,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,7470A-Hg	300_ORGM_28D - Chloride, Fluoride & Sulfate, 2540C - TDS	Total Number of Containers	Special Instructions/Note:
AR6WC-8	4-11-18	1305	G	Water	N	N	N	N	3		
AR6WC-9	4-11-18	1505	G	Water	N	N	N	N	3		
AR6WC-10	4-11-18	1705	G	Water	N	N	N	N	3		
AR6WC-18	4-11-18	1405	G	Water	N	N	N	N	3		
EB-1-4-11-18	4-11-18	1000	G	Water	N	N	N	N	3		
DUP-1	4-11-18	—	G	Water	N	N	N	N	3		
				Water							
				Water							
				Water							
				Water							
				Water							

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: 4-12-18 11:50 Company: ACC

Relinquished by: _____ Date/Time: 4/12/18 16:00 Company: AAA

Relinquished by: _____ Date/Time: 4-14-18 10:27 Company: AAA

Custody Seals Intact: Yes No **Custody Seal No.:** 1, 9, 18

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Method of Shipment: _____

Received by: _____ Date/Time: 4-12-18 11:50 Company: AAA

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: 4-14-18 10:27 Company: AAA

Cooler Temperature(s) °C and Other Remarks: 1.9° C IR



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-152257-1

SDG Number: Ash Pond #3

Login Number: 152257

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9°C IR-7
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-1
SDG: Ash Pond #3

Laboratory: 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	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18 *
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-152257-2

TestAmerica Sample Delivery Group: Ash Pond #3

Client Project/Site: CCR Plant Arkwright

For:

Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

5/13/2018 7:46:29 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@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.

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

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

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-152257-1	ARGWC-8	Water	04/11/18 13:05	04/14/18 10:24
400-152257-2	ARGWC-9	Water	04/11/18 15:05	04/14/18 10:24
400-152257-3	ARGWC-10	Water	04/11/18 17:05	04/14/18 10:24
400-152257-4	ARGWC-18	Water	04/11/18 14:05	04/14/18 10:24
400-152257-5	EB-1-4-11-18	Water	04/11/18 10:00	04/14/18 10:24
400-152257-6	DUP-1	Water	04/11/18 00:00	04/14/18 10:24

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Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-152257-1

Date Collected: 04/11/18 13:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192		0.0845	0.0863	1.00	0.0949	pCi/L	04/18/18 13:31	05/10/18 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 13:31	05/10/18 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.170	U	0.185	0.186	1.00	0.304	pCi/L	04/18/18 13:59	04/24/18 09:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 13:59	04/24/18 09:01	1
Y Carrier	94.6		40 - 110					04/18/18 13:59	04/24/18 09:01	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		0.203	0.205	5.00	0.304	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-152257-2

Date Collected: 04/11/18 15:05

Matrix: Water

Date Received: 04/14/18 10:24

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	0.0438	0.0439	1.00	0.0795	pCi/L	04/18/18 13:31	05/10/18 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					04/18/18 13:31	05/10/18 06:28	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	0.205	0.207	1.00	0.318	pCi/L	04/18/18 13:59	04/24/18 09:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					04/18/18 13:59	04/24/18 09:03	1
Y Carrier	92.7		40 - 110					04/18/18 13:59	04/24/18 09:03	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	0.322		0.210	0.212	5.00	0.318	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-152257-3

Date Collected: 04/11/18 17:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0780		0.0546	0.0551	1.00	0.0712	pCi/L	04/18/18 13:31	05/10/18 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 13:31	05/10/18 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0918	U	0.193	0.193	1.00	0.330	pCi/L	04/18/18 13:59	04/24/18 09:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 13:59	04/24/18 09:04	1
Y Carrier	90.8		40 - 110					04/18/18 13:59	04/24/18 09:04	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	0.170	U	0.201	0.201	5.00	0.330	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-152257-4

Date Collected: 04/11/18 14:05

Matrix: Water

Date Received: 04/14/18 10:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0865		0.0575	0.0581	1.00	0.0749	pCi/L	04/18/18 13:31	05/10/18 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					04/18/18 13:31	05/10/18 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.245	U	0.212	0.213	1.00	0.339	pCi/L	04/18/18 13:59	04/24/18 09:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					04/18/18 13:59	04/24/18 09:04	1
Y Carrier	88.2		40 - 110					04/18/18 13:59	04/24/18 09:04	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	0.331	U	0.220	0.221	5.00	0.339	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
 SDG: Ash Pond #3

Client Sample ID: EB-1-4-11-18

Lab Sample ID: 400-152257-5

Date Collected: 04/11/18 10:00

Matrix: Water

Date Received: 04/14/18 10:24

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0449	U	0.0527	0.0529	1.00	0.0856	pCi/L	04/18/18 13:31	05/10/18 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 13:31	05/10/18 08:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.115	U	0.205	0.206	1.00	0.349	pCi/L	04/18/18 13:59	04/24/18 09:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					04/18/18 13:59	04/24/18 09:04	1
Y Carrier	82.2		40 - 110					04/18/18 13:59	04/24/18 09:04	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	0.159	U	0.212	0.213	5.00	0.349	pCi/L		05/11/18 10:34	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: DUP-1

Date Collected: 04/11/18 00:00

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-6

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	0.0605	U	0.0618	0.0620	1.00	0.0971	pCi/L	04/18/18 13:31	05/10/18 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/18 13:31	05/10/18 08:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.186	U	0.212	0.212	1.00	0.348	pCi/L	04/18/18 13:59	04/24/18 09:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/18 13:59	04/24/18 09:04	1
Y Carrier	87.1		40 - 110					04/18/18 13:59	04/24/18 09:04	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	0.246	U	0.221	0.221	5.00	0.348	pCi/L		05/11/18 10:34	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: ARGWC-8

Date Collected: 04/11/18 13:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361659	04/18/18 13:31	TJT	TAL SL
Total/NA	Analysis	9315		1	365002	05/10/18 06:28	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361663	04/18/18 13:59	TJT	TAL SL
Total/NA	Analysis	9320		1	362306	04/24/18 09:01	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWC-9

Date Collected: 04/11/18 15:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361659	04/18/18 13:31	TJT	TAL SL
Total/NA	Analysis	9315		1	365002	05/10/18 06:28	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361663	04/18/18 13:59	TJT	TAL SL
Total/NA	Analysis	9320		1	362310	04/24/18 09:03	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWC-10

Date Collected: 04/11/18 17:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361659	04/18/18 13:31	TJT	TAL SL
Total/NA	Analysis	9315		1	365002	05/10/18 06:28	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361663	04/18/18 13:59	TJT	TAL SL
Total/NA	Analysis	9320		1	362310	04/24/18 09:04	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: ARGWC-18

Date Collected: 04/11/18 14:05

Date Received: 04/14/18 10:24

Lab Sample ID: 400-152257-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361659	04/18/18 13:31	TJT	TAL SL
Total/NA	Analysis	9315		1	365002	05/10/18 06:28	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361663	04/18/18 13:59	TJT	TAL SL
Total/NA	Analysis	9320		1	362310	04/24/18 09:04	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Client Sample ID: EB-1-4-11-18

Lab Sample ID: 400-152257-5

Date Collected: 04/11/18 10:00

Matrix: Water

Date Received: 04/14/18 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361659	04/18/18 13:31	TJT	TAL SL
Total/NA	Analysis	9315		1	365002	05/10/18 08:16	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361663	04/18/18 13:59	TJT	TAL SL
Total/NA	Analysis	9320		1	362310	04/24/18 09:04	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Client Sample ID: DUP-1

Lab Sample ID: 400-152257-6

Date Collected: 04/11/18 00:00

Matrix: Water

Date Received: 04/14/18 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			361659	04/18/18 13:31	TJT	TAL SL
Total/NA	Analysis	9315		1	365002	05/10/18 08:16	CDR	TAL SL
Total/NA	Prep	PrecSep_0			361663	04/18/18 13:59	TJT	TAL SL
Total/NA	Analysis	9320		1	362310	04/24/18 09:04	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	365230	05/11/18 10:34	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Rad

Prep Batch: 361659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total/NA	Water	PrecSep-21	
400-152257-2	ARGWC-9	Total/NA	Water	PrecSep-21	
400-152257-3	ARGWC-10	Total/NA	Water	PrecSep-21	
400-152257-4	ARGWC-18	Total/NA	Water	PrecSep-21	
400-152257-5	EB-1-4-11-18	Total/NA	Water	PrecSep-21	
400-152257-6	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-361659/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-361659/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
180-76795-B-1-E DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 361663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-152257-1	ARGWC-8	Total/NA	Water	PrecSep_0	
400-152257-2	ARGWC-9	Total/NA	Water	PrecSep_0	
400-152257-3	ARGWC-10	Total/NA	Water	PrecSep_0	
400-152257-4	ARGWC-18	Total/NA	Water	PrecSep_0	
400-152257-5	EB-1-4-11-18	Total/NA	Water	PrecSep_0	
400-152257-6	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-361663/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-361663/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-76795-B-1-F DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-361659/23-A
Matrix: Water
Analysis Batch: 365002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361659

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04068	U	0.0567	0.0568	1.00	0.0960	pCi/L	04/18/18 13:31	05/10/18 08:17	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/18/18 13:31	05/10/18 08:17	1

Lab Sample ID: LCS 160-361659/1-A
Matrix: Water
Analysis Batch: 364917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361659

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.8	10.58		1.08	1.00	0.0678	pCi/L	90	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	100		40 - 110						

Lab Sample ID: 180-76795-B-1-E DU
Matrix: Water
Analysis Batch: 364918

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 361659

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.258		0.1589		0.0708	1.00	0.0736	pCi/L	0.63	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	104		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-361663/23-A
Matrix: Water
Analysis Batch: 362310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361663

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.07061	U	0.240	0.240	1.00	0.415	pCi/L	04/18/18 13:59	04/24/18 09:04	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/18/18 13:59	04/24/18 09:04	1
Y Carrier	83.4		40 - 110					04/18/18 13:59	04/24/18 09:04	1

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

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

Lab Sample ID: LCS 160-361663/1-A
Matrix: Water
Analysis Batch: 362306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361663

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.37	8.314		0.977	1.00	0.361	pCi/L	99	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	88.2		40 - 110

Lab Sample ID: 180-76795-B-1-F DU
Matrix: Water
Analysis Batch: 362306

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 361663

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.286	U	0.3444		0.214	1.00	0.322	pCi/L	0.14	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	93.1		40 - 110


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

Lab Sample ID: 180-76634-A-4 DU
Matrix: Water
Analysis Batch: 365230

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	1.06		0.9950		0.293	5.00	0.389	pCi/L	0.12	

Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: [blank] Email: JAbraham@southernco.com Project Name: CCR Plant Arkwright - Ash Ponds #3 Site: Georgia		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): Acc to TA-ATL Page 4 of 4 Job #: 2 of 2						
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: [blank] Project #: 40007712 SSOW#: [blank]		Analysis Requested 400-152257 COC 		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: [blank] M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - PH 4-5 Z - other (specify)						
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefl, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020-Sb,As,Ba,Bi,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,7470A-Hg	300_ORGM_28D - Chloride, Fluoride & Sulfate, 2540C-TDS	Total Number of containers	Special Instructions/Note:
AR6WC-8	4-11-18	1305	G	Water	N	N	V	V	3	
AR6WC-9	4-11-18	1505	G	Water	N	N	V	V	3	
AR6WC-10	4-11-18	1705	G	Water	N	N	V	V	3	
AR6WC-18	4-11-18	1405	G	Water	N	N	V	V	3	
EB-1-4-11-18	4-11-18	1000	G	Water	N	N	V	V	3	
DUP-1	4-11-18	—	G	Water	N	N	V	V	3	
				Water						
				Water						
				Water						
				Water						
				Water						
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements:										
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: 4-12-18 11:50 Company: ACC Relinquished by: _____ Date/Time: 16:00 Company: AAA Relinquished by: _____ Date/Time: 4-14-18 10:27 Company: AAA Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 1.9° C IR										

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-152257-2

SDG Number: Ash Pond #3

Login Number: 152257

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9°C IR-7
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").	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: 400-152257-2

SDG Number: Ash Pond #3

Login Number: 152257

List Number: 2

Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis

List Creation: 04/17/18 03:04 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	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?	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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

Laboratory: 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	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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	06-30-18 *
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	06-30-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18 *
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Michigan	State Program	5	9005	06-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542018-1	07-31-18

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

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-152257-2
SDG: Ash Pond #3

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
New Jersey	NELAP	2	MO002	06-30-18 *
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18 *
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

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

Product Name: Low-Flow System

Date: 2018-04-10 12:26:55

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 40 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 36.03 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5774637 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 40 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%	+/- 0		+/- 0.2	+/- 0
Last 5	11:57:06	9299.89	18.83	5.84	96.16	10.00	36.40	6.16	81.67
Last 5	12:02:06	9599.88	18.91	5.82	96.20	11.00	36.40	6.16	83.34
Last 5	12:07:06	9899.88	18.91	5.83	96.04	10.00	36.40	6.16	82.55
Last 5	12:12:06	10199.88	18.88	5.85	95.93	9.12	36.40	6.14	81.78
Last 5	12:17:06	10499.87	18.85	5.85	95.92	8.81	36.40	6.14	80.93
Variance 0			0.01	0.00	-0.16			-0.00	-0.79
Variance 1			-0.04	0.02	-0.11			-0.03	-0.77
Variance 2			-0.03	0.00	-0.01			0.00	-0.85

Notes

Collected at 12:20. Sunny 60s. FB 1 here at 09:15

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-10 14:00:51

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 33 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 23.60 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.537293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 18 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%	+/- 0		+/- 0.2	+/- 0
Last 5	13:39:25	2100.00	18.36	5.68	87.61	3.05	23.80	4.68	89.21
Last 5	13:44:25	2399.99	18.42	5.68	87.83	2.55	23.80	4.64	88.55
Last 5	13:49:25	2699.99	18.43	5.59	88.25	2.36	23.80	4.65	93.45
Last 5	13:54:25	2999.99	18.35	5.65	88.59	2.77	23.80	4.66	89.20
Last 5	13:59:25	3299.98	18.34	5.58	88.91	2.37	23.80	4.68	89.97
Variance 0			0.01	-0.09	0.42			0.01	4.90
Variance 1			-0.09	0.06	0.34			0.01	-4.24
Variance 2			-0.00	-0.07	0.32			0.02	0.77

Notes

Collected at 14:05. Cloudy 60s. Extra Rad here

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-10 13:58:12

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 407446
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 32 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.35 ft
Screen Length 10 ft
Depth to Water 16.81 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6988875 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.68 in
Total Volume Pumped 18 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	13:37:27	3600.97	18.07	5.96	178.82	7.66	17.70	1.11	632.17
Last 5	13:42:27	3900.95	18.04	5.96	178.56	6.12	17.70	1.10	623.91
Last 5	13:47:27	4200.95	18.09	5.96	178.43	7.14	17.70	1.11	624.18
Last 5	13:52:26	4500.94	18.04	5.97	178.80	5.52	17.70	1.12	623.65
Last 5	13:57:26	4800.94	17.99	5.95	179.55	4.98	17.70	1.11	620.27
Variance 0			0.06	0.01	-0.13			0.01	0.27
Variance 1			-0.05	0.01	0.37			0.01	-0.53
Variance 2			-0.05	-0.01	0.75			-0.01	-3.38

Notes

Sampled at 13:57. Cloudy 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-09 16:15:48

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 24.95 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 0.6769272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:53:54	1802.00	16.76	5.92	766.95	2.49	25.30	1.50	106.11
Last 5	15:58:54	2102.00	16.83	5.85	732.15	2.31	25.30	1.59	105.83
Last 5	16:03:54	2401.99	16.83	5.81	710.14	2.04	25.30	1.67	105.83
Last 5	16:08:54	2701.99	16.82	5.79	691.47	1.63	25.30	1.74	104.94
Last 5	16:13:54	3001.98	16.91	5.78	680.23	1.74	25.30	1.77	105.12
Variance 0			0.00	-0.04	-22.00			0.07	0.00
Variance 1			-0.00	-0.02	-18.67			0.07	-0.90
Variance 2			0.09	-0.02	-11.24			0.03	0.18

Notes

Collected at 16:15. Cloudy 50s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-09 18:03:43

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 48 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 43.18 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 0.7438785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 45 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	17:38:14	2701.99	16.37	6.71	633.19	2.01	46.70	2.01	83.77
Last 5	17:43:14	3001.98	16.29	6.67	594.87	1.79	46.80	1.85	83.02
Last 5	17:48:14	3301.97	16.24	6.65	562.19	3.09	46.80	1.70	81.65
Last 5	17:53:14	3601.98	15.95	6.62	546.66	2.46	46.90	1.70	82.09
Last 5	17:58:14	3901.96	15.57	6.60	537.04	2.78	47.00	1.74	82.37
Variance 0			-0.05	-0.02	-32.68			-0.15	-1.37
Variance 1			-0.29	-0.03	-15.53			0.01	0.43
Variance 2			-0.38	-0.02	-9.63			0.03	0.28

Notes

Collected at 18:05. Cloudy 50s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-10 17:36:21

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.32 ft
Screen Length 10 ft
Depth to Water 23.8 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.9483311 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	17:15:06	600.02	18.55	5.57	204.30	5.40	24.00	4.92	88.47
Last 5	17:20:06	900.02	18.54	5.61	204.69	5.14	24.00	4.92	84.31
Last 5	17:25:06	1200.02	18.56	5.61	204.84	4.75	24.00	4.92	84.20
Last 5	17:30:06	1500.01	18.52	5.54	204.91	4.08	24.00	4.92	87.47
Last 5	17:35:06	1800.01	18.51	5.60	204.86	3.89	24.00	4.92	84.16
Variance 0			0.02	0.00	0.15			-0.00	-0.11
Variance 1			-0.04	-0.07	0.06			-0.00	3.27
Variance 2			-0.01	0.06	-0.05			0.00	-3.31

Notes

Collected at 15:40. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-11 13:05:42

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 25.15 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.9000674 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 52 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%	+/- 0		+/- 0.2	+/- 0
Last 5	12:41:24	11399.85	19.90	6.32	529.03	11.00	25.40	0.22	73.00
Last 5	12:46:24	11699.84	19.88	6.35	528.77	10.00	25.40	0.23	73.37
Last 5	12:51:25	12000.84	19.91	6.34	528.79	10.00	25.40	0.23	73.43
Last 5	12:56:25	12300.83	19.86	6.35	529.10	9.90	25.40	0.23	74.03
Last 5	13:01:25	12600.84	19.86	6.34	529.14	9.73	25.40	0.22	72.15
Variance 0			0.03	-0.01	0.02			0.00	0.06
Variance 1			-0.05	0.01	0.30			-0.00	0.59
Variance 2			-0.00	-0.01	0.04			-0.00	-1.87

Notes

Collected at 13:05. Sunny 60s. EB 1 here at 10:00 - gloves

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-11 15:06:03

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.07 ft
Screen Length 10 ft
Depth to Water 21.50 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.8518038 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 6.5 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%	+/- 0		+/- 0.2	+/- 0
Last 5	14:44:00	900.01	19.71	5.54	102.68	9.02	21.60	5.12	80.85
Last 5	14:49:00	1200.01	19.70	5.66	102.53	7.86	21.60	5.10	76.66
Last 5	14:54:00	1499.99	19.60	5.70	102.79	5.93	21.60	5.15	76.69
Last 5	14:59:00	1800.00	19.66	5.71	102.71	5.55	21.60	5.16	78.03
Last 5	15:04:00	2100.01	19.66	5.69	102.72	4.86	21.60	5.15	80.31
Variance 0			-0.11	0.04	0.27			0.05	0.03
Variance 1			0.07	0.01	-0.08			0.01	1.34
Variance 2			-0.00	-0.01	0.01			-0.01	2.28

Notes

Collected at 15:05. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-11 17:03:22

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 21.90 ft

Pumping Information:

Final Pumping Rate 270 mL/min
Total System Volume 0.8518038 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 24 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%	+/- 0		+/- 0.2	+/- 0
Last 5	16:40:53	3899.98	18.70	5.80	120.81	6.83	22.20	4.15	83.95
Last 5	16:45:53	4199.97	18.67	5.80	120.79	5.99	22.20	4.17	84.36
Last 5	16:50:55	4501.96	18.74	5.69	120.72	5.18	22.20	4.16	90.87
Last 5	16:55:55	4801.95	18.74	5.68	120.64	4.94	22.20	4.16	93.26
Last 5	17:00:55	5101.96	18.79	5.72	120.64	4.81	22.20	4.15	89.48
Variance 0			0.07	-0.12	-0.07			-0.01	6.51
Variance 1			0.00	-0.01	-0.08			0.01	2.39
Variance 2			0.05	0.04	0.01			-0.02	-3.79

Notes

Collected at 17:05. Sunny 70s. DUP 1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-10 15:24:52

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 42 ft

Pump placement from TOC 37 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 30.3 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 0.8904147 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15 in
Total Volume Pumped 3.3 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:00:02	1500.01	19.86	6.23	267.03	2.10	31.20	3.46	91.00
Last 5	15:05:02	1800.01	20.17	6.22	262.65	2.34	31.30	3.25	88.65
Last 5	15:10:02	2100.01	20.21	6.22	258.46	2.41	31.40	3.06	88.09
Last 5	15:15:02	2400.00	20.30	6.21	257.72	2.30	31.50	2.98	85.28
Last 5	15:20:02	2699.99	20.14	6.17	257.30	2.44	31.50	2.91	86.40
Variance 0			0.04	-0.01	-4.19			-0.19	-0.55
Variance 1			0.09	-0.01	-0.74			-0.08	-2.81
Variance 2			-0.16	-0.04	-0.42			-0.07	1.12

Notes

Collected at 15:25. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-10 17:20:29

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 407446
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 34 ft

Pump placement from TOC 29 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 21.27 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7181929 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.36 in
Total Volume Pumped 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%	+/- 10		+/- 10%	+/- 10
Last 5	16:59:37	1200.01	20.35	5.28	358.93	3.59	21.30	0.81	1090.81
Last 5	17:04:37	1500.01	20.35	5.29	356.96	1.95	21.30	0.87	1094.70
Last 5	17:09:37	1800.00	20.22	5.29	360.28	1.41	21.30	0.81	1100.50
Last 5	17:14:37	2100.00	20.25	5.32	359.69	0.85	21.30	0.44	1103.03
Last 5	17:19:37	2400.00	20.13	5.34	360.02	0.74	21.30	0.48	1105.82
Variance 0			-0.13	-0.00	3.31			-0.06	5.79
Variance 1			0.03	0.03	-0.59			-0.37	2.53
Variance 2			-0.12	0.02	0.33			0.04	2.80

Notes

Sampled at 17:19. Sunny, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-10 15:55:23

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 407446
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 33 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 22.5 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7085401 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.8 in
Total Volume Pumped 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%	+/- 10		+/- 10%	+/- 10
Last 5	15:34:11	3899.95	20.82	5.50	199.93	4.05	22.90	0.63	1043.53
Last 5	15:39:14	4202.94	20.98	5.49	198.92	3.70	22.90	0.54	1047.82
Last 5	15:44:14	4502.94	21.33	5.48	198.10	3.81	22.90	0.46	1054.10
Last 5	15:49:14	4802.94	21.30	5.47	197.53	2.86	22.90	0.40	1065.75
Last 5	15:54:14	5102.93	21.42	5.46	196.40	2.24	22.90	0.36	1071.02
Variance 0			0.36	-0.01	-0.82			-0.08	6.29
Variance 1			-0.03	-0.01	-0.57			-0.06	11.65
Variance 2			0.12	-0.01	-1.13			-0.04	5.27

Notes

Sampled at 15:54. Sunny, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-11 14:01:59

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 55 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 27.97 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.9676365 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 60 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%	+/- 0		+/- 0.2	+/- 0
Last 5	13:38:09	600.01	20.24	5.69	683.19	8.92	28.40	0.39	84.87
Last 5	13:43:09	900.02	20.16	5.83	685.26	9.17	24.80	0.32	75.12
Last 5	13:48:09	1200.01	20.21	5.91	684.95	8.85	24.80	0.27	68.51
Last 5	13:53:09	1500.00	20.16	5.90	684.06	9.35	24.80	0.24	67.38
Last 5	13:58:09	1800.01	20.15	5.87	685.20	9.12	24.80	0.29	67.25
Variance 0			0.05	0.08	-0.31			-0.05	-6.62
Variance 1			-0.05	-0.01	-0.89			-0.04	-1.12
Variance 2			-0.02	-0.02	1.14			0.05	-0.13

Notes

Collected at 14:05. Sunny 70s. Purge started at 8:30

Grab Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-160832-1

TestAmerica Sample Delivery Group: Ash Pond 3

Client Project/Site: CCR Plant Arkwright

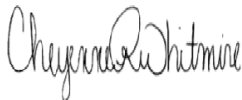
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

11/1/2018 5:43:50 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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results through

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Job ID: 400-160832-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-160832-1

HPLC/IC

Method(s) 300.0: The continuing calibration verification (CCV) associated with batch 417404 recovered above the upper control limit for Fluoride and Sulfate. The samples associated with this CCV were not detected above the RL for the affected analytes; therefore, the data have been reported. The following samples are impacted: ARGWA-3 (400-160832-1), ARGWA-5 (400-160832-2) and ARGWA-12 (400-160832-3).

Method(s) 300.0: The following sample was diluted due to conductivity: ARGWA-13 (400-160832-4). Elevated reporting limits (RL) are provided.

Method(s) 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 417671 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-160832-4), ARGWC-16 (400-160832-6), DUP-1 (400-160832-7), ARGWC-18 (400-160832-8) and ARGWC-8 (400-160832-9). Elevated reporting limits (RLs) are provided.

Metals

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: ARGWA-13 (400-160832-4), DUP-1 (400-160832-7) and ARGWC-18 (400-160832-8). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-160832-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0035		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0017	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-5

Lab Sample ID: 400-160832-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-12

Lab Sample ID: 400-160832-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	10		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.069		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.023	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0045	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-13

Lab Sample ID: 400-160832-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.0		2.0	1.8	mg/L	2		300.0	Total/NA
Sulfate - DL	520		20	14	mg/L	20		300.0	Total/NA
Arsenic	0.00055	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.34		0.050	0.021	mg/L	5		6020	Total Recoverable
Lithium	0.0057		0.0050	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-13 (Continued)

Lab Sample ID: 400-160832-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.021		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Calcium - DL	110		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	910		10	6.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWA-14

Lab Sample ID: 400-160832-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.33		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00083	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.046	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Cadmium	0.00071	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	41		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0052		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-16

Lab Sample ID: 400-160832-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate - DL	84		2.0	1.4	mg/L	2		300.0	Total/NA
Barium	0.039		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.048	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0016	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.00072	J	0.0013	0.00071	mg/L	5		6020	Total Recoverable
Mercury	0.000070	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 400-160832-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.0		2.0	1.8	mg/L	2		300.0	Total/NA
Sulfate - DL	520		20	14	mg/L	20		300.0	Total/NA
Arsenic	0.00056	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 400-160832-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.34		0.050	0.021	mg/L	5		6020	Total Recoverable
Lithium	0.0060		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.021		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Calcium - DL	110		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	920		10	6.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-18

Lab Sample ID: 400-160832-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.11	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate - DL	190		5.0	3.5	mg/L	5		300.0	Total/NA
Arsenic	0.00066	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.039		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	49		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0012	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0049	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - DL	2.2		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	470		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-8

Lab Sample ID: 400-160832-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.16	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate - DL	67		2.0	1.4	mg/L	2		300.0	Total/NA
Arsenic	0.00063	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.3		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	52		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0037	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.036		0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-7

Lab Sample ID: 400-160832-10

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-7 (Continued)

Lab Sample ID: 400-160832-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.8		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	42		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.084		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0036		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0025	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-15

Lab Sample ID: 400-160832-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	6.8		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.0016		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-17

Lab Sample ID: 400-160832-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	47		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.014		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0014	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-9

Lab Sample ID: 400-160832-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.95	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0096		0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-9 (Continued)

Lab Sample ID: 400-160832-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: ARGWC-10

Lab Sample ID: 400-160832-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0051		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0011	J	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-1-10-17-18

Lab Sample ID: 400-160832-15

No Detections.

Client Sample ID: FB-1-10-17-18

Lab Sample ID: 400-160832-16

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-160832-1	ARGWA-3	Water	10/16/18 16:16	10/19/18 09:04
400-160832-2	ARGWA-5	Water	10/16/18 18:00	10/19/18 09:04
400-160832-3	ARGWA-12	Water	10/16/18 16:15	10/19/18 09:04
400-160832-4	ARGWA-13	Water	10/16/18 14:40	10/19/18 09:04
400-160832-5	ARGWA-14	Water	10/16/18 12:45	10/19/18 09:04
400-160832-6	ARGWC-16	Water	10/16/18 17:28	10/19/18 09:04
400-160832-7	DUP-1	Water	10/16/18 00:00	10/19/18 09:04
400-160832-8	ARGWC-18	Water	10/17/18 09:45	10/19/18 09:04
400-160832-9	ARGWC-8	Water	10/17/18 11:15	10/19/18 09:04
400-160832-10	ARGWC-7	Water	10/17/18 14:28	10/19/18 09:04
400-160832-11	ARGWC-15	Water	10/17/18 09:41	10/19/18 09:04
400-160832-12	ARGWC-17	Water	10/17/18 12:49	10/19/18 09:04
400-160832-13	ARGWC-9	Water	10/17/18 12:25	10/19/18 09:04
400-160832-14	ARGWC-10	Water	10/17/18 13:25	10/19/18 09:04
400-160832-15	EB-1-10-17-18	Water	10/17/18 12:00	10/19/18 09:04
400-160832-16	FB-1-10-17-18	Water	10/17/18 11:15	10/19/18 09:04

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-160832-1

Date Collected: 10/16/18 16:16

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.89	mg/L			10/30/18 00:06	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/30/18 00:06	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 00:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 18:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 18:53	5
Barium	0.018		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 18:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 18:53	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 18:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 18:53	5
Calcium	5.8		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 18:53	5
Chromium	0.0035		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 18:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 18:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 18:53	5
Lithium	0.0017	J	0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 18:53	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 18:53	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 18:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 18:53	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		10/31/18 10:33	11/01/18 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			10/22/18 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-5

Date Collected: 10/16/18 18:00

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.89	mg/L			10/30/18 00:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 00:29	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 00:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 19:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 19:33	5
Barium	0.027		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 19:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:33	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 19:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:33	5
Calcium	5.6		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 19:33	5
Chromium	0.0012 J		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 19:33	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 19:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 19:33	5
Lithium	<0.0011		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 19:33	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 19:33	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 19:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 19:33	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		10/31/18 10:33	11/01/18 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			10/22/18 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-160832-3

Date Collected: 10/16/18 16:15

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.89	mg/L			10/30/18 00:52	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/30/18 00:52	1
Sulfate	10		1.0	0.70	mg/L			10/31/18 04:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 19:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 19:38	5
Barium	0.069		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 19:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:38	5
Boron	0.023	J	0.050	0.021	mg/L		10/23/18 12:12	10/23/18 19:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:38	5
Calcium	12		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 19:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 19:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 19:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 19:38	5
Lithium	0.0045	J	0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 19:38	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 19:38	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 19:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 19:38	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		10/31/18 10:33	11/01/18 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			10/22/18 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-160832-4

Date Collected: 10/16/18 14:40

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		2.0	1.8	mg/L			10/30/18 21:48	2
Fluoride	<0.16		0.40	0.16	mg/L			10/30/18 21:48	2

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	520		20	14	mg/L			10/30/18 20:17	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 19:42	5
Arsenic	0.00055	J	0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 19:42	5
Barium	0.028		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 19:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:42	5
Boron	0.34		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 19:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 19:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 19:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 19:42	5
Lithium	0.0057		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 19:42	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 19:42	5
Selenium	0.021		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 19:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 19:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110		1.3	0.63	mg/L		10/23/18 12:12	10/24/18 14:54	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		10/31/18 10:33	11/01/18 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	910		10	6.8	mg/L			10/22/18 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-160832-5

Date Collected: 10/16/18 12:45

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.89	mg/L			10/30/18 09:15	1
Fluoride	0.33		0.20	0.082	mg/L			10/30/18 09:15	1
Sulfate	14		1.0	0.70	mg/L			10/30/18 09:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 19:46	5
Arsenic	0.00083	J	0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 19:46	5
Barium	0.060		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 19:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:46	5
Boron	0.046	J	0.050	0.021	mg/L		10/23/18 12:12	10/23/18 19:46	5
Cadmium	0.00071	J	0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:46	5
Calcium	41		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 19:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 19:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 19:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 19:46	5
Lithium	0.0052		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 19:46	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 19:46	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 19:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 19:46	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		10/31/18 10:33	11/01/18 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	48		5.0	3.4	mg/L			10/22/18 17:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-160832-6

Date Collected: 10/16/18 17:28

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		1.0	0.89	mg/L			10/30/18 18:00	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 18:00	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	84		2.0	1.4	mg/L			10/31/18 21:25	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 19:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 19:51	5
Barium	0.039		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 19:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:51	5
Boron	0.048 J		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 19:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:51	5
Calcium	16		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 19:51	5
Chromium	0.0013 J		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 19:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 19:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 19:51	5
Lithium	0.0016 J		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 19:51	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 19:51	5
Selenium	0.00072 J		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 19:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 19:51	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		10/31/18 10:33	11/01/18 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			10/23/18 11:59	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: DUP-1

Date Collected: 10/16/18 00:00

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		2.0	1.8	mg/L			10/31/18 19:31	2
Fluoride	<0.16		0.40	0.16	mg/L			10/31/18 19:31	2

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	520		20	14	mg/L			10/31/18 22:34	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 19:55	5
Arsenic	0.00056	J	0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 19:55	5
Barium	0.027		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 19:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:55	5
Boron	0.34		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 19:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 19:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 19:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 19:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 19:55	5
Lithium	0.0060		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 19:55	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 19:55	5
Selenium	0.021		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 19:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 19:55	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110		1.3	0.63	mg/L		10/23/18 12:12	10/24/18 14:58	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		10/31/18 10:33	11/01/18 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	920		10	6.8	mg/L			10/22/18 14:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-160832-8

Date Collected: 10/17/18 09:45

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		1.0	0.89	mg/L			10/30/18 11:54	1
Fluoride	0.11	J	0.20	0.082	mg/L			10/30/18 11:54	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	190		5.0	3.5	mg/L			10/31/18 22:57	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:00	5
Arsenic	0.00066	J	0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:00	5
Barium	0.039		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:00	5
Calcium	49		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:00	5
Cobalt	0.0012	J	0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:00	5
Lithium	0.0049	J	0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:00	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:00	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:00	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.2		0.25	0.11	mg/L		10/23/18 12:12	10/24/18 15:03	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		10/31/18 10:33	11/01/18 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	470		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-160832-9

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		1.0	0.89	mg/L			10/30/18 12:17	1
Fluoride	0.16	J	0.20	0.082	mg/L			10/30/18 12:17	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	67		2.0	1.4	mg/L			10/31/18 19:08	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:04	5
Arsenic	0.00063	J	0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:04	5
Barium	0.045		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:04	5
Boron	1.3		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:04	5
Calcium	52		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:04	5
Lithium	0.0037	J	0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:04	5
Molybdenum	0.036		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:04	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:04	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		10/31/18 10:33	11/01/18 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-7

Date Collected: 10/17/18 14:28

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		1.0	0.89	mg/L			10/30/18 12:40	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 12:40	1
Sulfate	42		1.0	0.70	mg/L			10/30/18 12:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:27	5
Barium	0.038		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:27	5
Boron	0.084		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:27	5
Calcium	11		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:27	5
Chromium	0.0036		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:27	5
Lithium	0.0025 J		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:27	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:27	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:27	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		10/31/18 10:33	11/01/18 15:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-160832-11

Date Collected: 10/17/18 09:41

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		1.0	0.89	mg/L			10/30/18 13:49	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/30/18 13:49	1
Sulfate	6.8		1.0	0.70	mg/L			10/30/18 13:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:31	5
Barium	0.028		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:31	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:31	5
Calcium	21		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:31	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:31	5
Lead	0.0016		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:31	5
Lithium	<0.0011		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:31	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:31	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:31	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		10/31/18 10:33	11/01/18 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-160832-12

Date Collected: 10/17/18 12:49

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			10/30/18 14:12	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 14:12	1
Sulfate	47		1.0	0.70	mg/L			10/30/18 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:36	5
Barium	0.043		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:36	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:36	5
Calcium	10		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:36	5
Cobalt	0.014		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:36	5
Lithium	0.0014 J		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:36	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:36	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:36	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		10/31/18 10:33	11/01/18 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-160832-13

Date Collected: 10/17/18 12:25

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.89	mg/L			10/30/18 14:34	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 14:34	1
Sulfate	0.95	J	1.0	0.70	mg/L			10/30/18 14:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:40	5
Barium	0.046		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:40	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:40	5
Calcium	5.8		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:40	5
Chromium	0.0096		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:40	5
Lithium	<0.0011		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:40	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:40	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:40	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		10/31/18 10:33	11/01/18 15:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	96		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-160832-14

Date Collected: 10/17/18 13:25

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.89	mg/L			10/30/18 14:57	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 14:57	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 14:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:45	5
Barium	0.031		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:45	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:45	5
Calcium	7.1		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:45	5
Chromium	0.0051		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:45	5
Lithium	0.0011	J	0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:45	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:45	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:45	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		10/31/18 10:33	11/01/18 15:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: EB-1-10-17-18

Lab Sample ID: 400-160832-15

Date Collected: 10/17/18 12:00

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/30/18 15:20	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 15:20	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:49	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:49	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:49	5
Calcium	<0.13		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:49	5
Lithium	<0.0011		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:49	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:49	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:49	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		10/31/18 10:33	11/01/18 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/24/18 12:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: FB-1-10-17-18

Lab Sample ID: 400-160832-16

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/30/18 15:43	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 15:43	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 15:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 20:54	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 20:54	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 20:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:54	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 20:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 20:54	5
Calcium	<0.13		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 20:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 20:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 20:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 20:54	5
Lithium	<0.0011		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 20:54	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 20:54	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 20:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 20:54	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		10/31/18 10:33	11/01/18 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/24/18 12:23	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

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.
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.
E	Result exceeded calibration range.

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-3

Date Collected: 10/16/18 16:16

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417404	10/30/18 00:06	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 18:53	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 14:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416491	10/22/18 17:15	CLB	TAL PEN

Client Sample ID: ARGWA-5

Date Collected: 10/16/18 18:00

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417404	10/30/18 00:29	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 19:33	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 14:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416491	10/22/18 17:15	CLB	TAL PEN

Client Sample ID: ARGWA-12

Date Collected: 10/16/18 16:15

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417404	10/30/18 00:52	BAW	TAL PEN
Total/NA	Analysis	300.0		1	417671	10/31/18 04:17	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 19:38	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416491	10/22/18 17:15	CLB	TAL PEN

Client Sample ID: ARGWA-13

Date Collected: 10/16/18 14:40

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	20	417671	10/30/18 20:17	BAW	TAL PEN
Total/NA	Analysis	300.0		2	417671	10/30/18 21:48	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 19:42	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		416586	10/23/18 12:12	DRE	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-160832-4

Date Collected: 10/16/18 14:40

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020	DL	25	416892	10/24/18 14:54	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416491	10/22/18 17:15	CLB	TAL PEN

Client Sample ID: ARGWA-14

Lab Sample ID: 400-160832-5

Date Collected: 10/16/18 12:45

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 09:15	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 19:46	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416491	10/22/18 17:15	CLB	TAL PEN

Client Sample ID: ARGWC-16

Lab Sample ID: 400-160832-6

Date Collected: 10/16/18 17:28

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417671	10/30/18 18:00	BAW	TAL PEN
Total/NA	Analysis	300.0	DL	2	417783	10/31/18 21:25	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 19:51	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416581	10/23/18 11:59	CLB	TAL PEN

Client Sample ID: DUP-1

Lab Sample ID: 400-160832-7

Date Collected: 10/16/18 00:00

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	417783	10/31/18 19:31	BAW	TAL PEN
Total/NA	Analysis	300.0	DL	20	417783	10/31/18 22:34	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 19:55	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	416892	10/24/18 14:58	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: DUP-1

Date Collected: 10/16/18 00:00

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	418016	11/01/18 15:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416446	10/22/18 14:36	CLB	TAL PEN

Client Sample ID: ARGWC-18

Date Collected: 10/17/18 09:45

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 11:54	BAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	417783	10/31/18 22:57	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:00	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	416892	10/24/18 15:03	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Client Sample ID: ARGWC-8

Date Collected: 10/17/18 11:15

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 12:17	BAW	TAL PEN
Total/NA	Analysis	300.0	DL	2	417783	10/31/18 19:08	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:04	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Client Sample ID: ARGWC-7

Date Collected: 10/17/18 14:28

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 12:40	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:27	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-160832-11

Date Collected: 10/17/18 09:41

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 13:49	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:31	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Client Sample ID: ARGWC-17

Lab Sample ID: 400-160832-12

Date Collected: 10/17/18 12:49

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 14:12	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:36	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Client Sample ID: ARGWC-9

Lab Sample ID: 400-160832-13

Date Collected: 10/17/18 12:25

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 14:34	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:40	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Client Sample ID: ARGWC-10

Lab Sample ID: 400-160832-14

Date Collected: 10/17/18 13:25

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 14:57	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:45	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 15:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Client Sample ID: EB-1-10-17-18

Lab Sample ID: 400-160832-15

Date Collected: 10/17/18 12:00

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 15:20	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:49	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 16:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Client Sample ID: FB-1-10-17-18

Lab Sample ID: 400-160832-16

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417570	10/30/18 15:43	BAW	TAL PEN
Total Recoverable	Prep	3005A			416586	10/23/18 12:12	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 20:54	DRE	TAL PEN
Total/NA	Prep	7470A			417787	10/31/18 10:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	418016	11/01/18 16:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	416766	10/24/18 12:23	CLB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

HPLC/IC

Analysis Batch: 417404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total/NA	Water	300.0	
400-160832-2	ARGWA-5	Total/NA	Water	300.0	
400-160832-3	ARGWA-12	Total/NA	Water	300.0	
MB 400-417404/22	Method Blank	Total/NA	Water	300.0	
LCS 400-417404/23	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417404/24	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160841-W-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-160841-W-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 417570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-5	ARGWA-14	Total/NA	Water	300.0	
400-160832-8	ARGWC-18	Total/NA	Water	300.0	
400-160832-9	ARGWC-8	Total/NA	Water	300.0	
400-160832-10	ARGWC-7	Total/NA	Water	300.0	
400-160832-11	ARGWC-15	Total/NA	Water	300.0	
400-160832-12	ARGWC-17	Total/NA	Water	300.0	
400-160832-13	ARGWC-9	Total/NA	Water	300.0	
400-160832-14	ARGWC-10	Total/NA	Water	300.0	
400-160832-15	EB-1-10-17-18	Total/NA	Water	300.0	
400-160832-16	FB-1-10-17-18	Total/NA	Water	300.0	
MB 400-417570/4	Method Blank	Total/NA	Water	300.0	
LCS 400-417570/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417570/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160841-W-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-160841-W-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 417671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-3	ARGWA-12	Total/NA	Water	300.0	
400-160832-4 - DL	ARGWA-13	Total/NA	Water	300.0	
400-160832-4	ARGWA-13	Total/NA	Water	300.0	
400-160832-6	ARGWC-16	Total/NA	Water	300.0	
MB 400-417671/37	Method Blank	Total/NA	Water	300.0	
LCS 400-417671/38	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417671/39	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160832-6 MS	ARGWC-16	Total/NA	Water	300.0	
400-160832-6 MSD	ARGWC-16	Total/NA	Water	300.0	

Analysis Batch: 417783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-6 - DL	ARGWC-16	Total/NA	Water	300.0	
400-160832-7	DUP-1	Total/NA	Water	300.0	
400-160832-7 - DL	DUP-1	Total/NA	Water	300.0	
400-160832-8 - DL	ARGWC-18	Total/NA	Water	300.0	
400-160832-9 - DL	ARGWC-8	Total/NA	Water	300.0	
MB 400-417783/19	Method Blank	Total/NA	Water	300.0	
LCS 400-417783/20	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417783/21	Lab Control Sample Dup	Total/NA	Water	300.0	
400-161253-I-2 MS	Matrix Spike	Total/NA	Water	300.0	
400-161253-I-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Metals

Prep Batch: 416586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total Recoverable	Water	3005A	
400-160832-2	ARGWA-5	Total Recoverable	Water	3005A	
400-160832-3	ARGWA-12	Total Recoverable	Water	3005A	
400-160832-4 - DL	ARGWA-13	Total Recoverable	Water	3005A	
400-160832-4	ARGWA-13	Total Recoverable	Water	3005A	
400-160832-5	ARGWA-14	Total Recoverable	Water	3005A	
400-160832-6	ARGWC-16	Total Recoverable	Water	3005A	
400-160832-7	DUP-1	Total Recoverable	Water	3005A	
400-160832-7 - DL	DUP-1	Total Recoverable	Water	3005A	
400-160832-8 - DL	ARGWC-18	Total Recoverable	Water	3005A	
400-160832-8	ARGWC-18	Total Recoverable	Water	3005A	
400-160832-9	ARGWC-8	Total Recoverable	Water	3005A	
400-160832-10	ARGWC-7	Total Recoverable	Water	3005A	
400-160832-11	ARGWC-15	Total Recoverable	Water	3005A	
400-160832-12	ARGWC-17	Total Recoverable	Water	3005A	
400-160832-13	ARGWC-9	Total Recoverable	Water	3005A	
400-160832-14	ARGWC-10	Total Recoverable	Water	3005A	
400-160832-15	EB-1-10-17-18	Total Recoverable	Water	3005A	
400-160832-16	FB-1-10-17-18	Total Recoverable	Water	3005A	
MB 400-416586/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-416586/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-160832-1 MS	ARGWA-3	Total Recoverable	Water	3005A	
400-160832-1 MSD	ARGWA-3	Total Recoverable	Water	3005A	

Analysis Batch: 416741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total Recoverable	Water	6020	416586
400-160832-2	ARGWA-5	Total Recoverable	Water	6020	416586
400-160832-3	ARGWA-12	Total Recoverable	Water	6020	416586
400-160832-4	ARGWA-13	Total Recoverable	Water	6020	416586
400-160832-5	ARGWA-14	Total Recoverable	Water	6020	416586
400-160832-6	ARGWC-16	Total Recoverable	Water	6020	416586
400-160832-7	DUP-1	Total Recoverable	Water	6020	416586
400-160832-8	ARGWC-18	Total Recoverable	Water	6020	416586
400-160832-9	ARGWC-8	Total Recoverable	Water	6020	416586
400-160832-10	ARGWC-7	Total Recoverable	Water	6020	416586
400-160832-11	ARGWC-15	Total Recoverable	Water	6020	416586
400-160832-12	ARGWC-17	Total Recoverable	Water	6020	416586
400-160832-13	ARGWC-9	Total Recoverable	Water	6020	416586
400-160832-14	ARGWC-10	Total Recoverable	Water	6020	416586
400-160832-15	EB-1-10-17-18	Total Recoverable	Water	6020	416586
400-160832-16	FB-1-10-17-18	Total Recoverable	Water	6020	416586
MB 400-416586/1-A ^5	Method Blank	Total Recoverable	Water	6020	416586
LCS 400-416586/2-A	Lab Control Sample	Total Recoverable	Water	6020	416586
400-160832-1 MS	ARGWA-3	Total Recoverable	Water	6020	416586
400-160832-1 MSD	ARGWA-3	Total Recoverable	Water	6020	416586

Analysis Batch: 416892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-4 - DL	ARGWA-13	Total Recoverable	Water	6020	416586
400-160832-7 - DL	DUP-1	Total Recoverable	Water	6020	416586

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
 SDG: Ash Pond 3

Metals (Continued)

Analysis Batch: 416892 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-8 - DL	ARGWC-18	Total Recoverable	Water	6020	416586

Prep Batch: 417787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total/NA	Water	7470A	
400-160832-2	ARGWA-5	Total/NA	Water	7470A	
400-160832-3	ARGWA-12	Total/NA	Water	7470A	
400-160832-4	ARGWA-13	Total/NA	Water	7470A	
400-160832-5	ARGWA-14	Total/NA	Water	7470A	
400-160832-6	ARGWC-16	Total/NA	Water	7470A	
400-160832-7	DUP-1	Total/NA	Water	7470A	
400-160832-8	ARGWC-18	Total/NA	Water	7470A	
400-160832-9	ARGWC-8	Total/NA	Water	7470A	
400-160832-10	ARGWC-7	Total/NA	Water	7470A	
400-160832-11	ARGWC-15	Total/NA	Water	7470A	
400-160832-12	ARGWC-17	Total/NA	Water	7470A	
400-160832-13	ARGWC-9	Total/NA	Water	7470A	
400-160832-14	ARGWC-10	Total/NA	Water	7470A	
400-160832-15	EB-1-10-17-18	Total/NA	Water	7470A	
400-160832-16	FB-1-10-17-18	Total/NA	Water	7470A	
MB 400-417787/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-417787/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-160832-2 MS	ARGWA-5	Total/NA	Water	7470A	
400-160832-2 MSD	ARGWA-5	Total/NA	Water	7470A	

Analysis Batch: 418016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total/NA	Water	7470A	417787
400-160832-2	ARGWA-5	Total/NA	Water	7470A	417787
400-160832-3	ARGWA-12	Total/NA	Water	7470A	417787
400-160832-4	ARGWA-13	Total/NA	Water	7470A	417787
400-160832-5	ARGWA-14	Total/NA	Water	7470A	417787
400-160832-6	ARGWC-16	Total/NA	Water	7470A	417787
400-160832-7	DUP-1	Total/NA	Water	7470A	417787
400-160832-8	ARGWC-18	Total/NA	Water	7470A	417787
400-160832-9	ARGWC-8	Total/NA	Water	7470A	417787
400-160832-10	ARGWC-7	Total/NA	Water	7470A	417787
400-160832-11	ARGWC-15	Total/NA	Water	7470A	417787
400-160832-12	ARGWC-17	Total/NA	Water	7470A	417787
400-160832-13	ARGWC-9	Total/NA	Water	7470A	417787
400-160832-14	ARGWC-10	Total/NA	Water	7470A	417787
400-160832-15	EB-1-10-17-18	Total/NA	Water	7470A	417787
400-160832-16	FB-1-10-17-18	Total/NA	Water	7470A	417787
MB 400-417787/14-A	Method Blank	Total/NA	Water	7470A	417787
LCS 400-417787/15-A	Lab Control Sample	Total/NA	Water	7470A	417787
400-160832-2 MS	ARGWA-5	Total/NA	Water	7470A	417787
400-160832-2 MSD	ARGWA-5	Total/NA	Water	7470A	417787

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

General Chemistry

Analysis Batch: 416446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-7	DUP-1	Total/NA	Water	SM 2540C	
MB 400-416446/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-416446/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-160742-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2540C	
400-160691-H-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 416491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total/NA	Water	SM 2540C	
400-160832-2	ARGWA-5	Total/NA	Water	SM 2540C	
400-160832-3	ARGWA-12	Total/NA	Water	SM 2540C	
400-160832-4	ARGWA-13	Total/NA	Water	SM 2540C	
400-160832-5	ARGWA-14	Total/NA	Water	SM 2540C	
MB 400-416491/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-416491/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-160742-E-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-160790-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 416581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-6	ARGWC-16	Total/NA	Water	SM 2540C	
MB 400-416581/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-416581/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-160738-A-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 416766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-8	ARGWC-18	Total/NA	Water	SM 2540C	
400-160832-9	ARGWC-8	Total/NA	Water	SM 2540C	
400-160832-10	ARGWC-7	Total/NA	Water	SM 2540C	
400-160832-11	ARGWC-15	Total/NA	Water	SM 2540C	
400-160832-12	ARGWC-17	Total/NA	Water	SM 2540C	
400-160832-13	ARGWC-9	Total/NA	Water	SM 2540C	
400-160832-14	ARGWC-10	Total/NA	Water	SM 2540C	
400-160832-15	EB-1-10-17-18	Total/NA	Water	SM 2540C	
400-160832-16	FB-1-10-17-18	Total/NA	Water	SM 2540C	
MB 400-416766/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-416766/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-160832-12 DU	ARGWC-17	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-417404/22
Matrix: Water
Analysis Batch: 417404

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/29/18 13:27	1
Fluoride	<0.082		0.20	0.082	mg/L			10/29/18 13:27	1
Sulfate	<0.70		1.0	0.70	mg/L			10/29/18 13:27	1

Lab Sample ID: LCS 400-417404/23
Matrix: Water
Analysis Batch: 417404

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.90		mg/L		99	90 - 110
Fluoride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: LCSD 400-417404/24
Matrix: Water
Analysis Batch: 417404

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.93		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	1	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	3	15

Lab Sample ID: 400-160841-W-1 MS
Matrix: Water
Analysis Batch: 417404

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	29		10.0	38.6		mg/L		92	80 - 120
Fluoride	0.15	J	10.0	10.3		mg/L		101	80 - 120
Sulfate	24		10.0	35.2		mg/L		110	80 - 120

Lab Sample ID: 400-160841-W-1 MSD
Matrix: Water
Analysis Batch: 417404

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	29		10.0	38.6		mg/L		92	80 - 120	0	20
Fluoride	0.15	J	10.0	10.3		mg/L		101	80 - 120	0	20
Sulfate	24		10.0	35.3		mg/L		112	80 - 120	1	20

Lab Sample ID: MB 400-417570/4
Matrix: Water
Analysis Batch: 417570

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/30/18 03:55	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 03:55	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 03:55	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 400-417570/5
Matrix: Water
Analysis Batch: 417570

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.99		mg/L		100	90 - 110
Fluoride	10.0	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.8		mg/L		108	90 - 110

Lab Sample ID: LCSD 400-417570/6
Matrix: Water
Analysis Batch: 417570

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.97		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	0	15

Lab Sample ID: 400-160841-W-3 MS
Matrix: Water
Analysis Batch: 417570

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	24		10.0	33.1		mg/L		91	80 - 120
Fluoride	0.11	J	10.0	10.3		mg/L		102	80 - 120
Sulfate	88	E	10.0	97.6	E 4	mg/L		93	80 - 120

Lab Sample ID: 400-160841-W-3 MSD
Matrix: Water
Analysis Batch: 417570

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	24		10.0	33.3		mg/L		93	80 - 120	0	20
Fluoride	0.11	J	10.0	10.4		mg/L		103	80 - 120	1	20
Sulfate	88	E	10.0	97.9	E 4	mg/L		96	80 - 120	0	20

Lab Sample ID: MB 400-417671/37
Matrix: Water
Analysis Batch: 417671

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/30/18 16:51	1
Fluoride	<0.082		0.20	0.082	mg/L			10/30/18 16:51	1
Sulfate	<0.70		1.0	0.70	mg/L			10/30/18 16:51	1

Lab Sample ID: LCS 400-417671/38
Matrix: Water
Analysis Batch: 417671

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110
Fluoride	10.0	10.0		mg/L		100	90 - 110
Sulfate	10.0	10.8		mg/L		108	90 - 110

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-417671/39

Matrix: Water
Analysis Batch: 417671

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	11.0		mg/L		110	90 - 110	1	15

Lab Sample ID: 400-160832-6 MS

Matrix: Water
Analysis Batch: 417671

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.5		10.0	14.4		mg/L		99	80 - 120		
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120		
Sulfate	82	E	10.0	91.2	E 4	mg/L		92	80 - 120		

Lab Sample ID: 400-160832-6 MSD

Matrix: Water
Analysis Batch: 417671

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.5		10.0	14.7		mg/L		102	80 - 120	2	20
Fluoride	<0.082		10.0	10.7		mg/L		107	80 - 120	2	20
Sulfate	82	E	10.0	91.8	E 4	mg/L		98	80 - 120	1	20

Lab Sample ID: MB 400-417783/19

Matrix: Water
Analysis Batch: 417783

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/31/18 13:25	1
Fluoride	<0.082		0.20	0.082	mg/L			10/31/18 13:25	1
Sulfate	<0.70		1.0	0.70	mg/L			10/31/18 13:25	1

Lab Sample ID: LCS 400-417783/20

Matrix: Water
Analysis Batch: 417783

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110		
Fluoride	10.0	10.6		mg/L		106	90 - 110		
Sulfate	10.0	10.7		mg/L		107	90 - 110		

Lab Sample ID: LCSD 400-417783/21

Matrix: Water
Analysis Batch: 417783

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	90 - 110	1	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	2	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	0	15

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 400-161253-I-2 MS
Matrix: Water
Analysis Batch: 417783

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.4		10.0	14.1		mg/L		97	80 - 120
Fluoride	<0.082		10.0	9.89		mg/L		99	80 - 120
Sulfate	4.6		10.0	14.7		mg/L		101	80 - 120

Lab Sample ID: 400-161253-I-2 MSD
Matrix: Water
Analysis Batch: 417783

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.4		10.0	14.2		mg/L		98	80 - 120	0	20
Fluoride	<0.082		10.0	9.84		mg/L		98	80 - 120	0	20
Sulfate	4.6		10.0	14.8		mg/L		103	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-416586/1-A ^5
Matrix: Water
Analysis Batch: 416741

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 416586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/23/18 12:12	10/23/18 18:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/23/18 12:12	10/23/18 18:39	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/23/18 12:12	10/23/18 18:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 18:39	5
Boron	<0.021		0.050	0.021	mg/L		10/23/18 12:12	10/23/18 18:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/23/18 12:12	10/23/18 18:39	5
Calcium	<0.13		0.25	0.13	mg/L		10/23/18 12:12	10/23/18 18:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/23/18 12:12	10/23/18 18:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/23/18 12:12	10/23/18 18:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/23/18 12:12	10/23/18 18:39	5
Lithium	<0.0011		0.0050	0.0011	mg/L		10/23/18 12:12	10/23/18 18:39	5
Molybdenum	<0.0020		0.015	0.0020	mg/L		10/23/18 12:12	10/23/18 18:39	5
Selenium	<0.00071		0.0013	0.00071	mg/L		10/23/18 12:12	10/23/18 18:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/23/18 12:12	10/23/18 18:39	5

Lab Sample ID: LCS 400-416586/2-A
Matrix: Water
Analysis Batch: 416741

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 416586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0492		mg/L		98	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0484		mg/L		97	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Boron	0.100	0.0989		mg/L		99	80 - 120
Cadmium	0.0500	0.0541		mg/L		108	80 - 120
Calcium	5.00	4.92		mg/L		98	80 - 120
Chromium	0.0500	0.0501		mg/L		100	80 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

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

Lab Sample ID: LCS 400-416586/2-A
Matrix: Water
Analysis Batch: 416741

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 416586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Lead	0.0500	0.0527		mg/L		105	80 - 120
Lithium	0.0500	0.0530		mg/L		106	80 - 120
Molybdenum	0.0500	0.0490		mg/L		98	80 - 120
Selenium	0.0500	0.0486		mg/L		97	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-160832-1 MS
Matrix: Water
Analysis Batch: 416741

Client Sample ID: ARGWA-3
Prep Type: Total Recoverable
Prep Batch: 416586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0493		mg/L		99	75 - 125
Arsenic	<0.00046		0.0500	0.0505		mg/L		101	75 - 125
Barium	0.018		0.0500	0.0692		mg/L		103	75 - 125
Beryllium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125
Boron	<0.021		0.100	0.0984		mg/L		98	75 - 125
Cadmium	<0.00034		0.0500	0.0556		mg/L		111	75 - 125
Calcium	5.8		5.00	10.7		mg/L		98	75 - 125
Chromium	0.0035		0.0500	0.0581		mg/L		109	75 - 125
Cobalt	<0.00040		0.0500	0.0517		mg/L		103	75 - 125
Lead	<0.00035		0.0500	0.0491		mg/L		98	75 - 125
Lithium	0.0017	J	0.0500	0.0552		mg/L		107	75 - 125
Molybdenum	<0.0020		0.0500	0.0470		mg/L		94	75 - 125
Selenium	<0.00071		0.0500	0.0495		mg/L		99	75 - 125
Thallium	<0.00085		0.0100	0.0105		mg/L		105	75 - 125

Lab Sample ID: 400-160832-1 MSD
Matrix: Water
Analysis Batch: 416741

Client Sample ID: ARGWA-3
Prep Type: Total Recoverable
Prep Batch: 416586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0500		mg/L		100	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0505		mg/L		101	75 - 125	0	20
Barium	0.018		0.0500	0.0661		mg/L		97	75 - 125	5	20
Beryllium	<0.00034		0.0500	0.0507		mg/L		101	75 - 125	1	20
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	7	20
Cadmium	<0.00034		0.0500	0.0549		mg/L		110	75 - 125	1	20
Calcium	5.8		5.00	10.8		mg/L		100	75 - 125	1	20
Chromium	0.0035		0.0500	0.0594		mg/L		112	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0516		mg/L		103	75 - 125	0	20
Lead	<0.00035		0.0500	0.0506		mg/L		101	75 - 125	3	20
Lithium	0.0017	J	0.0500	0.0548		mg/L		106	75 - 125	1	20
Molybdenum	<0.0020		0.0500	0.0478		mg/L		96	75 - 125	2	20
Selenium	<0.00071		0.0500	0.0487		mg/L		97	75 - 125	2	20
Thallium	<0.00085		0.0100	0.0106		mg/L		106	75 - 125	1	20

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-417787/14-A
Matrix: Water
Analysis Batch: 418016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/31/18 10:32	11/01/18 14:51	1

Lab Sample ID: LCS 400-417787/15-A
Matrix: Water
Analysis Batch: 418016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417787

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

Lab Sample ID: 400-160832-2 MS
Matrix: Water
Analysis Batch: 418016

Client Sample ID: ARGWA-5
Prep Type: Total/NA
Prep Batch: 417787

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00208		mg/L		103	80 - 120

Lab Sample ID: 400-160832-2 MSD
Matrix: Water
Analysis Batch: 418016

Client Sample ID: ARGWA-5
Prep Type: Total/NA
Prep Batch: 417787

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00208		mg/L		103	80 - 120	0	20

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

Lab Sample ID: MB 400-416446/1
Matrix: Water
Analysis Batch: 416446

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	<3.4		5.0	3.4	mg/L			10/22/18 14:36	1

Lab Sample ID: LCS 400-416446/2
Matrix: Water
Analysis Batch: 416446

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	293	328		mg/L		112	78 - 122

Lab Sample ID: 400-160691-H-5 DU
Matrix: Water
Analysis Batch: 416446

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	240		234		mg/L		0.9	5

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

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

Lab Sample ID: MB 400-416491/1
Matrix: Water
Analysis Batch: 416491

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	<3.4		5.0	3.4	mg/L			10/22/18 17:15	1

Lab Sample ID: LCS 400-416491/2
Matrix: Water
Analysis Batch: 416491

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	293	274		mg/L		94	78 - 122

Lab Sample ID: 400-160742-E-1 DU
Matrix: Water
Analysis Batch: 416491

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	330		330		mg/L		0.6	5

Lab Sample ID: 400-160790-A-3 DU
Matrix: Water
Analysis Batch: 416491

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	6.0		6.00		mg/L		0	5

Lab Sample ID: MB 400-416581/1
Matrix: Water
Analysis Batch: 416581

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	<3.4		5.0	3.4	mg/L			10/23/18 11:59	1

Lab Sample ID: LCS 400-416581/2
Matrix: Water
Analysis Batch: 416581

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	293	276		mg/L		94	78 - 122

Lab Sample ID: 400-160738-A-7 DU
Matrix: Water
Analysis Batch: 416581

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	280		284		mg/L		0	5

Lab Sample ID: MB 400-416766/1
Matrix: Water
Analysis Batch: 416766

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	<3.4		5.0	3.4	mg/L			10/24/18 12:23	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
 SDG: Ash Pond 3

Lab Sample ID: LCS 400-416766/2
Matrix: Water
Analysis Batch: 416766

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	293	280		mg/L		96	78 - 122

Lab Sample ID: 400-160832-12 DU
Matrix: Water
Analysis Batch: 416766

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	140		148		mg/L		4	5

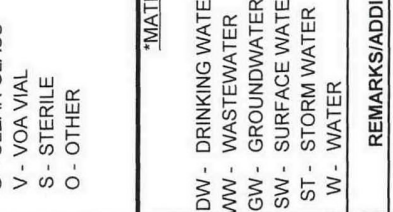
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CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham		CC: Maria Padilla Heath McCorkle	
REQUESTED COMPLETION DATE:		PO #:		laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3	
PROJECT #:		Phase II CCR & State D&O					
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G O R A B	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED	CONTAINER TYPE: PRESERVATION:
10-16-18	1616	GW	✓	✓	ARGWA-3	Metals App. III & IV (EPA 6020/7470) Metals (see additional list below) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)	P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER
10-16-18	1800	GW	✓	✓	ARGWA-5		1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen
10-16-18	1615	GW	✓	✓	ARGWA-12		*MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT
10-16-18	1440	GW	✓	✓	ARGWA-13		REMARKS/ADDITIONAL INFORMATION
10-16-18	1245	GW	✓	✓	ARGWA-14		
10-16-18	1728	GW	✓	✓	ARGWC-16		
10-16-18	---	GW	✓	✓	PUP-1		
SAMPLED BY AND TITLE: C. Walker, R. Walker		DATE/TIME:	10-17-18	1800	RELINQUISHED BY:	DATE/TIME:	10-18-18 1130
RECEIVED BY:		DATE/TIME:	11:30	RECEIVED BY:	DATE/TIME:	10/18/18	16:10
RECEIVED BY LAB:		DATE/TIME:	10/19/18	SAMPLE SHIPPED VIA:	USPS	COURIER	OTHER FS
pH checked:		Ice:	Yes No NA	Custody Seal:	Intact Broken Not Present	Client ID:	Cooler ID:



Plant Arkwright - Ash Pond 3 COC.xlsx

3.3°C, C.8°C, 1R7





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CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O			
Collection DATE	Collection TIME	MATRIX CODE*	CGRAB	SAMPLE IDENTIFICATION	CONTAINER TYPE PRESERVATION	ANALYSIS REQUESTED	CONTAINER TYPE PRESERVATION
10-17-18	0945	GW	✓	ARGWC-18	4	Metals App. III & IV (EPA 6020/7470)	P - PLASTIC 1 - HCl, ≤6°C
10-17-18	1115	GW	✓	ARGWC-8	3	Metals (see additional list below) (EPA 6020)	A - AMBER GLASS 2 - H ₂ SO ₄ , ≤6°C
10-17-18	1428	GW	✓	ARGWC-7	3	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	G - CLEAR GLASS 3 - HNO ₃
10-17-18	0941	GW	✓	ARGWC-15	3	Metals (see additional list below) (EPA 6020)	V - VOA VIAL 4 - NaOH, ≤6°C
10-17-18	1249	GW	✓	ARGWC-17	3	Metals (see additional list below) (EPA 6020)	S - STERILE 5 - NaOH/ZnAc, ≤6°C
10-17-18	1225	GW	✓	ARGWC-9	3	Metals (see additional list below) (EPA 6020)	6 - Na ₂ S ₂ O ₃ , ≤6°C
10-17-18	1325	GW	✓	ARGWC-10	3	Metals (see additional list below) (EPA 6020)	7 - ≤6°C not frozen
10-17-18	1200	W	✓	EB-1-10-17-18	3	Metals (see additional list below) (EPA 6020)	
10-17-18	1115	W	✓	FB-1-10-17-18	3	Metals (see additional list below) (EPA 6020)	
SAMPLED BY AND TITLE: McCorkle R. Walker / 1800					RELINQUISHED BY:	DATE/TIME:	LAB #:
RECEIVED BY: [Signature] 10/18/18					RELINQUISHED BY:	DATE/TIME:	FOR LAB USE ONLY
RECEIVED BY LAB: [Signature] 10/18/18 0904					RELINQUISHED BY:	DATE/TIME:	Entered into LIMS: Tracking #:
pH checked: Yes No NA Ice: Yes No NA		Temperature: Min: Max:		CUSTODY SEAL: Intact Broken Not Present		CLIENT: COURIER: OTHER: FS:	

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se

Plant Arkwright - Ash Pond 3 COC.xlsx

3.3°C, 0.8°C 1R7



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-160832-1

SDG Number: Ash Pond 3

Login Number: 160832

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

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.	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	3.3°C, 0.8°C IR-7
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-1
SDG: Ash Pond 3

Laboratory: 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	01-12-19
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	10-31-18 *
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
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	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-16	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	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-160832-2

TestAmerica Sample Delivery Group: Ash Pond 3

Client Project/Site: CCR Plant Arkwright

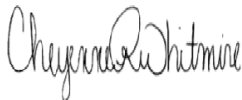
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

11/27/2018 12:02:24 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Method Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

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

Sample Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-160832-1	ARGWA-3	Water	10/16/18 16:16	10/19/18 09:04
400-160832-2	ARGWA-5	Water	10/16/18 18:00	10/19/18 09:04
400-160832-3	ARGWA-12	Water	10/16/18 16:15	10/19/18 09:04
400-160832-4	ARGWA-13	Water	10/16/18 14:40	10/19/18 09:04
400-160832-5	ARGWA-14	Water	10/16/18 12:45	10/19/18 09:04
400-160832-6	ARGWC-16	Water	10/16/18 17:28	10/19/18 09:04
400-160832-7	DUP-1	Water	10/16/18 00:00	10/19/18 09:04
400-160832-8	ARGWC-18	Water	10/17/18 09:45	10/19/18 09:04
400-160832-9	ARGWC-8	Water	10/17/18 11:15	10/19/18 09:04
400-160832-10	ARGWC-7	Water	10/17/18 14:28	10/19/18 09:04
400-160832-11	ARGWC-15	Water	10/17/18 09:41	10/19/18 09:04
400-160832-12	ARGWC-17	Water	10/17/18 12:49	10/19/18 09:04
400-160832-13	ARGWC-9	Water	10/17/18 12:25	10/19/18 09:04
400-160832-14	ARGWC-10	Water	10/17/18 13:25	10/19/18 09:04
400-160832-15	EB-1-10-17-18	Water	10/17/18 12:00	10/19/18 09:04
400-160832-16	FB-1-10-17-18	Water	10/17/18 11:15	10/19/18 09:04

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWA-3

Lab Sample ID: 400-160832-1

Date Collected: 10/16/18 16:16

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.244		0.101	0.103	1.00	0.0960	pCi/L	10/25/18 10:04	11/20/18 07:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					10/25/18 10:04	11/20/18 07:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.554		0.253	0.258	1.00	0.360	pCi/L	10/25/18 10:33	11/13/18 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					10/25/18 10:33	11/13/18 13:41	1
Y Carrier	84.5		40 - 110					10/25/18 10:33	11/13/18 13:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.798		0.272	0.278	5.00	0.360	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWA-5

Lab Sample ID: 400-160832-2

Date Collected: 10/16/18 18:00

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.221		0.0996	0.102	1.00	0.109	pCi/L	10/25/18 10:04	11/20/18 07:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					10/25/18 10:04	11/20/18 07:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.768		0.274	0.283	1.00	0.366	pCi/L	10/25/18 10:33	11/13/18 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					10/25/18 10:33	11/13/18 13:41	1
Y Carrier	81.9		40 - 110					10/25/18 10:33	11/13/18 13:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.989		0.292	0.301	5.00	0.366	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWA-12

Lab Sample ID: 400-160832-3

Date Collected: 10/16/18 16:15

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.292		0.112	0.115	1.00	0.104	pCi/L	10/25/18 10:04	11/20/18 07:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					10/25/18 10:04	11/20/18 07:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.237	U	0.310	0.311	1.00	0.516	pCi/L	10/25/18 10:33	11/13/18 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					10/25/18 10:33	11/13/18 13:41	1
Y Carrier	78.1		40 - 110					10/25/18 10:33	11/13/18 13:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.530		0.330	0.332	5.00	0.516	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
 SDG: Ash Pond 3

Client Sample ID: ARGWA-13

Lab Sample ID: 400-160832-4

Date Collected: 10/16/18 14:40

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.209		0.0871	0.0891	1.00	0.0795	pCi/L	10/25/18 10:04	11/20/18 07:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					10/25/18 10:04	11/20/18 07:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0953	U	0.209	0.210	1.00	0.360	pCi/L	10/25/18 10:33	11/13/18 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					10/25/18 10:33	11/13/18 13:41	1
Y Carrier	78.1		40 - 110					10/25/18 10:33	11/13/18 13:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.305	U	0.226	0.228	5.00	0.360	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-160832-5

Date Collected: 10/16/18 12:45

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.395		0.128	0.133	1.00	0.123	pCi/L	10/25/18 10:04	11/20/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					10/25/18 10:04	11/20/18 07:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.306	U	0.260	0.261	1.00	0.414	pCi/L	10/25/18 10:33	11/13/18 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					10/25/18 10:33	11/13/18 13:41	1
Y Carrier	78.9		40 - 110					10/25/18 10:33	11/13/18 13:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.701		0.290	0.293	5.00	0.414	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-16

Lab Sample ID: 400-160832-6

Date Collected: 10/16/18 17:28

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213		0.0948	0.0968	1.00	0.104	pCi/L	10/25/18 10:04	11/20/18 07:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/25/18 10:04	11/20/18 07:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.153	U	0.221	0.221	1.00	0.424	pCi/L	10/25/18 10:33	11/13/18 13:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/25/18 10:33	11/13/18 13:41	1
Y Carrier	80.4		40 - 110					10/25/18 10:33	11/13/18 13:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0598	U	0.240	0.241	5.00	0.424	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: DUP-1

Date Collected: 10/16/18 00:00

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-7

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	0.280		0.109	0.112	1.00	0.110	pCi/L	10/25/18 10:04	11/20/18 07:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					10/25/18 10:04	11/20/18 07:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.447		0.287	0.290	1.00	0.445	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	81.1		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.727		0.307	0.311	5.00	0.445	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-18

Lab Sample ID: 400-160832-8

Date Collected: 10/17/18 09:45

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.207		0.0977	0.0994	1.00	0.113	pCi/L	10/25/18 10:04	11/20/18 07:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/25/18 10:04	11/20/18 07:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.271	0.274	1.00	0.418	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	78.9		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.620		0.288	0.291	5.00	0.418	pCi/L		11/26/18 15:23	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-160832-9

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.237		0.0996	0.102	1.00	0.105	pCi/L	10/25/18 10:04	11/20/18 07:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/25/18 10:04	11/20/18 07:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.148	U	0.256	0.256	1.00	0.433	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	81.5		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.385	U	0.275	0.276	5.00	0.433	pCi/L		11/26/18 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-7

Lab Sample ID: 400-160832-10

Date Collected: 10/17/18 14:28

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220		0.0931	0.0952	1.00	0.0935	pCi/L	10/25/18 10:04	11/20/18 07:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					10/25/18 10:04	11/20/18 07:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.275	U	0.311	0.312	1.00	0.511	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	79.3		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.495	U	0.325	0.326	5.00	0.511	pCi/L		11/26/18 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-15

Lab Sample ID: 400-160832-11

Date Collected: 10/17/18 09:41

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.229		0.106	0.108	1.00	0.122	pCi/L	10/25/18 10:04	11/20/18 07:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		40 - 110					10/25/18 10:04	11/20/18 07:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.231	U	0.338	0.339	1.00	0.566	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	77.8		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.460	U	0.354	0.356	5.00	0.566	pCi/L		11/26/18 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-17

Lab Sample ID: 400-160832-12

Date Collected: 10/17/18 12:49

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.245		0.101	0.103	1.00	0.102	pCi/L	10/25/18 10:04	11/20/18 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/25/18 10:04	11/20/18 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	0.536		0.342	0.346	1.00	0.532	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	76.6		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.781		0.357	0.361	5.00	0.532	pCi/L		11/26/18 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-160832-13

Date Collected: 10/17/18 12:25

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.235		0.110	0.112	1.00	0.130	pCi/L	10/25/18 10:04	11/20/18 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					10/25/18 10:04	11/20/18 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	0.0925	U	0.278	0.279	1.00	0.482	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	77.0		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.327	U	0.299	0.301	5.00	0.482	pCi/L		11/26/18 15:24	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-10

Lab Sample ID: 400-160832-14

Date Collected: 10/17/18 13:25

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.162		0.0893	0.0905	1.00	0.109	pCi/L	10/25/18 10:04	11/20/18 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					10/25/18 10:04	11/20/18 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	0.217	U	0.309	0.310	1.00	0.517	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	77.0		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.380	U	0.322	0.323	5.00	0.517	pCi/L		11/26/18 15:24	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
 SDG: Ash Pond 3

Client Sample ID: EB-1-10-17-18

Lab Sample ID: 400-160832-15

Date Collected: 10/17/18 12:00

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130		0.0843	0.0851	1.00	0.111	pCi/L	10/25/18 10:04	11/20/18 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					10/25/18 10:04	11/20/18 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	0.283	U	0.306	0.307	1.00	0.501	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	75.5		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.413	U	0.317	0.319	5.00	0.501	pCi/L		11/26/18 15:38	1

Client Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: FB-1-10-17-18

Lab Sample ID: 400-160832-16

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175		0.0929	0.0942	1.00	0.114	pCi/L	10/25/18 10:04	11/20/18 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					10/25/18 10:04	11/20/18 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	0.156	U	0.225	0.226	1.00	0.378	pCi/L	10/25/18 10:33	11/13/18 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					10/25/18 10:33	11/13/18 13:42	1
Y Carrier	83.7		40 - 110					10/25/18 10:33	11/13/18 13:42	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	0.331	U	0.243	0.245	5.00	0.378	pCi/L		11/26/18 15:38	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

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)

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWA-3

Date Collected: 10/16/18 16:16

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401873	11/20/18 07:46	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:41	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Client Sample ID: ARGWA-5

Date Collected: 10/16/18 18:00

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401873	11/20/18 07:46	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:41	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Client Sample ID: ARGWA-12

Date Collected: 10/16/18 16:15

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401873	11/20/18 07:46	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:41	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Client Sample ID: ARGWA-13

Date Collected: 10/16/18 14:40

Date Received: 10/19/18 09:04

Lab Sample ID: 400-160832-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401873	11/20/18 07:46	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:41	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWA-14

Lab Sample ID: 400-160832-5

Date Collected: 10/16/18 12:45

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401873	11/20/18 07:47	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:41	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Client Sample ID: ARGWC-16

Lab Sample ID: 400-160832-6

Date Collected: 10/16/18 17:28

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:41	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Client Sample ID: DUP-1

Lab Sample ID: 400-160832-7

Date Collected: 10/16/18 00:00

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Client Sample ID: ARGWC-18

Lab Sample ID: 400-160832-8

Date Collected: 10/17/18 09:45

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:23	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-8

Lab Sample ID: 400-160832-9

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

Client Sample ID: ARGWC-7

Lab Sample ID: 400-160832-10

Date Collected: 10/17/18 14:28

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

Client Sample ID: ARGWC-15

Lab Sample ID: 400-160832-11

Date Collected: 10/17/18 09:41

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

Client Sample ID: ARGWC-17

Lab Sample ID: 400-160832-12

Date Collected: 10/17/18 12:49

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

Lab Chronicle

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Client Sample ID: ARGWC-9

Lab Sample ID: 400-160832-13

Date Collected: 10/17/18 12:25

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

Client Sample ID: ARGWC-10

Lab Sample ID: 400-160832-14

Date Collected: 10/17/18 13:25

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

Client Sample ID: EB-1-10-17-18

Lab Sample ID: 400-160832-15

Date Collected: 10/17/18 12:00

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:38	RTM	TAL SL

Client Sample ID: FB-1-10-17-18

Lab Sample ID: 400-160832-16

Date Collected: 10/17/18 11:15

Matrix: Water

Date Received: 10/19/18 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397276	10/25/18 10:04	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 07:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397294	10/25/18 10:33	JLC	TAL SL
Total/NA	Analysis	9320		1	400703	11/13/18 13:42	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:38	RTM	TAL SL

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Rad

Prep Batch: 397276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total/NA	Water	PrecSep-21	
400-160832-2	ARGWA-5	Total/NA	Water	PrecSep-21	
400-160832-3	ARGWA-12	Total/NA	Water	PrecSep-21	
400-160832-4	ARGWA-13	Total/NA	Water	PrecSep-21	
400-160832-5	ARGWA-14	Total/NA	Water	PrecSep-21	
400-160832-6	ARGWC-16	Total/NA	Water	PrecSep-21	
400-160832-7	DUP-1	Total/NA	Water	PrecSep-21	
400-160832-8	ARGWC-18	Total/NA	Water	PrecSep-21	
400-160832-9	ARGWC-8	Total/NA	Water	PrecSep-21	
400-160832-10	ARGWC-7	Total/NA	Water	PrecSep-21	
400-160832-11	ARGWC-15	Total/NA	Water	PrecSep-21	
400-160832-12	ARGWC-17	Total/NA	Water	PrecSep-21	
400-160832-13	ARGWC-9	Total/NA	Water	PrecSep-21	
400-160832-14	ARGWC-10	Total/NA	Water	PrecSep-21	
400-160832-15	EB-1-10-17-18	Total/NA	Water	PrecSep-21	
400-160832-16	FB-1-10-17-18	Total/NA	Water	PrecSep-21	
MB 160-397276/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-397276/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-160832-8 DU	ARGWC-18	Total/NA	Water	PrecSep-21	

Prep Batch: 397294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160832-1	ARGWA-3	Total/NA	Water	PrecSep_0	
400-160832-2	ARGWA-5	Total/NA	Water	PrecSep_0	
400-160832-3	ARGWA-12	Total/NA	Water	PrecSep_0	
400-160832-4	ARGWA-13	Total/NA	Water	PrecSep_0	
400-160832-5	ARGWA-14	Total/NA	Water	PrecSep_0	
400-160832-6	ARGWC-16	Total/NA	Water	PrecSep_0	
400-160832-7	DUP-1	Total/NA	Water	PrecSep_0	
400-160832-8	ARGWC-18	Total/NA	Water	PrecSep_0	
400-160832-9	ARGWC-8	Total/NA	Water	PrecSep_0	
400-160832-10	ARGWC-7	Total/NA	Water	PrecSep_0	
400-160832-11	ARGWC-15	Total/NA	Water	PrecSep_0	
400-160832-12	ARGWC-17	Total/NA	Water	PrecSep_0	
400-160832-13	ARGWC-9	Total/NA	Water	PrecSep_0	
400-160832-14	ARGWC-10	Total/NA	Water	PrecSep_0	
400-160832-15	EB-1-10-17-18	Total/NA	Water	PrecSep_0	
400-160832-16	FB-1-10-17-18	Total/NA	Water	PrecSep_0	
MB 160-397294/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-397294/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-160832-8 DU	ARGWC-18	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-397276/23-A
Matrix: Water
Analysis Batch: 401802

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397276

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1769		0.0810	0.0826	1.00	0.0796	pCi/L	10/25/18 10:04	11/20/18 07:55	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/25/18 10:04	11/20/18 07:55	1

Lab Sample ID: LCS 160-397276/1-A
Matrix: Water
Analysis Batch: 401873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397276

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	12.62		1.31	1.00	0.127	pCi/L	111	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	99.7		40 - 110						

Lab Sample ID: 400-160832-8 DU
Matrix: Water
Analysis Batch: 401803

Client Sample ID: ARGWC-18
Prep Type: Total/NA
Prep Batch: 397276

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.207		0.2120		0.0952	1.00	0.0985	pCi/L	0.03	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.0		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-397294/23-A
Matrix: Water
Analysis Batch: 400703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397294

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1355	U	0.230	0.230	1.00	0.389	pCi/L	10/25/18 10:33	11/13/18 13:43	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/25/18 10:33	11/13/18 13:43	1
Y Carrier	83.7		40 - 110					10/25/18 10:33	11/13/18 13:43	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
 SDG: Ash Pond 3

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

Lab Sample ID: LCS 160-397294/1-A
Matrix: Water
Analysis Batch: 400703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397294

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.22	9.166		1.08	1.00	0.399	pCi/L	99	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	77.4		40 - 110

Lab Sample ID: 400-160832-8 DU
Matrix: Water
Analysis Batch: 400703

Client Sample ID: ARGWC-18
Prep Type: Total/NA
Prep Batch: 397294

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.413	U	0.0000	U	0.231	1.00	0.414	pCi/L	0.82	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.0		40 - 110
Y Carrier	81.5		40 - 110

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

Lab Sample ID: 400-160832-8 DU
Matrix: Water
Analysis Batch: 402686

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.620		0.2120	U	0.250	5.00	0.414	pCi/L	0.75	



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
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CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham		CC: Maria Padilla Heath McCorkle					
REQUESTED COMPLETION DATE:		PO #:		laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3					
PROJECT #:		Phase II CCR & State D&O									
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G O R A B	SAMPLE IDENTIFICATION	CONTAINER TYPE: PRESERVATION: # of	ANALYSIS REQUESTED				
10-16-18	1616	GW	✓	✓	ARGWA-3	3	Metals App. III & IV (EPA 6020/7470) Metals (see additional list below) (EPA 6020) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)				
10-16-18	1800	GW	✓	✓	ARGWA-5	3					
10-16-18	1615	GW	✓	✓	ARGWA-12	3					
10-16-18	1440	GW	✓	✓	ARGWA-13	3					
10-16-18	1245	GW	✓	✓	ARGWA-14	3					
10-16-18	1728	GW	✓	✓	ARGWC-16	3					
10-16-18	---	GW	✓	✓	PUP-1	3					
SAMPLED BY AND TITLE: C. Walker, R. Walker		DATE/TIME:	10-17-18	1800	RELINQUISHED BY:	C. Walker	DATE/TIME:	10-18-18	1130		
RECEIVED BY:		DATE/TIME:	10-30		REINQUISHED BY:		DATE/TIME:				
RECEIVED BY LAB:		DATE/TIME:	10/19/18	0804	SAMPLE SHIPPED VIA:		USPS	COURIER	OTHER	FS	
pH checked:		Ice:	No	NA	Yes	No	NA	Custody Seal:	Intact	Broken	Not Present
		Temperature:	Min:		Max:			# of Coolers			
								CLIENT	OTHER	FS	



Plant Arkwright - Ash Pond 3 COC.xlsx

3.3°C, C.8°C, 1R7





Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Arkwright Pond 3 PROJECT #: Phase II CCR & State D&O			
Collection DATE	Collection TIME	MATRIX CODE*	COGRA B	SAMPLE IDENTIFICATION	CONTAINER TYPE PRESERVATION	ANALYSIS REQUESTED	CONTAINER TYPE PRESERVATION
10-17-18	0945	GW	✓	ARGWC-18	4	Metals App. III & IV (EPA 6020/7470)	P - PLASTIC 1 - HCl, ≤6°C
10-17-18	1115	GW	✓	ARGWC-8	3	Metals (see additional list below) (EPA 6020)	A - AMBER GLASS 2 - H ₂ SO ₄ , ≤6°C
10-17-18	1428	GW	✓	ARGWC-7	3	CI, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	G - CLEAR GLASS 3 - HNO ₃
10-17-18	0941	GW	✓	ARGWC-15	3	Metals (see additional list below) (EPA 6020)	V - VOA VIAL 4 - NaOH, ≤6°C
10-17-18	1249	GW	✓	ARGWC-17	3	Metals (see additional list below) (EPA 6020)	S - STERILE 5 - NaOH/ZnAc, ≤6°C
10-17-18	1225	GW	✓	ARGWC-9	3	Metals (see additional list below) (EPA 6020)	6 - Na ₂ S ₂ O ₃ , ≤6°C
10-17-18	1325	GW	✓	ARGWC-10	3	Metals (see additional list below) (EPA 6020)	7 - ≤6°C not frozen
10-17-18	1200	W	✓	EB-1-10-17-18	3	Metals (see additional list below) (EPA 6020)	
10-17-18	1115	W	✓	FB-1-10-17-18	3	Metals (see additional list below) (EPA 6020)	
SAMPLED BY AND TITLE: McCorkle R. Walker / 1800					RELINQUISHED BY:	DATE/TIME:	LAB #:
RECEIVED BY: [Signature] 10/18/18					RELINQUISHED BY:	DATE/TIME:	FOR LAB USE ONLY
RECEIVED BY LAB: [Signature] 10/18/18 0904					RELINQUISHED BY:	DATE/TIME:	Entered into LIMS: Tracking #:
pH checked: Yes No NA Ice: Yes No NA		Temperature: Min: Max:		CUSTODY SEAL: Intact Broken Not Present		CLIENT: COURIER: OTHER: FS: # of Coolers: Cooler ID:	
REMARKS/ADDITIONAL INFORMATION extra Rad collected here							

Plant Arkwright - Ash Pond 3 COC.xlsx

Plant Arkwright State constituents: As, Ag, Ba, Cd, Pb, Se

3.3°C, 0.8°C 1R7



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-160832-2

SDG Number: Ash Pond 3

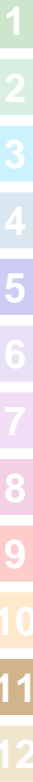
Login Number: 160832

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

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.	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	3.3°C, 0.8°C IR-7
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").	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: 400-160832-2

SDG Number: Ash Pond 3

Login Number: 160832

List Number: 2

Creator: McKinney, Gerrod E

List Source: TestAmerica St. Louis

List Creation: 10/24/18 09:58 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	22.0
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	

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

Laboratory: 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	01-12-19
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	10-31-18 *
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA180023	12-31-18
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	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
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	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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 ELAP		L2305	04-06-19
Arizona	State Program	9	AZ0813	12-08-18 *
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-19
Illinois	NELAP	5	200023	11-30-18 *
Iowa	State Program	7	373	12-01-18 *
Kansas	NELAP	7	E-10236	10-31-18 *
Kentucky (DW)	State Program	4	90125	12-31-18
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA180017	12-31-18 *
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-18 *
Missouri	State Program	7	780	06-30-19

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

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR Plant Arkwright

TestAmerica Job ID: 400-160832-2
SDG: Ash Pond 3

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
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
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-12	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

Product Name: Low-Flow System

Date: 2018-10-16 16:16:58

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369550
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 42 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 36.23 ft

Pumping Information:

Final Pumping Rate 225 mL/min
Total System Volume 0.7954147 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 12 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%	+/- 0		+/- 0.2	+/- 0
Last 5	15:56:25	2100.98	21.96	6.02	89.39	2.17	36.50	5.68	139.13
Last 5	16:01:25	2400.98	22.00	5.99	89.27	2.05	36.50	5.67	142.02
Last 5	16:06:25	2700.98	22.04	6.00	89.17	1.94	36.50	5.73	138.66
Last 5	16:11:25	3000.97	22.25	6.02	89.06	2.16	36.50	5.73	139.20
Last 5	16:16:25	3300.97	22.27	6.03	88.91	2.38	36.50	5.70	138.56
Variance 0			0.03	0.01	-0.10			0.06	-3.36
Variance 1			0.21	0.01	-0.11			0.01	0.54
Variance 2			0.02	0.01	-0.14			-0.03	-0.64

Notes

Collected at 16:16. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-16 17:57:45

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 33 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 23.88 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.8035402 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 17 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%	+/- 0		+/- 10%	+/- 0
Last 5	17:35:31	2100.00	19.28	5.87	83.20	5.77	24.00	5.45	119.68
Last 5	17:40:31	2400.00	19.28	5.86	83.24	5.13	24.00	5.44	118.30
Last 5	17:45:31	2699.99	19.28	5.86	83.26	4.50	24.00	5.41	117.50
Last 5	17:50:31	2999.99	19.29	5.85	83.93	4.02	24.00	5.46	117.26
Last 5	17:55:31	3299.99	19.24	5.86	83.03	3.15	24.00	5.40	117.50
Variance 0			0.01	-0.00	0.02			-0.02	-0.80
Variance 1			0.01	-0.01	0.67			0.05	-0.24
Variance 2			-0.05	0.01	-0.90			-0.06	0.24

Notes

Sampled at 18:00. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-16 16:16:01

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 32 ft

Pump placement from TOC 27 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.35 ft
Screen Length 10 ft
Depth to Water 16.98 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.7938874 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 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%	+/- 0		+/- 10%	+/- 0
Last 5	15:51:09	600.02	20.22	6.00	179.58	5.90	17.60	1.91	118.44
Last 5	15:56:09	900.02	20.16	5.96	178.02	4.87	17.70	1.82	121.10
Last 5	16:01:09	1200.01	20.18	5.94	177.77	3.63	17.80	1.79	121.05
Last 5	16:06:09	1500.00	20.17	5.94	177.64	2.87	17.80	1.77	121.08
Last 5	16:11:09	1800.03	20.13	5.94	177.67	2.59	17.80	1.78	121.69
Variance 0			0.02	-0.02	-0.25			-0.04	-0.05
Variance 1			-0.01	0.00	-0.13			-0.02	0.03
Variance 2			-0.04	-0.01	0.03			0.01	0.61

Notes

Sampled at 16:15. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-16 14:41:45

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 24.75 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9000674 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:18:44	1200.01	19.71	5.77	1247.95	1.87	25.10	0.68	110.63
Last 5	14:23:44	1500.00	19.37	5.76	1178.98	2.67	25.10	0.75	113.94
Last 5	14:28:44	1800.00	19.33	5.76	1139.92	1.89	25.20	0.82	117.08
Last 5	14:33:44	2099.99	19.24	5.75	1115.76	1.67	25.20	0.86	121.91
Last 5	14:38:49	2404.99	19.30	5.74	1113.89	1.80	25.20	0.89	118.64
Variance 0			-0.05	-0.01	-39.06			0.07	3.13
Variance 1			-0.09	-0.00	-24.16			0.04	4.83
Variance 2			0.06	-0.01	-1.87			0.03	-3.27

Notes

Sampled at 14:40. Cloudy 80s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-16 12:49:11

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 43.15 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.044858 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 51 in
Total Volume Pumped 1.7 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%	+/- 0		+/- 10%	+/- 0
Last 5	12:23:32	5421.95	22.94	6.58	443.45	1.25	47.00	2.04	73.63
Last 5	12:28:37	5726.95	22.99	6.59	460.09	1.41	47.10	2.20	75.95
Last 5	12:33:40	6029.94	23.87	6.59	472.84	1.85	47.20	2.33	76.42
Last 5	12:38:40	6329.93	25.33	6.63	479.98	1.33	47.20	2.41	76.80
Last 5	12:43:40	6629.93	25.63	6.63	486.87	1.46	47.30	2.46	77.88
Variance 0			0.88	-0.00	12.75			0.13	0.47
Variance 1			1.46	0.04	7.14			0.08	0.38
Variance 2			0.31	0.00	6.89			0.05	1.08

Notes

Sampled at 12:45. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 14:28:55

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 25.45"
Longitude -83° -42' -3.46"
Sonde SN 369550
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.32 ft
Screen Length 10 ft
Depth to Water 23.72 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.853331 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 12 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%	+/- 0		+/- 0.2	+/- 0
Last 5	14:03:27	1200.02	20.16	5.76	179.96	0.78	24.00	4.48	112.19
Last 5	14:08:27	1500.01	20.15	5.76	179.79	0.68	24.00	4.34	111.69
Last 5	14:13:27	1800.01	20.07	5.77	180.37	0.77	24.00	4.38	110.87
Last 5	14:18:27	2100.00	20.11	5.77	179.97	0.79	24.00	4.17	110.64
Last 5	14:23:27	2400.00	20.11	5.67	180.21	0.65	24.00	4.38	112.01
Variance 0			-0.08	0.00	0.58			0.04	-0.82
Variance 1			0.04	0.00	-0.41			-0.20	-0.23
Variance 2			0.00	-0.10	0.25			0.21	1.37

Notes

Collected at 14:28. Sunny 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 11:17:08

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 25.60 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.9000674 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:55:15	601.04	22.18	6.29	456.03	6.06	25.70	1.77	212.22
Last 5	11:00:15	901.03	22.27	6.22	457.95	5.16	25.70	0.68	255.12
Last 5	11:05:15	1201.02	22.40	6.21	459.43	4.88	25.70	0.40	334.52
Last 5	11:10:15	1501.02	22.22	6.19	458.00	4.27	25.70	0.31	427.75
Last 5	11:15:15	1801.02	21.86	6.20	457.78	4.05	25.70	0.26	471.97
Variance 0			0.13	-0.01	1.48			-0.28	79.41
Variance 1			-0.18	-0.01	-1.43			-0.10	93.23
Variance 2			-0.37	0.01	-0.22			-0.04	44.22

Notes

Sampled at 11:15. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 12:25:32

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.07 ft
Screen Length 10 ft
Depth to Water 21.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8518038 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:00:29	600.03	21.46	5.91	86.63	5.69	22.00	5.77	218.11
Last 5	12:05:29	900.02	21.18	5.85	86.54	6.21	22.00	5.55	204.64
Last 5	12:10:29	1200.02	21.11	5.83	86.37	5.97	22.00	5.51	192.35
Last 5	12:15:31	1502.01	21.11	5.82	86.26	4.88	22.00	5.50	182.02
Last 5	12:20:31	1802.01	21.11	5.81	86.25	3.98	22.00	5.51	175.40
Variance 0			-0.07	-0.02	-0.17			-0.05	-12.29
Variance 1			0.00	-0.01	-0.11			-0.01	-10.33
Variance 2			-0.00	-0.01	-0.02			0.01	-6.62

Notes

Sampled at 12:25. Cloudy 70s. EB1 here 12:00 - tubing.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 13:23:14

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 22.37 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.8518038 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 6.6 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%	+/- 0		+/- 10%	+/- 0
Last 5	13:01:50	300.04	22.65	5.99	100.25	3.97	22.50	5.35	160.42
Last 5	13:06:50	600.02	20.70	5.96	102.78	3.33	22.60	4.57	154.71
Last 5	13:11:50	900.01	20.57	5.92	103.16	2.87	22.60	4.16	150.44
Last 5	13:16:50	1200.01	20.26	5.91	103.05	2.36	22.60	4.08	146.45
Last 5	13:21:50	1500.00	20.19	5.90	103.04	2.52	22.60	4.02	143.62
Variance 0			-0.12	-0.04	0.38			-0.41	-4.28
Variance 1			-0.31	-0.01	-0.11			-0.08	-3.99
Variance 2			-0.07	-0.01	-0.01			-0.06	-2.83

Notes

Sampled at 13:25. Cloudy 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 09:42:49

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369550
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 42 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 29.25 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 0.7954147 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 25 in
Total Volume Pumped 3.3 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%	+/- 0		+/- 0.2	+/- 0
Last 5	09:21:57	2099.97	20.11	6.42	223.06	2.82	30.80	2.16	100.14
Last 5	09:26:58	2400.97	20.11	6.38	221.10	1.84	31.00	2.14	98.28
Last 5	09:31:58	2700.96	20.15	6.36	220.07	1.55	31.10	2.11	96.41
Last 5	09:36:58	3000.97	20.20	6.35	219.83	1.33	31.20	2.10	94.98
Last 5	09:41:58	3300.96	20.24	6.34	219.79	1.10	31.30	2.06	94.36
Variance 0			0.04	-0.02	-1.03			-0.03	-1.87
Variance 1			0.05	-0.01	-0.24			-0.02	-1.43
Variance 2			0.05	-0.01	-0.04			-0.04	-0.62

Notes

Collected at 09:41. Cloudy 70's. FB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-16 17:29:06

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369550
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 34 ft

Pump placement from TOC 29 ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 20.90 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7181929 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 7.75 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%	+/- 0		+/- 0.2	+/- 0
Last 5	17:08:31	900.00	21.68	5.49	256.71	0.34	21.00	0.46	183.15
Last 5	17:13:31	1200.00	21.53	5.49	256.74	0.21	21.00	0.40	185.67
Last 5	17:18:31	1499.99	21.48	5.47	257.07	0.21	21.00	0.35	185.19
Last 5	17:23:31	1799.98	21.40	5.45	257.56	0.33	21.00	0.34	187.96
Last 5	17:28:31	2099.98	21.31	5.47	257.60	0.28	21.00	0.32	188.31
Variance 0			-0.05	-0.02	0.34			-0.04	-0.48
Variance 1			-0.08	-0.03	0.49			-0.02	2.77
Variance 2			-0.09	0.02	0.03			-0.02	0.35

Notes

Collected at 17:28. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 12:49:51

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Arkwright- Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369550
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 34 ft

Pump placement from TOC 28.9 ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 22.27 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7181929 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4.25 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	+/- 0.1	+/- 5%	+/- 0		+/- 0.2	+/- 0
Last 5	12:29:10	2399.97	22.03	5.31	175.84	6.27	22.60	1.03	128.34
Last 5	12:34:12	2702.01	21.83	5.34	173.46	5.23	22.60	0.93	127.97
Last 5	12:39:12	3001.98	21.88	5.33	172.25	5.12	22.60	0.87	127.52
Last 5	12:44:12	3301.97	21.96	5.32	170.48	4.42	22.60	0.84	128.24
Last 5	12:49:12	3601.96	22.07	5.32	169.54	3.41	22.60	0.81	128.28
Variance 0			0.05	-0.00	-1.21			-0.06	-0.45
Variance 1			0.08	-0.02	-1.77			-0.03	0.72
Variance 2			0.11	0.00	-0.94			-0.03	0.04

Notes

Collected at 12:49. Sunny 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-17 09:43:41

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Arkwright - Ash Pond 3
Site Name Plant Arkwright - Ash Pond 3
Latitude 32° 55' 47.11"
Longitude -83° -42' -19.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 28.02 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.9676365 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:19:34	300.04	20.62	5.80	575.22	5.67	28.30	0.50	75.12
Last 5	09:24:34	600.03	20.40	5.85	580.61	4.93	28.30	0.30	62.99
Last 5	09:29:34	900.02	20.39	5.87	583.92	4.51	28.30	0.29	61.96
Last 5	09:34:34	1200.02	20.44	5.89	585.87	4.83	28.30	0.28	62.62
Last 5	09:39:34	1500.01	20.53	5.90	585.95	4.73	28.30	0.28	63.82
Variance 0			-0.00	0.02	3.31			-0.01	-1.04
Variance 1			0.05	0.02	1.95			-0.00	0.66
Variance 2			0.08	0.01	0.08			-0.00	1.21

Notes

Sampled at 09:45. Cloudy 70s. Extra Rad here

Grab Samples

ANALYTICAL REPORT

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

Laboratory Job ID: 180-88346-1

Laboratory Sample Delivery Group: App III

Client Project/Site: CCR - Plant Arkwright Ash Pond 3

For:

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

Attn: Joju Abraham



Authorized for release by:
4/15/2019 10:54:22 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 Arkwright Ash Pond 3

Job ID: 180-88346-1
SDG: App III

Job ID: 180-88346-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-88346-1

Comments

No additional comments.

Receipt

The samples were received on 3/30/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 1.9° C.

Anions

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

Metals

Method(s) 6020: The post digestion spike % recovery associated with batch 400-436562 was outside of control limits. The following sample is impacted: (180-88346-B-2-B PDS ^5).

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: ARGWC-18 (180-88346-16). Elevated reporting limits (RLs) are provided.

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

General Chemistry

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



Definitions/Glossary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
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.
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 Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

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	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

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

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	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
SDG: App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-88346-1	ARGWC-7	Water	03/28/19 13:45	03/30/19 17:44
180-88346-2	ARGWC-8	Water	03/28/19 07:57	03/30/19 17:44
180-88346-3	ARGWC-9	Water	03/28/19 14:18	03/30/19 17:44
180-88346-4	ARGWC-16	Water	03/28/19 12:35	03/30/19 17:44
180-88346-5	ARGWC-17	Water	03/28/19 11:35	03/30/19 17:44
180-88346-6	EB-1-3-28-19	Water	03/28/19 14:50	03/30/19 17:44
180-88346-7	FB-1-3-27-19	Water	03/27/19 18:35	03/30/19 17:44
180-88346-8	DUP-1	Water	03/27/19 00:00	03/30/19 17:44
180-88346-9	ARGWA-3	Water	03/27/19 11:08	03/30/19 17:44
180-88346-10	ARGWA-5	Water	03/27/19 13:06	03/30/19 17:44
180-88346-11	ARGWA-12	Water	03/27/19 17:30	03/30/19 17:44
180-88346-12	ARGWA-13	Water	03/26/19 16:14	03/30/19 17:44
180-88346-13	ARGWA-14	Water	03/27/19 09:06	03/30/19 17:44
180-88346-14	ARGWC-10	Water	03/28/19 12:02	03/30/19 17:44
180-88346-15	ARGWC-15	Water	03/27/19 17:31	03/30/19 17:44
180-88346-16	ARGWC-18	Water	03/27/19 18:26	03/30/19 17:44

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
SDG: App III

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PIT
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

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

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
SDG: App III

Client Sample ID: ARGWC-7

Lab Sample ID: 180-88346-1

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 07:31	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:22	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-8

Lab Sample ID: 180-88346-2

Date Collected: 03/28/19 07:57

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 08:19	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:26	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-9

Lab Sample ID: 180-88346-3

Date Collected: 03/28/19 14:18

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275438	04/11/19 08:31	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:46	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-16

Lab Sample ID: 180-88346-4

Date Collected: 03/28/19 12:35

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 08:34	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	300.0		5			275293	04/10/19 11:13	MJH	TAL PIT
Instrument ID: CHICS2100B										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
SDG: App III

Client Sample ID: ARGWC-16

Lab Sample ID: 180-88346-4

Date Collected: 03/28/19 12:35

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:50	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: ARGWC-17

Lab Sample ID: 180-88346-5

Date Collected: 03/28/19 11:35

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	275293	04/10/19 13:35	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:13	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EB-1-3-28-19

Lab Sample ID: 180-88346-6

Date Collected: 03/28/19 14:50

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275438	04/11/19 08:00	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:17	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FB-1-3-27-19

Lab Sample ID: 180-88346-7

Date Collected: 03/27/19 18:35

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 10:09	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:21	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: DUP-1
Date Collected: 03/27/19 00:00
Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275438	04/11/19 08:47	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:25	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-3
Date Collected: 03/27/19 11:08
Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275438	04/11/19 09:03	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:29	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-5
Date Collected: 03/27/19 13:06
Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275438	04/11/19 09:51	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:33	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-12
Date Collected: 03/27/19 17:30
Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 18:06	MJH	TAL PIT
Instrument ID: CHICS2100B										

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWA-12

Lab Sample ID: 180-88346-11

Date Collected: 03/27/19 17:30

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:37	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-13

Lab Sample ID: 180-88346-12

Date Collected: 03/26/19 16:14

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 10:25	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	300.0		5			275293	04/10/19 18:54	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:41	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274515	04/01/19 14:05	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWA-14

Lab Sample ID: 180-88346-13

Date Collected: 03/27/19 09:06

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 10:41	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:45	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-10

Lab Sample ID: 180-88346-14

Date Collected: 03/28/19 12:02

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275438	04/11/19 10:06	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:49	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274717	04/03/19 11:13	AVS	TAL PIT
Instrument ID: NOEQUIP										

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Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWC-15

Lab Sample ID: 180-88346-15

Date Collected: 03/27/19 17:31

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 11:29	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 11:13	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: ARGWC-18

Lab Sample ID: 180-88346-16

Date Collected: 03/27/19 18:26

Matrix: Water

Date Received: 03/30/19 17:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			275293	04/10/19 10:57	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Analysis	300.0		5			275293	04/10/19 19:10	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 11:17	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total Recoverable	Prep	3005A	DL		50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25			436562	04/10/19 12:03	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274611	04/02/19 12:58	TAM	TAL PIT
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

Analyst References:

Lab: TAL PEN
 Batch Type: Prep
 DRE = Daniel Etscheid
 Batch Type: Analysis
 DRE = Daniel Etscheid
 Lab: TAL PIT
 Batch Type: Analysis
 AVS = Abbey Smith
 MJH = Matthew Hartman
 TAM = Tessa Mastalski

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWC-7

Lab Sample ID: 180-88346-1

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.71	mg/L			04/10/19 07:31	1
Fluoride	<0.026		0.20	0.026	mg/L			04/10/19 07:31	1
Sulfate	45		1.0	0.38	mg/L			04/10/19 07:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.087		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 09:22	5
Calcium	11		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 09:22	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		10	10	mg/L			04/03/19 11:13	1

Client Sample ID: ARGWC-8

Lab Sample ID: 180-88346-2

Date Collected: 03/28/19 07:57

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		1.0	0.71	mg/L			04/10/19 08:19	1
Fluoride	0.089	J	0.20	0.026	mg/L			04/10/19 08:19	1
Sulfate	66		1.0	0.38	mg/L			04/10/19 08:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 09:26	5
Calcium	52		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 09:26	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	290		10	10	mg/L			04/03/19 11:13	1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-88346-3

Date Collected: 03/28/19 14:18

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		1.0	0.71	mg/L			04/11/19 08:31	1
Fluoride	<0.026		0.20	0.026	mg/L			04/11/19 08:31	1
Sulfate	1.0		1.0	0.38	mg/L			04/11/19 08:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.044	J	0.050	0.021	mg/L		04/09/19 17:17	04/10/19 09:46	5
Calcium	5.6		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 09:46	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	77		10	10	mg/L			04/03/19 11:13	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWC-16

Lab Sample ID: 180-88346-4

Date Collected: 03/28/19 12:35

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.71	mg/L			04/10/19 08:34	1
Fluoride	<0.026		0.20	0.026	mg/L			04/10/19 08:34	1
Sulfate	220		5.0	1.9	mg/L			04/10/19 11:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.080		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 09:50	5
Calcium	41		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 09:50	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		10	10	mg/L			04/03/19 11:13	1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-88346-5

Date Collected: 03/28/19 11:35

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.71	mg/L			04/10/19 13:35	1
Fluoride	<0.026		0.20	0.026	mg/L			04/10/19 13:35	1
Sulfate	59		1.0	0.38	mg/L			04/10/19 13:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.022	J	0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:13	5
Calcium	10		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:13	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		10	10	mg/L			04/03/19 11:13	1

Client Sample ID: EB-1-3-28-19

Lab Sample ID: 180-88346-6

Date Collected: 03/28/19 14:50

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/11/19 08:00	1
Fluoride	<0.026		0.20	0.026	mg/L			04/11/19 08:00	1
Sulfate	<0.38		1.0	0.38	mg/L			04/11/19 08:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:17	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:17	5

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

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: FB-1-3-27-19

Lab Sample ID: 180-88346-7

Date Collected: 03/27/19 18:35

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/10/19 10:09	1
Fluoride	<0.026		0.20	0.026	mg/L			04/10/19 10:09	1
Sulfate	<0.38		1.0	0.38	mg/L			04/10/19 10:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:21	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:21	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: DUP-1

Lab Sample ID: 180-88346-8

Date Collected: 03/27/19 00:00

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.71	mg/L			04/11/19 08:47	1
Fluoride	0.034	J	0.20	0.026	mg/L			04/11/19 08:47	1
Sulfate	0.43	J	1.0	0.38	mg/L			04/11/19 08:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:25	5
Calcium	5.6		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:25	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		10	10	mg/L			04/02/19 12:58	1

Client Sample ID: ARGWA-3

Lab Sample ID: 180-88346-9

Date Collected: 03/27/19 11:08

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.71	mg/L			04/11/19 09:03	1
Fluoride	0.034	J	0.20	0.026	mg/L			04/11/19 09:03	1
Sulfate	0.38	J	1.0	0.38	mg/L			04/11/19 09:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:29	5
Calcium	5.4		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:29	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	69		10	10	mg/L			04/02/19 12:58	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWA-5

Lab Sample ID: 180-88346-10

Date Collected: 03/27/19 13:06

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.71	mg/L			04/11/19 09:51	1
Fluoride	0.026	J	0.20	0.026	mg/L			04/11/19 09:51	1
Sulfate	0.55	J	1.0	0.38	mg/L			04/11/19 09:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:33	5
Calcium	4.5		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:33	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	61		10	10	mg/L			04/02/19 12:58	1

Client Sample ID: ARGWA-12

Lab Sample ID: 180-88346-11

Date Collected: 03/27/19 17:30

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		1.0	0.71	mg/L			04/10/19 18:06	1
Fluoride	0.031	J	0.20	0.026	mg/L			04/10/19 18:06	1
Sulfate	9.1		1.0	0.38	mg/L			04/10/19 18:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:37	5
Calcium	11		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:37	5

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

Client Sample ID: ARGWA-13

Lab Sample ID: 180-88346-12

Date Collected: 03/26/19 16:14

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.71	mg/L			04/10/19 10:25	1
Fluoride	<0.026		0.20	0.026	mg/L			04/10/19 10:25	1
Sulfate	430		5.0	1.9	mg/L			04/10/19 18:54	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.32		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:41	5
Calcium	95		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:41	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	750		10	10	mg/L			04/01/19 14:05	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWA-14

Lab Sample ID: 180-88346-13

Date Collected: 03/27/19 09:06

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			04/10/19 10:41	1
Fluoride	0.15	J	0.20	0.026	mg/L			04/10/19 10:41	1
Sulfate	15		1.0	0.38	mg/L			04/10/19 10:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.032	J	0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:45	5
Calcium	42		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:45	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	330		10	10	mg/L			04/02/19 12:58	1

Client Sample ID: ARGWC-10

Lab Sample ID: 180-88346-14

Date Collected: 03/28/19 12:02

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.71	mg/L			04/11/19 10:06	1
Fluoride	0.030	J	0.20	0.026	mg/L			04/11/19 10:06	1
Sulfate	0.38	J	1.0	0.38	mg/L			04/11/19 10:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 10:49	5
Calcium	7.3		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 10:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		10	10	mg/L			04/03/19 11:13	1

Client Sample ID: ARGWC-15

Lab Sample ID: 180-88346-15

Date Collected: 03/27/19 17:31

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		1.0	0.71	mg/L			04/10/19 11:29	1
Fluoride	0.050	J	0.20	0.026	mg/L			04/10/19 11:29	1
Sulfate	7.2		1.0	0.38	mg/L			04/10/19 11:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 11:13	5
Calcium	28		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 11:13	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		10	10	mg/L			04/02/19 12:58	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Client Sample ID: ARGWC-18

Lab Sample ID: 180-88346-16

Date Collected: 03/27/19 18:26

Matrix: Water

Date Received: 03/30/19 17:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.71	mg/L			04/10/19 10:57	1
Fluoride	0.050	J	0.20	0.026	mg/L			04/10/19 10:57	1
Sulfate	190		5.0	1.9	mg/L			04/10/19 19:10	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 11:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.3		0.25	0.11	mg/L		04/09/19 17:17	04/10/19 12:03	25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10	10	mg/L			04/02/19 12:58	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-275293/5
Matrix: Water
Analysis Batch: 275293

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			04/10/19 05:49	1
Fluoride	<0.026		0.20	0.026	mg/L			04/10/19 05:49	1
Sulfate	<0.38		1.0	0.38	mg/L			04/10/19 05:49	1

Lab Sample ID: LCS 180-275293/6
Matrix: Water
Analysis Batch: 275293

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.4		mg/L		101	90 - 110
Fluoride	2.50	2.40		mg/L		96	90 - 110
Sulfate	50.0	49.5		mg/L		99	90 - 110

Lab Sample ID: 180-88346-1 MS
Matrix: Water
Analysis Batch: 275293

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.1		25.0	29.8		mg/L		99	80 - 120
Fluoride	<0.026		1.25	1.18		mg/L		94	80 - 120
Sulfate	45		25.0	67.3		mg/L		90	80 - 120

Lab Sample ID: 180-88346-1 MSD
Matrix: Water
Analysis Batch: 275293

Client Sample ID: ARGWC-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	5.1		25.0	29.8		mg/L		99	80 - 120	0	20
Fluoride	<0.026		1.25	1.17		mg/L		93	80 - 120	1	20
Sulfate	45		25.0	67.3		mg/L		90	80 - 120	0	20

Lab Sample ID: 180-88346-15 MS
Matrix: Water
Analysis Batch: 275293

Client Sample ID: ARGWC-15
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	27.1		mg/L		101	80 - 120
Fluoride	0.050	J	1.25	1.25		mg/L		96	80 - 120
Sulfate	7.2		25.0	31.6		mg/L		98	80 - 120

Lab Sample ID: 180-88346-15 MSD
Matrix: Water
Analysis Batch: 275293

Client Sample ID: ARGWC-15
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	24.9		mg/L		92	80 - 120	9	20
Fluoride	0.050	J	1.25	1.14		mg/L		87	80 - 120	9	20
Sulfate	7.2		25.0	28.6		mg/L		85	80 - 120	10	20

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-275438/5
 Matrix: Water
 Analysis Batch: 275438

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			04/11/19 06:02	1
Fluoride	<0.026		0.20	0.026	mg/L			04/11/19 06:02	1
Sulfate	<0.38		1.0	0.38	mg/L			04/11/19 06:02	1

Lab Sample ID: LCS 180-275438/6
 Matrix: Water
 Analysis Batch: 275438

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	1.15		mg/L		92	90 - 110
Sulfate	25.0	25.1		mg/L		100	90 - 110

Lab Sample ID: 180-88346-14 MS
 Matrix: Water
 Analysis Batch: 275438

Client Sample ID: ARGWC-10
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.7		25.0	29.5		mg/L		103	80 - 120
Fluoride	0.030	J	1.25	1.20		mg/L		94	80 - 120
Sulfate	0.38	J	25.0	25.4		mg/L		100	80 - 120

Lab Sample ID: 180-88346-14 MSD
 Matrix: Water
 Analysis Batch: 275438

Client Sample ID: ARGWC-10
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.7		25.0	29.5		mg/L		103	80 - 120	0	20
Fluoride	0.030	J	1.25	1.21		mg/L		95	80 - 120	1	20
Sulfate	0.38	J	25.0	25.6		mg/L		101	80 - 120	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-436480/1-A ^5
 Matrix: Water
 Analysis Batch: 436562

Client Sample ID: Method Blank
 Prep Type: Total Recoverable
 Prep Batch: 436480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		04/09/19 17:17	04/10/19 09:10	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 17:17	04/10/19 09:10	5

Lab Sample ID: LCS 400-436480/2-A
 Matrix: Water
 Analysis Batch: 436562

Client Sample ID: Lab Control Sample
 Prep Type: Total Recoverable
 Prep Batch: 436480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.103		mg/L		103	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
SDG: App III

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

Lab Sample ID: 180-88346-2 MS
Matrix: Water
Analysis Batch: 436562

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 436480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	1.3		0.100	1.33	4	mg/L		80	75 - 125
Calcium	52		5.00	56.8	4	mg/L		96	75 - 125

Lab Sample ID: 180-88346-2 MSD
Matrix: Water
Analysis Batch: 436562

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 436480

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	1.3		0.100	1.34	4	mg/L		90	75 - 125	1	20
Calcium	52		5.00	56.6	4	mg/L		93	75 - 125	0	20

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

Lab Sample ID: MB 180-274515/2
Matrix: Water
Analysis Batch: 274515

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			04/01/19 14:05	1

Lab Sample ID: LCS 180-274515/1
Matrix: Water
Analysis Batch: 274515

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	304	318		mg/L		105	80 - 120

Lab Sample ID: 180-88346-12 DU
Matrix: Water
Analysis Batch: 274515

Client Sample ID: ARGWA-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	750		752		mg/L		0.4	10

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	Limits
Total Dissolved Solids	304	308		mg/L		101	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

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

Lab Sample ID: 180-88346-13 DU
Matrix: Water
Analysis Batch: 274611

Client Sample ID: ARGWA-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	330		331		mg/L		0.3	10

Lab Sample ID: 180-88346-16 DU
Matrix: Water
Analysis Batch: 274611

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	430		426		mg/L		0.2	10

Lab Sample ID: MB 180-274641/2
Matrix: Water
Analysis Batch: 274641

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 14:42	1

Lab Sample ID: LCS 180-274641/1
Matrix: Water
Analysis Batch: 274641

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	338		mg/L		111	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: 180-88346-4 DU
Matrix: Water
Analysis Batch: 274717

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	370		369		mg/L		0.3	10

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

HPLC/IC

Analysis Batch: 275293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-1	ARGWC-7	Total/NA	Water	300.0	
180-88346-2	ARGWC-8	Total/NA	Water	300.0	
180-88346-4	ARGWC-16	Total/NA	Water	300.0	
180-88346-4	ARGWC-16	Total/NA	Water	300.0	
180-88346-5	ARGWC-17	Total/NA	Water	300.0	
180-88346-7	FB-1-3-27-19	Total/NA	Water	300.0	
180-88346-11	ARGWA-12	Total/NA	Water	300.0	
180-88346-12	ARGWA-13	Total/NA	Water	300.0	
180-88346-12	ARGWA-13	Total/NA	Water	300.0	
180-88346-13	ARGWA-14	Total/NA	Water	300.0	
180-88346-15	ARGWC-15	Total/NA	Water	300.0	
180-88346-16	ARGWC-18	Total/NA	Water	300.0	
180-88346-16	ARGWC-18	Total/NA	Water	300.0	
MB 180-275293/5	Method Blank	Total/NA	Water	300.0	
LCS 180-275293/6	Lab Control Sample	Total/NA	Water	300.0	
180-88346-1 MS	ARGWC-7	Total/NA	Water	300.0	
180-88346-1 MSD	ARGWC-7	Total/NA	Water	300.0	
180-88346-15 MS	ARGWC-15	Total/NA	Water	300.0	
180-88346-15 MSD	ARGWC-15	Total/NA	Water	300.0	

Analysis Batch: 275438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-3	ARGWC-9	Total/NA	Water	300.0	
180-88346-6	EB-1-3-28-19	Total/NA	Water	300.0	
180-88346-8	DUP-1	Total/NA	Water	300.0	
180-88346-9	ARGWA-3	Total/NA	Water	300.0	
180-88346-10	ARGWA-5	Total/NA	Water	300.0	
180-88346-14	ARGWC-10	Total/NA	Water	300.0	
MB 180-275438/5	Method Blank	Total/NA	Water	300.0	
LCS 180-275438/6	Lab Control Sample	Total/NA	Water	300.0	
180-88346-14 MS	ARGWC-10	Total/NA	Water	300.0	
180-88346-14 MSD	ARGWC-10	Total/NA	Water	300.0	

Metals

Prep Batch: 436480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-1	ARGWC-7	Total Recoverable	Water	3005A	
180-88346-2	ARGWC-8	Total Recoverable	Water	3005A	
180-88346-3	ARGWC-9	Total Recoverable	Water	3005A	
180-88346-4	ARGWC-16	Total Recoverable	Water	3005A	
180-88346-5	ARGWC-17	Total Recoverable	Water	3005A	
180-88346-6	EB-1-3-28-19	Total Recoverable	Water	3005A	
180-88346-7	FB-1-3-27-19	Total Recoverable	Water	3005A	
180-88346-8	DUP-1	Total Recoverable	Water	3005A	
180-88346-9	ARGWA-3	Total Recoverable	Water	3005A	
180-88346-10	ARGWA-5	Total Recoverable	Water	3005A	
180-88346-11	ARGWA-12	Total Recoverable	Water	3005A	
180-88346-12	ARGWA-13	Total Recoverable	Water	3005A	
180-88346-13	ARGWA-14	Total Recoverable	Water	3005A	
180-88346-14	ARGWC-10	Total Recoverable	Water	3005A	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

Metals (Continued)

Prep Batch: 436480 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-15	ARGWC-15	Total Recoverable	Water	3005A	
180-88346-16 - DL	ARGWC-18	Total Recoverable	Water	3005A	
180-88346-16	ARGWC-18	Total Recoverable	Water	3005A	
MB 400-436480/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-436480/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-88346-2 MS	ARGWC-8	Total Recoverable	Water	3005A	
180-88346-2 MSD	ARGWC-8	Total Recoverable	Water	3005A	

Analysis Batch: 436562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-1	ARGWC-7	Total Recoverable	Water	6020	436480
180-88346-2	ARGWC-8	Total Recoverable	Water	6020	436480
180-88346-3	ARGWC-9	Total Recoverable	Water	6020	436480
180-88346-4	ARGWC-16	Total Recoverable	Water	6020	436480
180-88346-5	ARGWC-17	Total Recoverable	Water	6020	436480
180-88346-6	EB-1-3-28-19	Total Recoverable	Water	6020	436480
180-88346-7	FB-1-3-27-19	Total Recoverable	Water	6020	436480
180-88346-8	DUP-1	Total Recoverable	Water	6020	436480
180-88346-9	ARGWA-3	Total Recoverable	Water	6020	436480
180-88346-10	ARGWA-5	Total Recoverable	Water	6020	436480
180-88346-11	ARGWA-12	Total Recoverable	Water	6020	436480
180-88346-12	ARGWA-13	Total Recoverable	Water	6020	436480
180-88346-13	ARGWA-14	Total Recoverable	Water	6020	436480
180-88346-14	ARGWC-10	Total Recoverable	Water	6020	436480
180-88346-15	ARGWC-15	Total Recoverable	Water	6020	436480
180-88346-16	ARGWC-18	Total Recoverable	Water	6020	436480
180-88346-16 - DL	ARGWC-18	Total Recoverable	Water	6020	436480
MB 400-436480/1-A ^5	Method Blank	Total Recoverable	Water	6020	436480
LCS 400-436480/2-A	Lab Control Sample	Total Recoverable	Water	6020	436480
180-88346-2 MS	ARGWC-8	Total Recoverable	Water	6020	436480
180-88346-2 MSD	ARGWC-8	Total Recoverable	Water	6020	436480

General Chemistry

Analysis Batch: 274515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-12	ARGWA-13	Total/NA	Water	SM 2540C	
MB 180-274515/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274515/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-88346-12 DU	ARGWA-13	Total/NA	Water	SM 2540C	

Analysis Batch: 274611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-8	DUP-1	Total/NA	Water	SM 2540C	
180-88346-9	ARGWA-3	Total/NA	Water	SM 2540C	
180-88346-10	ARGWA-5	Total/NA	Water	SM 2540C	
180-88346-11	ARGWA-12	Total/NA	Water	SM 2540C	
180-88346-13	ARGWA-14	Total/NA	Water	SM 2540C	
180-88346-15	ARGWC-15	Total/NA	Water	SM 2540C	
180-88346-16	ARGWC-18	Total/NA	Water	SM 2540C	
MB 180-274611/2	Method Blank	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant Arkwright Ash Pond 3

Job ID: 180-88346-1
 SDG: App III

General Chemistry (Continued)

Analysis Batch: 274611 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-274611/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-88346-13 DU	ARGWA-14	Total/NA	Water	SM 2540C	
180-88346-16 DU	ARGWC-18	Total/NA	Water	SM 2540C	

Analysis Batch: 274641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-7	FB-1-3-27-19	Total/NA	Water	SM 2540C	
MB 180-274641/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274641/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 274717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-1	ARGWC-7	Total/NA	Water	SM 2540C	
180-88346-2	ARGWC-8	Total/NA	Water	SM 2540C	
180-88346-3	ARGWC-9	Total/NA	Water	SM 2540C	
180-88346-4	ARGWC-16	Total/NA	Water	SM 2540C	
180-88346-5	ARGWC-17	Total/NA	Water	SM 2540C	
180-88346-6	EB-1-3-28-19	Total/NA	Water	SM 2540C	
180-88346-14	ARGWC-10	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	
180-88346-4 DU	ARGWC-16	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information Client Contact: <u>Joyi Abraham</u> Phone: <u>770-594-5998</u> Company: <u>Southern Company</u> Address: <u>PO BOX 2641 GSC8</u> City: <u>Birmingham</u> State, Zip: <u>AL, 35291</u> PO#: <u>SCS10347656</u> Email: <u>JAbraham@southernco.com</u> Project Name: <u>CCR Plant Arkwright - Ash Pond 3</u> Site: <u>Georgia</u>		Lab PM: <u>Veronica Borlat</u> E-Mail: <u>Veronica.borlat@testamerica.com</u> Carrier Tracking No(s): COC No: <u>400-73521-29028.1</u> Page: Page #: Job #: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)					
Due Date Requested: TAT Requested (days): PO#: <u>SCS10347656</u> WO#: <u>40007712</u> Project #: <u>SSOW#</u>		Analysis Requested State Metals (arsenic, barium, cadmium, lead, silver, and selenium) 300 ORGM, 28D - Chloride, Fluoride & Sulfate, 2540C - TDS Metals - App III Perform MS/MSD (Yes or No)					
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=wastewater, BT=Trace, A=Air)		Field Filtered Sample (Yes or No) D N D Total Number of containers Special Instructions/Note: APP III plus state metals					
AR-GWC-7 AR-GWC-8 AR-GWC-9 AR-GWC-16 AR-GWC-17 EB-1-3-28-19 FB-1-3-27-19 Dup-1	3-28-19 3-29-19 3-28-19 3-28-19 3-28-19 3-28-19 3-27-19 3-27-19	1345 0757 1418 1235 1135 1450 1835 -	G G G G G G G G	Water Water Water Water Water Water Water Water Water Water Water Water	N N N N N N N N N N N N N	2 2 2 2 2 2 2 2	APP III plus state metals
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For					
Empty Kit Relinquished by: Relinquished by: <u>Priscilla Sanchez</u> Relinquished by: <u>Priscilla Sanchez</u> Relinquished by:		Special Instructions/QC Requirements: Date: <u>3-29-19</u> / <u>11:52am</u> Date/Time: <u>3-29-19</u> / <u>11:52am</u> Date/Time: <u>3-29-19</u> / <u>10:00am</u> Date/Time:					
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 770-544-5998 Lab PM: Veronica Bortot E-Mail: Veronica.bortot@testam.com		Camer Tracking No(s): COC No: 400-73521-29028.1 Page: _____ Job #: _____	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007712 SOW#:		Analysis Requested Metals - App III 300 ORGFM_28D - Chloride, Fluoride & Sulfate, 2540C - State Metals (arsenic, barium, cadmium, lead, silver, and selenium) Total Number of Containers: 2	
Sample Identification ARGWA-3 ARGWA-5 ARGWA-12 ARGWA-13 ARGWA-14 ARGWC-10 ARGWC-15 ARGWC-18		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsHClO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify)	
Sample Date 3-27-19 3-27-19 3-27-19 3-26-19 3-27-19 3-28-19 3-27-19 3-27-19		Special Instructions/Note: APP III plus state metals	
Sample Time 1108 1306 1730 1614 0906 1202 1731 1826		Field Filtered Sample (Yes or No) D N D D N D D N D D N D D N D D N D D N D D N D	
Sample Type (C=comp, G=grab) G G G G G G G G		Matrix (W=water, S=solid, O=other) Water Water Water Water Water Water Water Water	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Relinquished by: <i>Veronica Bortot</i> Date/Time: 3/29/19 / 11:52am Company: Southern Company		Received by: <i>Veronica Bortot</i> Date/Time: 3/29/19 11:52am Company: Southern Company	
Relinquished by: <i>Veronica Bortot</i> Date/Time: 3/29/19 11:52am Company: Southern Company		Received by: <i>Veronica Bortot</i> Date/Time: 3/29/19 11:52am Company: Southern Company	
Relinquished by: <i>Veronica Bortot</i> Date/Time: 3/29/19 11:52am Company: Southern Company		Received by: <i>Veronica Bortot</i> Date/Time: 3/29/19 11:52am Company: Southern Company	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:			
Cooler Temperature(s) °C and Other Remarks:			



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (678) 966-9991
 GEORGE TAYLOR
 TEST AMERICA ATLANTA
 6500 MCCONOUGH DRIVE
 NORCROSS, GA 30093
 UNITED STATES US

SHIP DATE: 29MAR19
 ACTWGT: 33.10 LB
 CAD: 859116/DAFE3211

BILL RECIPIENT

TO SAMPLE RECEIVING
 TA PITTSBURGH
 301-ALPHA DRIVE

PITTSBURGH PA 15238
 (412) 963-7058
 REF: ACC - GP



1 of 2
 TRK# 4651 0080 9971
 ## MASTER ##

XO AGCA

SATURDAY 12:00P
 PRIORITY OVERNIGHT

15238
 PA-US PIT

1.4 °C
 10

Uncorrected temp
 Thermometer ID

CF 0 Initials B

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



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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

39-434 R112 EXP 10/19

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA, ATLANTA
6500 MCDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES - USA

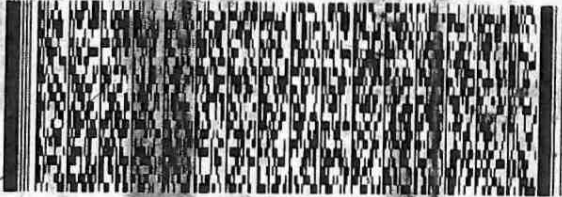
SHIP DATE: 29MAR19
ACTWGT: 53.10 LB
CAD: 859116/CAFE3211

BILL-RECIPIENT

TO **SAMPLE RECEIVING**
TA PITTSBURGH
301 ALPHA DRIVE

PITTSBURGH PA 15238

(412) 983-7068
REF: ACC-GP



2 of 2

MPS# 4651 0080 9982
0263

Mstr# 4651 0080 9971

0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO AGCA

15238

PA-US **PIT**

Uncorrected temp 1.9 °C
Thermometer ID 10

CF 0 Initials B



151966 10/04 MWI

FedEx® Saturday Delivery

151966 10/04 MWI

SDR

PIT ALL

ST 5
RT 639
03.30
9982
12:00
5

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
692554

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:				
Client Contact: Shipping/Receiving		Phone:	Bortot, Veronica	State of Origin:	180-359055.1				
Company: TestAmerica Laboratories, Inc.		E-Mail: veronica.bortot@testamericainc.com	veronica.bortot@testamericainc.com	Georgia	Page 1 of 2				
Address: 3355 McLemore Drive, Pensacola State, Zip: FL, 32514		Due Date Requested: 4/1/2019	Accreditations Required (See note):	Job #:	180-88346-2				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		TAT Requested (days):		Preservation Codes:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Other:				
Email:		PO #:							
Project Name: CCR - Plant Arkwright		WO #:							
Site: Georgia Power Site Sampling Data (GW)		Project #: 18020201							
		SSOW#:							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
ARGWC-7 (180-88346-1)	3/28/19	13:45 Eastern	Water	Water	X	X		1	
ARGWC-8 (180-88346-2)	3/28/19	07:57 Eastern	Water	Water	X	X		1	
ARGWC-9 (180-88346-3)	3/28/19	14:18 Eastern	Water	Water	X	X		1	
ARGWC-16 (180-88346-4)	3/28/19	12:35 Eastern	Water	Water	X	X		1	
ARGWC-17 (180-88346-5)	3/28/19	11:35 Eastern	Water	Water	X	X		1	
EB-1-3-28-19 (180-88346-6)	3/28/19	14:50 Eastern	Water	Water	X	X		1	
FB-1-3-27-19 (180-88346-7)	3/27/19	18:35 Eastern	Water	Water	X	X		1	
DUP-1 (180-88346-8)	3/27/19	Eastern	Water	Water	X	X		1	
ARGWA-3 (180-88346-9)	3/27/19	11:08 Eastern	Water	Water	X	X		1	
<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 analysts/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									
Unconfirmed									
Deliverable Requested: I, II, III, IV, Other (specify)									
Primary Deliverable Rank: 2									
Empty Kit Relinquished by:									
Date:									
Time:									
Method of Shipment:									
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Special Instructions/QC Requirements:									
Received by: <i>Dojo</i> Date/Time: <i>4/3/19 12m</i> Company: <i>TA</i>									
Received by: <i>Kathy R Avery</i> Date/Time: <i>4-4-19 853</i> Company: <i>TA</i>									
Received by: _____ Date/Time: _____ Company: _____									
Cooler Temperature(s) °C and Other Remarks: <i>5.0°C IR8</i>									
Custody Seal No.: <input type="checkbox"/> Yes <input type="checkbox"/> No									



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:				
Client Contact: Shipping/Receiving		Phone:	Bortot, Veronica	State of Origin: Georgia	180-359055.2				
Company: TestAmerica Laboratories, Inc.		E-Mail: veronica.bortot@testamericainc.com		Page 2 of 2					
Address: 3355 McLemore Drive, Pensacola FL, 32514		Accreditations Required (See note):		Job #: 180-88346-2					
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		Due Date Requested: 4/11/2019		Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (Specify)					
Email:		TAT Requested (days):		Other:					
Project #: CCR - Plant Arkwright		PO #:							
Site: Georgia Power Site Sampling Data (GW)		WO #:							
		Project #: 18020201							
		SSOW#:							
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)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
ARGWA-5 (180-88346-10)	3/27/19	13:06 Eastern		Water		X		1	
ARGWA-12 (180-88346-11)	3/27/19	17:30 Eastern		Water		X		1	
ARGWA-13 (180-88346-12)	3/26/19	16:14 Eastern		Water		X		1	
ARGWA-14 (180-88346-13)	3/27/19	09:06 Eastern		Water		X		1	
ARGWC-10 (180-88346-14)	3/28/19	12:02 Eastern		Water		X		1	
ARGWC-15 (180-88346-15)	3/27/19	17:31 Eastern		Water		X		1	
ARGWC-18 (180-88346-16)	3/27/19	18:26 Eastern		Water		X		1	
<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. I</p>									
<p>Possible Hazard Identification</p> <p>Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____</p> <p>Relinquished by: <i>[Signature]</i> Date/Time: 4/13/19 1200 Company: <i>[Signature]</i> Received by: <i>Kathy R Owen</i> Date/Time: 4-11-19 853 Company: TA Company</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____</p>									



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(e):	COC No:
Client Contact:		Bortol, Veronica			180-359055.1
Shipping/Receiving		Phone:	E-Mail:	State of Origin:	Page:
Company:		TestAmerica Laboratories, Inc.	veronica.bortol@testamericainc.com	Georgia	Page 1 of 2
Address:		3355 McLemore Drive,		Accreditations Required (See note):	Job #:
City:		Pensacola			180-88346-1
State, Zip:		FL, 32514		Analysis Requested	Preservation Codes:
Phone:		850-474-1001(Tel) 850-478-2671(Fax)			A - HCL M - Hexane B - NaOH N - None O - AsNaO2 C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify)
Project Name:		CCR - Plant Arkwright Ash Pond 3			
Site:		Georgia Power Site Sampling Data (SW)			
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=BIOTISSUE, A=Air)
ARGWC-7 (180-88346-1)	3/28/19	13:45 Eastern	Water		
ARGWC-8 (180-88346-2)	3/28/19	07:57 Eastern	Water		
ARGWC-9 (180-88346-3)	3/28/19	14:18 Eastern	Water		
ARGWC-16 (180-88346-4)	3/28/19	12:35 Eastern	Water		
ARGWC-17 (180-88346-5)	3/28/19	11:35 Eastern	Water		
EB-1-3-28-19 (180-88346-6)	3/28/19	14:50 Eastern	Water		
FB-1-3-27-19 (180-88346-7)	3/27/19	18:35 Eastern	Water		
DUP-1 (180-88346-8)	3/27/19	11:08 Eastern	Water		
ARGWA-3 (180-88346-9)	3/27/19		Water		
<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/test/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					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2					
Empty Kit Relinquished by: _____ Date: _____					
Relinquished by: _____ Date/Time: 4/13/19 1200 Company: DART Company: DART					
Relinquished by: _____ Date/Time: _____ Company: _____					
Relinquished by: _____ Date/Time: _____ Company: _____					
Custody Seals Intact: _____ Custody Seal No.: _____					
Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks: 5.0°C FR 8					
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:					
Method of Shipment:					
Received by: _____ Date/Time: 4-4-19 853 Company: TA					
Received by: _____ Date/Time: _____ Company: _____					
Received by: _____ Date/Time: _____ Company: _____					
Total Number of Containers					
Special Instructions/Note:					



Chain of Custody Record

Client Information (Sub Contract Lab)		Lab P/M: Bortol, Veronica	Carrier Tracking No(s):							
Client Contact: Shipping/Receiving		E-Mail: veronica.bortol@testamericainc.com	State of Origin: Georgia							
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):								
Address: 3355 McLemore Drive, Pensacola Slate, Zip: FL, 32514		Due Date Requested: 4/11/2019	COC No: 180-359055.2							
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		TAT Requested (days): 1	Page: Page 2 of 2							
Email:		PO #:	Job #: 180-88346-1							
Project Name: CCR - Plant Arkwright Ash Pond 3		WO #:								
Site: Georgia Power Site Sampling Data (GW)		Project #: 18020201								
		SSOW#:								
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-wastewater, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7470A/7470A Prep	6020/3005A (MOD) App III B and Ca	Total Number of Containers	Special Instructions/Note:
ARGWA-5 (180-88346-10)	3/27/19	13:06 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWA-12 (180-88346-11)	3/27/19	17:30 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWA-13 (180-88346-12)	3/26/19	16:14 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWA-14 (180-88346-13)	3/27/19	09:06 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWC-10 (180-88346-14)	3/28/19	12:02 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWC-15 (180-88346-15)	3/27/19	17:31 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWC-18 (180-88346-16)	3/27/19	18:26 Eastern	Water	Water			X	X	1	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
<p>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. </p>										
<p>Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks:</p>										
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:</p>										



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88346-1
SDG Number: App III

Login Number: 88346
List Number: 1
Creator: Kovitch, Christina M

List Source: Eurofins 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?	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: 180-88346-1

SDG Number: App III

Login Number: 88346

List Number: 2

Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

List Creation: 04/04/19 05:26 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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0°C IR 8
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	



ANALYTICAL REPORT

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

Laboratory Job ID: 180-88346-2

Laboratory Sample Delivery Group: State Compliance
Client Project/Site: CCR - Plant Arkwright

For:

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

Attn: Joju Abraham



Authorized for release by:
4/15/2019 10:48:31 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

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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 Arkwright

Job ID: 180-88346-2
SDG: State Compliance

Job ID: 180-88346-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-88346-2

Comments

No additional comments.

Receipt

The samples were received on 3/30/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 1.9° C.

Metals

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

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Definitions/Glossary

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

Job ID: 180-88346-2
SDG: State Compliance

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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 Arkwright

Job ID: 180-88346-2
 SDG: State Compliance

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	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

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

Accreditation/Certification Summary

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

Job ID: 180-88346-2
 SDG: State Compliance

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	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Sample Summary

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

Job ID: 180-88346-2
SDG: State Compliance

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-88346-1	ARGWC-7	Water	03/28/19 13:45	03/30/19 17:44
180-88346-2	ARGWC-8	Water	03/28/19 07:57	03/30/19 17:44
180-88346-3	ARGWC-9	Water	03/28/19 14:18	03/30/19 17:44
180-88346-4	ARGWC-16	Water	03/28/19 12:35	03/30/19 17:44
180-88346-5	ARGWC-17	Water	03/28/19 11:35	03/30/19 17:44
180-88346-6	EB-1-3-28-19	Water	03/28/19 14:50	03/30/19 17:44
180-88346-7	FB-1-3-27-19	Water	03/27/19 18:35	03/30/19 17:44
180-88346-8	DUP-1	Water	03/27/19 00:00	03/30/19 17:44
180-88346-9	ARGWA-3	Water	03/27/19 11:08	03/30/19 17:44
180-88346-10	ARGWA-5	Water	03/27/19 13:06	03/30/19 17:44
180-88346-11	ARGWA-12	Water	03/27/19 17:30	03/30/19 17:44
180-88346-12	ARGWA-13	Water	03/26/19 16:14	03/30/19 17:44
180-88346-13	ARGWA-14	Water	03/27/19 09:06	03/30/19 17:44
180-88346-14	ARGWC-10	Water	03/28/19 12:02	03/30/19 17:44
180-88346-15	ARGWC-15	Water	03/27/19 17:31	03/30/19 17:44
180-88346-16	ARGWC-18	Water	03/27/19 18:26	03/30/19 17:44

Method Summary

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

Job ID: 180-88346-2
SDG: State Compliance

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

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

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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Lab Chronicle

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWC-7

Lab Sample ID: 180-88346-1

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:22	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: ARGWC-8

Lab Sample ID: 180-88346-2

Date Collected: 03/28/19 07:57

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:26	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: ARGWC-9

Lab Sample ID: 180-88346-3

Date Collected: 03/28/19 14:18

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:46	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: ARGWC-16

Lab Sample ID: 180-88346-4

Date Collected: 03/28/19 12:35

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 09:50	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: ARGWC-17

Lab Sample ID: 180-88346-5

Date Collected: 03/28/19 11:35

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:13	DRE	TAL PEN
Instrument ID: ICPMS7700										

Lab Chronicle

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: EB-1-3-28-19

Lab Sample ID: 180-88346-6

Date Collected: 03/28/19 14:50

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:17	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: FB-1-3-27-19

Lab Sample ID: 180-88346-7

Date Collected: 03/27/19 18:35

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:21	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: DUP-1

Lab Sample ID: 180-88346-8

Date Collected: 03/27/19 00:00

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:25	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: ARGWA-3

Lab Sample ID: 180-88346-9

Date Collected: 03/27/19 11:08

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:29	DRE	TAL PEN
Instrument ID: ICPMS7700										

Client Sample ID: ARGWA-5

Lab Sample ID: 180-88346-10

Date Collected: 03/27/19 13:06

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:33	DRE	TAL PEN
Instrument ID: ICPMS7700										

Lab Chronicle

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWA-12

Date Collected: 03/27/19 17:30

Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:37	DRE	TAL PEN

Instrument ID: ICPMS7700

Client Sample ID: ARGWA-13

Date Collected: 03/26/19 16:14

Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:41	DRE	TAL PEN

Instrument ID: ICPMS7700

Client Sample ID: ARGWA-14

Date Collected: 03/27/19 09:06

Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:45	DRE	TAL PEN

Instrument ID: ICPMS7700

Client Sample ID: ARGWC-10

Date Collected: 03/28/19 12:02

Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 10:49	DRE	TAL PEN

Instrument ID: ICPMS7700

Client Sample ID: ARGWC-15

Date Collected: 03/27/19 17:31

Date Received: 03/30/19 17:44

Lab Sample ID: 180-88346-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 11:13	DRE	TAL PEN

Instrument ID: ICPMS7700

Lab Chronicle

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWC-18

Lab Sample ID: 180-88346-16

Date Collected: 03/27/19 18:26

Matrix: Water

Date Received: 03/30/19 17:44

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	436480	04/09/19 17:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/10/19 11:17	DRE	TAL PEN

Instrument ID: ICPMS7700

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Analyst References:

Lab: TAL PEN

Batch Type: Prep

DRE = Daniel Etscheid

Batch Type: Analysis

DRE = Daniel Etscheid

Client Sample Results

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWC-7

Lab Sample ID: 180-88346-1

Date Collected: 03/28/19 13:45

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 09:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 09:22	5
Barium	0.038		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 09:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 09:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 09:22	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 09:22	5

Client Sample ID: ARGWC-8

Lab Sample ID: 180-88346-2

Date Collected: 03/28/19 07:57

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 09:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 09:26	5
Barium	0.045		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 09:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 09:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 09:26	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 09:26	5

Client Sample ID: ARGWC-9

Lab Sample ID: 180-88346-3

Date Collected: 03/28/19 14:18

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 09:46	5
Arsenic	0.00051	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 09:46	5
Barium	0.047		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 09:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 09:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 09:46	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 09:46	5

Client Sample ID: ARGWC-16

Lab Sample ID: 180-88346-4

Date Collected: 03/28/19 12:35

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 09:50	5
Arsenic	0.00057	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 09:50	5
Barium	0.054		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 09:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 09:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 09:50	5
Selenium	0.0017		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 09:50	5

Client Sample Results

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWC-17

Lab Sample ID: 180-88346-5

Date Collected: 03/28/19 11:35

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:13	5
Barium	0.045		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:13	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:13	5

Client Sample ID: EB-1-3-28-19

Lab Sample ID: 180-88346-6

Date Collected: 03/28/19 14:50

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:17	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:17	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:17	5

Client Sample ID: FB-1-3-27-19

Lab Sample ID: 180-88346-7

Date Collected: 03/27/19 18:35

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:21	5
Lead	0.00047 J		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:21	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:21	5

Client Sample ID: DUP-1

Lab Sample ID: 180-88346-8

Date Collected: 03/27/19 00:00

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:25	5
Barium	0.019		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:25	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:25	5

Client Sample Results

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWA-3

Lab Sample ID: 180-88346-9

Date Collected: 03/27/19 11:08

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:29	5
Arsenic	0.00055	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:29	5
Barium	0.019		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:29	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:29	5

Client Sample ID: ARGWA-5

Lab Sample ID: 180-88346-10

Date Collected: 03/27/19 13:06

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:33	5
Arsenic	0.00055	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:33	5
Barium	0.024		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:33	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:33	5

Client Sample ID: ARGWA-12

Lab Sample ID: 180-88346-11

Date Collected: 03/27/19 17:30

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:37	5
Arsenic	0.00049	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:37	5
Barium	0.063		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:37	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:37	5

Client Sample ID: ARGWA-13

Lab Sample ID: 180-88346-12

Date Collected: 03/26/19 16:14

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:41	5
Arsenic	0.00089	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:41	5
Barium	0.029		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:41	5
Selenium	0.015		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:41	5

Client Sample Results

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

Job ID: 180-88346-2
SDG: State Compliance

Client Sample ID: ARGWA-14

Lab Sample ID: 180-88346-13

Date Collected: 03/27/19 09:06

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:45	5
Arsenic	0.0013		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:45	5
Barium	0.054		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:45	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:45	5

Client Sample ID: ARGWC-10

Lab Sample ID: 180-88346-14

Date Collected: 03/28/19 12:02

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 10:49	5
Arsenic	0.0011	J	0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 10:49	5
Barium	0.031		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 10:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 10:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 10:49	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 10:49	5

Client Sample ID: ARGWC-15

Lab Sample ID: 180-88346-15

Date Collected: 03/27/19 17:31

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 11:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 11:13	5
Barium	0.032		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 11:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 11:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 11:13	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 11:13	5

Client Sample ID: ARGWC-18

Lab Sample ID: 180-88346-16

Date Collected: 03/27/19 18:26

Matrix: Water

Date Received: 03/30/19 17:44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 11:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 11:17	5
Barium	0.033		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 11:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 11:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 11:17	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 11:17	5

QC Sample Results

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

Job ID: 180-88346-2
 SDG: State Compliance

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-436480/1-A ^5
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 17:17	04/10/19 09:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 17:17	04/10/19 09:10	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 17:17	04/10/19 09:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 17:17	04/10/19 09:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 17:17	04/10/19 09:10	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 17:17	04/10/19 09:10	5

Lab Sample ID: LCS 400-436480/2-A
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 436480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0562		mg/L		112	80 - 120
Arsenic	0.0500	0.0490		mg/L		98	80 - 120
Barium	0.0500	0.0477		mg/L		95	80 - 120
Cadmium	0.0500	0.0498		mg/L		100	80 - 120
Lead	0.0500	0.0485		mg/L		97	80 - 120
Selenium	0.0500	0.0472		mg/L		94	80 - 120

Lab Sample ID: 180-88346-2 MS
Matrix: Water
Analysis Batch: 436562

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 436480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.00011		0.0500	0.0565		mg/L		113	75 - 125
Arsenic	<0.00046		0.0500	0.0503		mg/L		101	75 - 125
Barium	0.045		0.0500	0.0936		mg/L		96	75 - 125
Cadmium	<0.00034		0.0500	0.0500		mg/L		100	75 - 125
Lead	<0.00035		0.0500	0.0500		mg/L		100	75 - 125
Selenium	<0.00071		0.0500	0.0497		mg/L		99	75 - 125

Lab Sample ID: 180-88346-2 MSD
Matrix: Water
Analysis Batch: 436562

Client Sample ID: ARGWC-8
Prep Type: Total Recoverable
Prep Batch: 436480

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	<0.00011		0.0500	0.0570		mg/L		114	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0499		mg/L		100	75 - 125	1	20
Barium	0.045		0.0500	0.0937		mg/L		97	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0495		mg/L		99	75 - 125	1	20
Lead	<0.00035		0.0500	0.0489		mg/L		98	75 - 125	2	20
Selenium	<0.00071		0.0500	0.0485		mg/L		97	75 - 125	2	20

QC Association Summary

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

Job ID: 180-88346-2
SDG: State Compliance

Metals

Prep Batch: 436480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-1	ARGWC-7	Total Recoverable	Water	3005A	
180-88346-2	ARGWC-8	Total Recoverable	Water	3005A	
180-88346-3	ARGWC-9	Total Recoverable	Water	3005A	
180-88346-4	ARGWC-16	Total Recoverable	Water	3005A	
180-88346-5	ARGWC-17	Total Recoverable	Water	3005A	
180-88346-6	EB-1-3-28-19	Total Recoverable	Water	3005A	
180-88346-7	FB-1-3-27-19	Total Recoverable	Water	3005A	
180-88346-8	DUP-1	Total Recoverable	Water	3005A	
180-88346-9	ARGWA-3	Total Recoverable	Water	3005A	
180-88346-10	ARGWA-5	Total Recoverable	Water	3005A	
180-88346-11	ARGWA-12	Total Recoverable	Water	3005A	
180-88346-12	ARGWA-13	Total Recoverable	Water	3005A	
180-88346-13	ARGWA-14	Total Recoverable	Water	3005A	
180-88346-14	ARGWC-10	Total Recoverable	Water	3005A	
180-88346-15	ARGWC-15	Total Recoverable	Water	3005A	
180-88346-16	ARGWC-18	Total Recoverable	Water	3005A	
MB 400-436480/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-436480/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-88346-2 MS	ARGWC-8	Total Recoverable	Water	3005A	
180-88346-2 MSD	ARGWC-8	Total Recoverable	Water	3005A	

Analysis Batch: 436562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88346-1	ARGWC-7	Total Recoverable	Water	6020	436480
180-88346-2	ARGWC-8	Total Recoverable	Water	6020	436480
180-88346-3	ARGWC-9	Total Recoverable	Water	6020	436480
180-88346-4	ARGWC-16	Total Recoverable	Water	6020	436480
180-88346-5	ARGWC-17	Total Recoverable	Water	6020	436480
180-88346-6	EB-1-3-28-19	Total Recoverable	Water	6020	436480
180-88346-7	FB-1-3-27-19	Total Recoverable	Water	6020	436480
180-88346-8	DUP-1	Total Recoverable	Water	6020	436480
180-88346-9	ARGWA-3	Total Recoverable	Water	6020	436480
180-88346-10	ARGWA-5	Total Recoverable	Water	6020	436480
180-88346-11	ARGWA-12	Total Recoverable	Water	6020	436480
180-88346-12	ARGWA-13	Total Recoverable	Water	6020	436480
180-88346-13	ARGWA-14	Total Recoverable	Water	6020	436480
180-88346-14	ARGWC-10	Total Recoverable	Water	6020	436480
180-88346-15	ARGWC-15	Total Recoverable	Water	6020	436480
180-88346-16	ARGWC-18	Total Recoverable	Water	6020	436480
MB 400-436480/1-A ^5	Method Blank	Total Recoverable	Water	6020	436480
LCS 400-436480/2-A	Lab Control Sample	Total Recoverable	Water	6020	436480
180-88346-2 MS	ARGWC-8	Total Recoverable	Water	6020	436480
180-88346-2 MSD	ARGWC-8	Total Recoverable	Water	6020	436480

Chain of Custody Record

Client Information Client Contact: <u>Joyi Abraham</u> Phone: <u>770-594-5998</u> Company: <u>Southern Company</u> Address: <u>PO BOX 2641 GSC8</u> City: <u>Birmingham</u> State, Zip: <u>AL, 35291</u> PO#: <u>SCS10347656</u> Email: <u>JAbraham@southernco.com</u> Project Name: <u>CCR Plant Arkwright - Ash Pond 3</u> Site: <u>Georgia</u>		Lab PM: <u>Veronica Borlat</u> E-Mail: <u>Veronica.borlat@testamerica.com</u> Carrier Tracking No(s): _____ COC No: <u>400-73521-29028.1</u> Page: _____ Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____ PO#: _____ W/O #: _____ Project #: <u>40007712</u> SSOW#: _____		Analysis Requested State Metals (arsenic, barium, cadmium, lead, silver, and selenium) _____ 300 ORGM, 28D - Chloride, Fluoride & Sulfate, 2540C - TDS _____ Metals - App III _____ Perform MS/MSD (Yes or No) _____ Field Filtered Sample (Yes or No) _____	
Sample Identification Sample Date: _____ Sample Time: _____ Sample Type (C=Comp, G=grab): _____ Matrix (W=water, S=solid, O=wastewater, BT=Trace, A=Air): _____		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) _____	
Sample ID: <u>ARGWC-7</u> <u>ARGWC-8</u> <u>ARGWC-9</u> <u>ARGWC-16</u> <u>ARGWC-17</u> <u>EB-1-3-28-19</u> <u>FB-1-3-27-19</u> <u>Dup-1</u>		Sample Date: <u>3-28-19</u> <u>3-29-19</u> <u>3-28-19</u> <u>3-28-19</u> <u>3-28-19</u> <u>3-28-19</u> <u>3-27-19</u> <u>3-27-19</u>	
Sample Time: <u>1345</u> <u>0757</u> <u>1418</u> <u>1235</u> <u>1135</u> <u>1450</u> <u>1835</u> <u>-</u>		Sample Type: <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u>	
Matrix: <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u>		Total Number of Containers: <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u>	
Special Instructions/Note: <u>APP III plus state metals</u>		Special Instructions/Note: APP III plus state metals	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 year) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____	
Deliverable Requested: I, II, III, IV, Other (specify) _____		Special Instructions/QC Requirements: _____	
Empty Kit Relinquished by: _____		Method of Shipment: _____	
Relinquished by: <u>Priscilla Sanchez</u> Date/Time: <u>3-29-19 11:52am</u>		Received by: <u>[Signature]</u> Date/Time: <u>3-29-19 11:52am</u>	
Relinquished by: <u>[Signature]</u> Date/Time: <u>3-29-19 11:52am</u>		Received by: <u>[Signature]</u> Date/Time: <u>3-29-19 10:00am</u>	
Relinquished by: _____ Date/Time: _____		Received by: _____ Date/Time: _____	
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooler Temperature(s) °C and Other Remarks: _____	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: _____ Email: JAbraham@southernco.com Project Name: CCR Plant Arkwright - Ash Pond 3 Site: Georgia		Lab PM: Veronica Bortot E-Mail: Veronica.bortot@testam.com Phone: 770-544-5998		Carrier Tracking No(s): _____ COC No: 400-73521-29028.1 Page: _____ Job #: _____						
Due Date Requested: _____ TAT Requested (days): _____ PO #: SCS10347656 WO #: _____ Project #: 40007712 SOW#: _____		Analysis Requested								
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals - App III 300 ORGFM, 28D - Chloride, Fluoride & Sulfate, 2540C - TDS	State Metals (arsenic, barium, cadmium, lead, silver, and selenium)	Total Number of Containers	Special Instructions/Note:
	ARGWA-3 ARGWA-5 ARGWA-12 ARGWA-13 ARGWA-14 ARGWC-10 ARGWC-15 ARGWC-18	3-27-19 3-27-19 3-27-19 3-26-19 3-27-19 3-28-19 3-27-19 3-27-19	1108 1306 1730 1614 0906 1202 1731 1826	G G G G G G G	Water Water Water Water Water Water Water Water	N N N N N N N N	N N N N N N N	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	2 2 2 2 2 2 2 2
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsHClO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify)										
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological										
Deliverable Requested: I, II, III, IV, Other (specify) _____										
Empty Kit Relinquished by: _____ Date: _____										
Relinquished by: _____ Date/Time: 3-29-19 / 11:52am Relinquished by: _____ Date/Time: 3-29-19 / 11:52am Relinquished by: _____ Date/Time: _____										
Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____										
Custody Seals Intact: _____ Custody Seal No.: _____										
Cooler Temperature(s) °C and Other Remarks: _____										



estAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA ATLANTA
6500 MCCONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES US

SHIP DATE: 29MAR19
ACT WT: 33.10 LB
CAD: 859116/DAFE3211

BILL RECIPIENT

TO SAMPLE RECEIVING
TA PITTSBURGH
301-ALPHA DRIVE

PITTSBURGH PA 15238

(412) 963-7058
REF: ACC - GP

551C174BR37INDC



SATURDAY 12:00P
PRIORITY OVERNIGHT

15238
PA-US PIT

1 of 2
TRK# 4651 0080 9971
0201
MASTER

XO AGCA

1.4 °C

Uncorrected temp
Thermometer ID

Initials B

CF 0

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



18C-88346 Waybill

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

39-434 R1Z2 EXP 10/19

ORIGIN ID: MULA (678) 966-9991
GEORGE TAYLOR
TEST AMERICA, ATLANTA
6500 MCDONOUGH DRIVE
NORCROSS, GA 30093
UNITED STATES - USA

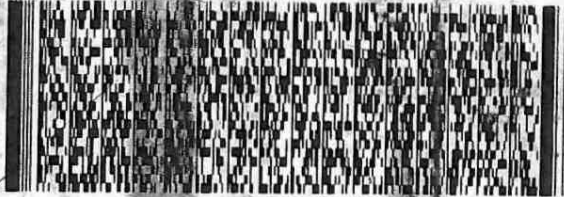
SHIP DATE: 29MAR19
ACTWGT: 53.10 LB
CAD: 859116/CAFE3211

BILL-RECIPIENT

TO **SAMPLE RECEIVING
TA PITTSBURGH
301 ALPHA DRIVE**

PITTSBURGH PA 15238

(412) 983-7068
REF: ACC-GP



FedEx® Saturday Delivery

SDR

151966 10/04 MWI

151966 10/04 MWI

2 of 2
MPS# 4651 0080 9982
0263
Mstr# 4651 0080 9971
0201

**SATURDAY 12:00P
PRIORITY OVERNIGHT**

XO AGCA

15238
PA-US PIT

Uncorrected temp 1.9 °C
Thermometer ID 10

CF 0 Initials B

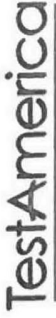
PT-WP-11/8/18

ST 5
RT 639
03.30
9982
12:00
5

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
692554

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Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING



Client Information (Sub Contract Lab)		Sampler: Bortot, Veronica		Lab PM: Bortot, Veronica		COC No: 180-359055.1		Carrier Tracking No(s):	
Client Contact: Shipping/Receiving		Phone:		E-Mail: veronica.bortot@testamericainc.com		State of Origin: Georgia		Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		Address: 3355 McLemore Drive,		City: Pensacola		State, Zip: FL, 32514		Job #: 180-88346-2	
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		Email:		PO #:		WO #:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDA Z - other (specify) Other:	
Project Name: CCR - Plant Arkwright		Project #: 18020201		SSOW#:		Due Date Requested: 4/11/2019		Analysis Requested:	
Site: Georgia Power Site Sampling Data (GW)		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastewater, BT=TISSUE, A=Air)	
ARGWC-7 (180-88346-1)		3/28/19		13:45 Eastern		Water		X	
ARGWC-8 (180-88346-2)		3/28/19		07:57 Eastern		Water		X	
ARGWC-9 (180-88346-3)		3/28/19		14:18 Eastern		Water		X	
ARGWC-16 (180-88346-4)		3/28/19		12:35 Eastern		Water		X	
ARGWC-17 (180-88346-5)		3/28/19		11:35 Eastern		Water		X	
EB-1-3-28-19 (180-88346-6)		3/28/19		14:50 Eastern		Water		X	
FB-1-3-27-19 (180-88346-7)		3/27/19		18:35 Eastern		Water		X	
DUP-1 (180-88346-8)		3/27/19		Eastern		Water		X	
ARGWA-3 (180-88346-9)		3/27/19		11:08 Eastern		Water		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. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysts/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									
Unconfirmed									
Deliverable Requested: I, II, III, IV, Other (specify)									
Primary Deliverable Rank: 2									
Empty Kit Relinquished by:									
Date:									
Time:									
Method of Shipment:									
Special Instructions/QC Requirements:									
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
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:		5.0°C IR8			



Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:				
Client Contact: Shipping/Receiving		Phone:	Bortot, Veronica		180-359055.2				
Company: TestAmerica Laboratories, Inc.		E-Mail:	veronica.bortot@testamericainc.com	State of Origin: Georgia	Page: Page 2 of 2				
Address: 3355 McLemore Drive, Pensacola FL, 32514		Accreditations Required (See note):		Job #:	180-88346-2				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		PO #:	Preservation Codes:						
Email:		WO #:	A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
Project Name: CCR - Plant Arkwright		Project #: 18020201	Analysis Requested						
Site: Georgia Power Site Sampling Data (GW)		SSOW#:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (Specify)						
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefl, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
ARGWA-5 (180-88346-10)	3/27/19	13:06 Eastern	Water	X	602/3005A State Metals As Ba,Cd, Pb,Ag, Se			1	
ARGWA-12 (180-88346-11)	3/27/19	17:30 Eastern	Water	X				1	
ARGWA-13 (180-88346-12)	3/26/19	16:14 Eastern	Water	X				1	
ARGWA-14 (180-88346-13)	3/27/19	09:06 Eastern	Water	X				1	
ARGWC-10 (180-88346-14)	3/28/19	12:02 Eastern	Water	X				1	
ARGWC-15 (180-88346-15)	3/27/19	17:31 Eastern	Water	X				1	
ARGWC-18 (180-88346-16)	3/27/19	18:26 Eastern	Water	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. I

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed	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:	
Primary Deliverable Rank: 2		Method of Shipment:	
Empty Kit Relinquished by:	Date:	Time:	
Relinquished by: <i>[Signature]</i>	4/13/19	1200	
Relinquished by:	Date/Time:	Company:	Received by: <i>Kate R Owen</i>
Relinquished by:	Date/Time:	Company:	Date/Time: 4-11-19 853
Relinquished by:	Date/Time:	Company:	Date/Time:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	





Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:	Lab PM: Bortol, Veronica	Carrier Tracking No(e):	COC No: 180-359055.1				
Client Contact: Shipping/Receiving		Phone:	E-Mail: veronica.bortol@testamericainc.com	State of Origin:	Page: Page 1 of 2				
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #:	180-88346-1				
Address: 3355 McLemore Drive,		Due Date Requested: 4/11/2019		Analysis Requested					
City: Pensacola		TAT Requested (days):		Total Number of Containers					
State, Zip: FL, 32514		PO #:		Preservation Codes:					
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		WO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:					
Project Name: CCR - Plant Arkwright Ash Pond 3		Project #: 18020201		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)					
Site: Georgia Power Site Sampling Data (SW)		SSOW#:		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=BIOTISSUE, A=Air)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	7470A/7470A Prep	6020/3005A (MOD) App III B and Ca	Total Number of Containers
ARGWC-7 (180-88346-1)	3/28/19	13:45 Eastern		Water	X	X	X	X	1
ARGWC-8 (180-88346-2)	3/28/19	07:57 Eastern		Water	X	X	X	X	1
ARGWC-9 (180-88346-3)	3/28/19	14:18 Eastern		Water	X	X	X	X	1
ARGWC-16 (180-88346-4)	3/28/19	12:35 Eastern		Water	X	X	X	X	1
ARGWC-17 (180-88346-5)	3/28/19	11:35 Eastern		Water	X	X	X	X	1
EB-1-3-28-19 (180-88346-6)	3/28/19	14:50 Eastern		Water	X	X	X	X	1
FB-1-3-27-19 (180-88346-7)	3/27/19	18:35 Eastern		Water	X	X	X	X	1
DUP-1 (180-88346-8)	3/27/19	Eastern		Water	X	X	X	X	1
ARGWA-3 (180-88346-9)	3/27/19	11:08 Eastern		Water	X	X	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/test/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

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: *[Signature]* Date/Time: 4/13/19 12:00 Company: *[Signature]* Company: *[Signature]*

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____

Δ Yes Δ No

Special Instructions/QC Requirements: _____

Return To Client Disposal By Lab Archive For _____ Months

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

Received by: *[Signature]* Date/Time: 4-4-19 853 Company: TA

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 5.0°C FR 8



Client Information (Sub Contract Lab)		Sampler:	Lab PMI:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Bortot, Veronica	State of Origin: Georgia	180-359055.2
Company: TestAmerica Laboratories, Inc.		E-Mail: veronica.bortot@testamericainc.com	veronica.bortot@tstamericainc.com	Page 2 of 2	Page 2 of 2
Address: 3355 McLemore Drive, Pensacola FL, 32514		Due Date Requested: 4/11/2019	Job #: 180-88346-1		
City: Slate, Zip: FL, 32514		TAT Requested (days):	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		PO #:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify)		
Email:		WO #:	Total Number of containers		
Project Name: CCR - Plant Arkwright Ash Pond 3		Project #: 18020201	Analysis Requested		
Site: Georgia Power Site Sampling Data (GW)		SSOW#:	Perform MS/MSD (Yes or No)		
			Field Filtered Sample (Yes or No)		
			6020/3005A (MOD) App III B and Ca		
			7470A/7470A_Prep		
			Special Instructions/Note:		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-wastewater, BT=Tissue, A=Air)
ARGWA-5 (180-88346-10)	3/27/19	13:06 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWA-12 (180-88346-11)	3/27/19	17:30 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWA-13 (180-88346-12)	3/26/19	16:14 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWA-14 (180-88346-13)	3/27/19	09:06 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWC-10 (180-88346-14)	3/28/19	12:02 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWC-15 (180-88346-15)	3/27/19	17:31 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
ARGWC-18 (180-88346-16)	3/27/19	18:26 Eastern	Water	X	AppIII metals B and Ca in job 1 ; state metals in job 2 ;
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.					
Possible Hazard Identification					
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2					
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____					
Relinquished by: <i>[Signature]</i> Date/Time: 4/3/19 1200 Company: <i>[Signature]</i>					
Relinquished by: _____ Date/Time: _____ Company: _____					
Relinquished by: _____ Date/Time: _____ Company: _____					
Custody Seals Intact: _____ Cooler Temperature(s) °C and Other Remarks: _____					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____					
Received by: <i>Kathy R Owen</i> Date/Time: 4-4-19 853 Company: TA Received by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____					



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88346-2
SDG Number: State Compliance

Login Number: 88346
List Number: 1
Creator: Kovitch, Christina M

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88346-2
SDG Number: State Compliance

Login Number: 88346
List Number: 2
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola
List Creation: 04/04/19 05:26 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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0°C IR 8
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	



Product Name: Low-Flow System

Date: 2019-03-27 09:11:52

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 42.29 ft

Pump placement from TOC 37.29 ft

Well Information:

Well ID ARGWA-3
Well diameter 2 in
Well Total Depth 42.29 ft
Screen Length 10 ft
Depth to Water 34.95 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5787582 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 14.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:48:33	2700.95	18.73	6.08	71.41	6.78	35.13	6.33	60.54
Last 5	08:53:33	3000.94	18.78	6.09	71.72	5.51	35.14	6.32	60.21
Last 5	08:58:33	3300.93	18.73	6.09	72.27	4.48	35.12	6.29	60.19
Last 5	09:03:33	3600.93	18.82	6.10	72.17	4.07	35.14	6.26	60.21
Last 5	09:08:33	3900.92	18.81	6.10	72.34	3.95	35.15	6.25	60.31
Variance 0			-0.05	0.01	0.55			-0.03	-0.02
Variance 1			0.09	0.01	-0.09			-0.03	0.02
Variance 2			-0.00	0.00	0.17			-0.01	0.10

Notes

Sampled at 3/27/19 1108am clear 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 11:11:18

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 33 ft

Pump placement from TOC 28 ft

Well Information:

Well ID ARGWA-5
Well diameter 2 in
Well Total Depth 33.11 ft
Screen Length 10 ft
Depth to Water 22.71 ft

Pumping Information:

Final Pumping Rate 280 mL/min
Total System Volume 0.537293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:46:48	900.00	18.33	5.98	69.67	1.79	22.80	5.98	59.40
Last 5	10:51:48	1199.99	18.32	5.97	70.81	1.69	22.80	5.95	60.91
Last 5	10:56:48	1499.98	18.35	5.97	71.58	1.17	22.80	5.80	65.77
Last 5	11:01:48	1799.97	18.36	5.98	72.38	1.17	22.80	5.78	60.73
Last 5	11:06:48	2099.96	18.39	5.97	72.73	1.50	22.80	5.81	61.74
Variance 0			0.03	-0.00	0.77			-0.15	4.86
Variance 1			0.01	0.01	0.80			-0.02	-5.05
Variance 2			0.03	-0.01	0.34			0.04	1.01

Notes

Sampled ARGWA-5 at 1306 3/27/19. Sunny, clear skies 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 15:32:04

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 32.35 ft

Pump placement from TOC 27.35 ft

Well Information:

Well ID ARGWA-12
Well diameter 2 in
Well Total Depth 32.35 ft
Screen Length 10 ft
Depth to Water 15.3 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7022659 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 38 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:06:22	8424.80	17.73	6.00	156.56	5.60	16.00	2.41	55.84
Last 5	15:11:37	8739.79	17.75	6.00	156.84	5.40	16.00	2.40	55.92
Last 5	15:16:37	9039.78	17.68	6.00	156.66	5.20	16.00	2.40	55.95
Last 5	15:21:44	9346.78	17.67	6.00	157.32	5.00	16.00	2.40	56.03
Last 5	15:26:44	9646.77	17.75	6.00	156.47	4.90	16.00	2.53	56.13
Variance 0			-0.07	-0.00	-0.18			-0.00	0.03
Variance 1			-0.01	-0.00	0.66			-0.00	0.08
Variance 2			0.08	0.00	-0.85			0.14	0.09

Notes

Sampled on 3-27-19 at 17:30. Sunny, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 14:16:50

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWA-13
Well diameter 2 in
Well Total Depth 43.25 ft
Screen Length 10 ft
Depth to Water 22.52 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8050674 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.5 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:54:13	600.00	17.47	5.98	927.97	5.02	22.90	2.88	65.14
Last 5	13:59:13	900.00	17.44	5.97	930.30	4.74	22.90	2.84	65.61
Last 5	14:04:13	1199.99	17.43	5.97	948.96	2.49	22.90	2.76	66.31
Last 5	14:09:13	1499.98	17.44	5.96	964.54	1.86	22.90	2.85	66.94
Last 5	14:14:13	1799.97	17.44	5.96	948.73	1.67	22.90	2.78	67.44
Variance 0			-0.01	-0.01	18.66			-0.08	0.70
Variance 1			0.01	-0.00	15.58			0.09	0.63
Variance 2			-0.00	0.00	-15.81			-0.07	0.50

Notes

Sampled at 16:14 3/26/19. Cloudy, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 13:19:09

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 43.37 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 0.9498584 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 82 in
Total Volume Pumped 5.45 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:54:30	4524.90	18.24	6.77	290.68	0.75	48.90	3.83	43.44
Last 5	12:59:30	4824.90	18.15	6.78	289.70	0.77	49.30	3.76	43.02
Last 5	13:04:30	5124.89	18.06	6.81	316.56	1.81	49.50	3.78	42.78
Last 5	13:09:30	5424.88	17.97	6.82	337.31	3.13	49.80	3.68	42.30
Last 5	13:14:34	5728.87	17.93	6.85	375.68	3.97	50.30	3.64	42.29
Variance 0			-0.09	0.03	26.86			0.02	-0.24
Variance 1			-0.08	0.01	20.75			-0.10	-0.48
Variance 2			-0.05	0.03	38.37			-0.04	-0.01

Notes

Purged dry. Did not sample.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 07:09:37

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 58 ft

Pump placement from TOC 53 ft

Well Information:

Well ID ARGWA-14
Well diameter 2 in
Well Total Depth 58.18 ft
Screen Length 10 ft
Depth to Water 46.15 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 0.9498584 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 0.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:06:30	300.08	9.30	6.83	464.42	1.44	46.40	5.57	159.93
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Well purged dry 3/26/19 well not sampled. Well sampled 3/27/19 0906. Clear sunny skies, 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 13:45:51

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name CCR Plant Arkwright AP3
Site Name Plant Arkwright- Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354293
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type Poly
Tubing Diameter 0.25 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID ARGWC-7
Well diameter 2 in
Well Total Depth 48.32 ft
Screen Length 10 ft
Depth to Water 22.7 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.39 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:25:16	600.13	19.94	5.87	175.13	3.50	23.00	4.46	146.22
Last 5	13:30:16	900.13	20.03	5.87	175.42	4.30	23.00	4.49	141.98
Last 5	13:35:16	1200.13	20.07	5.86	175.09	3.60	23.00	4.41	140.03
Last 5	13:40:16	1500.13	20.17	5.86	175.51	3.50	23.00	4.36	138.16
Last 5	13:45:16	1800.13	20.16	5.85	175.57	2.80	23.00	4.31	137.71
Variance 0			0.05	-0.01	-0.34			-0.08	-1.95
Variance 1			0.10	-0.00	0.42			-0.05	-1.88
Variance 2			-0.01	-0.00	0.06			-0.04	-0.45

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-29 05:58:49

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID ARGWC-8
Well diameter 2 in
Well Total Depth 43.22 ft
Screen Length 10 ft
Depth to Water 24.40 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.8050674 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	05:37:35	600.01	16.54	6.56	485.51	1.63	24.60	0.40	50.27
Last 5	05:42:35	900.00	16.65	6.55	485.81	1.51	24.60	0.38	45.84
Last 5	05:47:35	1199.99	16.72	6.55	485.88	1.62	24.60	0.33	43.24
Last 5	05:52:35	1499.98	16.81	6.55	485.45	1.15	24.60	0.31	42.29
Last 5	05:57:35	1799.98	16.76	6.55	476.93	1.30	246.00	0.31	41.25
Variance 0			0.07	-0.00	0.07			-0.04	-2.60
Variance 1			0.09	-0.00	-0.42			-0.02	-0.95
Variance 2			-0.05	-0.00	-8.52			-0.00	-1.04

Notes

Sampled at 07:57 on 3-29-19. Clear, 40's.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 12:23:52

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 38.07 ft

Pump placement from TOC 33.07 ft

Well Information:

Well ID ARGWC-9
Well diameter 2 in
Well Total Depth 38.07 ft
Screen Length 10 ft
Depth to Water 19.47 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7574795 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:58:06	4802.90	19.31	5.97	83.16	5.60	19.60	5.47	82.45
Last 5	12:03:06	5102.89	19.39	5.97	83.14	6.10	19.60	5.46	82.68
Last 5	12:08:06	5402.88	19.36	5.97	83.08	6.10	19.60	5.44	82.63
Last 5	12:13:06	5702.88	19.41	5.97	83.04	6.30	19.60	5.44	82.65
Last 5	12:18:06	6002.87	19.43	5.97	83.37	4.90	19.60	5.43	82.75
Variance 0			-0.02	-0.00	-0.06			-0.03	-0.04
Variance 1			0.05	0.00	-0.04			-0.00	0.02
Variance 2			0.02	0.00	0.34			-0.01	0.10

Notes

Collected sample at 14:18 on 3/28/19. Clear, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 10:07:10

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 38.35 ft

Pump placement from TOC 33.35 ft

Well Information:

Well ID ARGWC-10
Well diameter 2 in
Well Total Depth 38.35 ft
Screen Length 10 ft
Depth to Water 20.15 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.7601823 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.2 in
Total Volume Pumped 42 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:42:31	9627.77	19.29	6.08	88.43	13.40	20.40	3.57	77.10
Last 5	09:47:31	9927.76	19.22	6.09	87.76	10.20	20.40	3.60	78.52
Last 5	09:52:31	10227.75	19.13	6.05	88.51	9.80	20.40	3.53	77.26
Last 5	09:57:32	10528.75	19.09	6.05	89.75	7.10	20.40	3.52	77.28
Last 5	10:02:32	10828.74	19.09	6.05	91.70	8.80	20.40	3.51	77.48
Variance 0			-0.09	-0.04	0.75			-0.07	-1.25
Variance 1			-0.04	0.00	1.24			-0.01	0.02
Variance 2			0.00	0.00	1.95			-0.01	0.20

Notes

ARGWC-10 sampled at 1202 3-28-19 clear skies 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 17:31:45

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name CCR Plant Arkwright AP3
Site Name Plant Arkwright- Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354293
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type Poly
Tubing Diameter 0.25 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID ARGWC-15
Well diameter 2 in
Well Total Depth 42.35 ft
Screen Length 10 ft
Depth to Water 29.00 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 0.39 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15 in
Total Volume Pumped 3.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	17:11:13	1500.02	17.95	6.70	278.31	3.30	29.99	1.35	113.61
Last 5	17:16:13	1800.73	18.10	6.67	272.20	2.40	30.10	1.25	113.90
Last 5	17:21:13	2100.73	17.99	6.64	266.20	2.00	30.21	1.30	115.82
Last 5	17:26:13	2400.72	18.07	6.62	261.03	3.10	30.30	1.33	118.36
Last 5	17:31:13	2700.72	18.15	6.60	257.57	2.30	30.39	1.36	119.39
Variance 0			-0.11	-0.03	-6.00			0.05	1.92
Variance 1			0.07	-0.02	-5.17			0.03	2.55
Variance 2			0.09	-0.02	-3.46			0.03	1.03

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 12:36:57

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name CCR Plant Arkwright AP3
Site Name Plant Arkwright- Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354293
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type Poly
Tubing Diameter 0.25 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID ARGWC-16
Well diameter 2 in
Well Total Depth 34.52 ft
Screen Length 10 ft
Depth to Water 20.57 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.39 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:15:47	900.02	19.39	5.31	524.89	5.60	20.60	0.81	148.70
Last 5	12:20:47	1200.02	19.36	5.31	525.61	3.90	20.60	0.76	152.09
Last 5	12:25:47	1500.02	19.40	5.31	525.75	3.80	20.60	0.74	153.36
Last 5	12:30:47	1800.02	19.45	5.31	525.66	1.80	20.60	0.73	151.26
Last 5	12:35:47	2100.02	19.49	5.31	527.59	1.60	20.60	0.72	152.84
Variance 0			0.04	-0.00	0.15			-0.02	1.28
Variance 1			0.05	-0.00	-0.10			-0.01	-2.11
Variance 2			0.04	-0.00	1.94			-0.01	1.59

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 11:35:48

Project Information:

Operator Name Taylor Goble
Company Name ACC
Project Name CCR Plant Arkwright AP3
Site Name Plant Arkwright- Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 354293
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type Poly
Tubing Diameter 0.25 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID ARGWC-17
Well diameter 2 in
Well Total Depth 33.92 ft
Screen Length 10 ft
Depth to Water 22.15 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.39 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:15:25	9004.02	17.21	5.36	179.38	1.70	22.47	3.04	134.65
Last 5	11:20:25	9304.02	17.16	5.36	179.69	1.60	22.47	5.14	133.24
Last 5	11:25:27	9605.91	17.26	5.36	179.70	1.80	22.47	6.31	133.83
Last 5	11:30:27	9905.91	17.35	5.36	180.34	2.50	22.47	6.09	132.11
Last 5	11:35:27	10205.91	17.30	5.36	179.88	2.20	22.47	6.03	128.43
Variance 0			0.10	0.00	0.01			1.16	0.58
Variance 1			0.09	0.00	0.64			-0.21	-1.72
Variance 2			-0.04	-0.01	-0.46			-0.06	-3.68

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 16:28:41

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name CCR - Plant Arkwright AP3
Site Name Plant Arkwright - Ash Pond 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 50.65 ft

Pump placement from TOC 45.65 ft

Well Information:

Well ID ARGWC-18
Well diameter 2 in
Well Total Depth 50.65 ft
Screen Length 10 ft
Depth to Water 26.93 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.8789109 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	16:06:27	600.00	19.98	6.06	572.78	4.10	27.30	0.20	7.97
Last 5	16:11:27	900.00	19.92	6.06	574.19	3.80	27.20	0.20	6.09
Last 5	16:16:27	1199.99	19.84	6.06	574.29	3.70	27.30	0.20	5.16
Last 5	16:21:28	1500.98	19.67	6.06	574.68	3.80	27.20	0.20	4.63
Last 5	16:26:28	1800.97	19.44	6.06	577.40	3.90	27.20	0.21	4.50
Variance 0			-0.08	0.00	0.11			0.00	-0.93
Variance 1			-0.18	0.00	0.39			-0.00	-0.52
Variance 2			-0.23	0.00	2.72			0.00	-0.13

Notes

Sampled at 18:26 on 3-27-19. Clear, 60's. FB-1 here

Grab Samples

APPENDIX B

Statistical Analyses

100% ND

Date: 8/15/2019 5:36 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Cadmium (mg/L)

ARGWA-13, ARGWC-10, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Lead (mg/L)

ARGWA-13, ARGWC-10, ARGWC-16, ARGWC-17, ARGWC-8, ARGWC-9

Silver (mg/L)

ARGWA-14, ARGWC-8

Interwell Prediction Limit Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 7/15/2019, 2:32 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWC-18	0.34	n/a	3/27/2019	2.3	Yes	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-8	0.34	n/a	3/28/2019	1.3	Yes	45	40	n/a	0.0009262	NP (normality) 1 of 2
pH (SU)	ARGWC-16	6.92	5.58	3/28/2019	5.31	Yes	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-17	6.92	5.58	3/28/2019	5.36	Yes	42	0	n/a	0.002083	NP (normality) 1 of 2

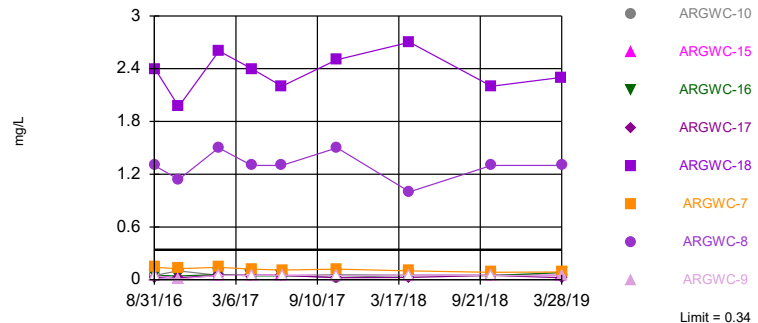
Interwell Prediction Limit All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 7/15/2019, 2:32 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWC-10	0.34	n/a	3/28/2019	0.05ND	No	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-15	0.34	n/a	3/27/2019	0.05ND	No	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-16	0.34	n/a	3/28/2019	0.08	No	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-17	0.34	n/a	3/28/2019	0.022	No	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-18	0.34	n/a	3/27/2019	2.3	Yes	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-7	0.34	n/a	3/28/2019	0.087	No	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-8	0.34	n/a	3/28/2019	1.3	Yes	45	40	n/a	0.0009262	NP (normality) 1 of 2
Boron (mg/L)	ARGWC-9	0.34	n/a	3/28/2019	0.044	No	45	40	n/a	0.0009262	NP (normality) 1 of 2
pH (SU)	ARGWC-10	6.92	5.58	3/28/2019	6.05	No	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-15	6.92	5.58	3/27/2019	6.6	No	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-16	6.92	5.58	3/28/2019	5.31	Yes	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-17	6.92	5.58	3/28/2019	5.36	Yes	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-18	6.92	5.58	3/27/2019	6.06	No	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-7	6.92	5.58	3/28/2019	5.85	No	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-8	6.92	5.58	3/29/2019	6.55	No	42	0	n/a	0.002083	NP (normality) 1 of 2
pH (SU)	ARGWC-9	6.92	5.58	3/28/2019	5.97	No	42	0	n/a	0.002083	NP (normality) 1 of 2

Exceeds Limit: ARGWC-18, ARGWC-8

Prediction Limit
 Interwell Non-parametric

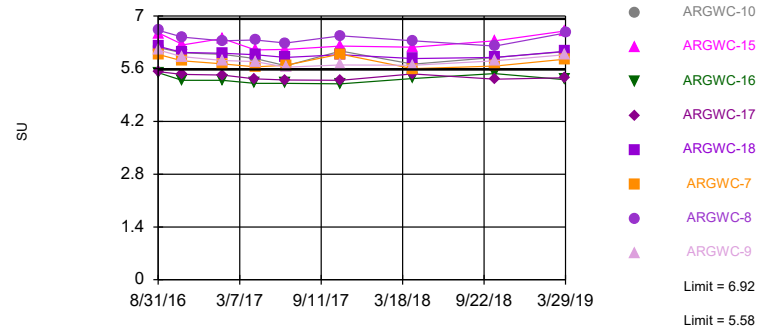


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 45 background values. 40% NDs. Annual per-constituent alpha = 0.01472. Individual comparison alpha = 0.0009262 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 7/15/2019 2:29 PM View: CCR Interwell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Exceeds Limits: ARGWC-16, ARGWC-17

Prediction Limit
 Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 42 background values. Annual per-constituent alpha = 0.03306. Individual comparison alpha = 0.002083 (1 of 2). Comparing 8 points to limit.

Constituent: pH Analysis Run 7/15/2019 2:29 PM View: CCR Interwell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/15/2019 2:32 PM View: CCR Interwell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)	ARGWC-8	ARGWC-17
8/30/2016	0.032 (J)	<0.05							
8/31/2016			<0.05	0.14	<0.05	0.04 (J)	0.1	1.3	
9/1/2016									0.022 (J)
9/2/2016									
10/24/2016	0.0406 (J)								
10/25/2016		0.0073 (J)	0.0068 (J)	0.126	0.0071 (J)	0.065 (J)	0.204		0.0219 (J)
10/26/2016								1.14	
1/23/2017	0.023 (J)					0.031 (J)			
1/24/2017		<0.05	<0.05				0.064		
1/26/2017				0.14	<0.05			1.5	<0.05
1/27/2017									
4/11/2017	0.025 (J)	<0.05	<0.05			0.043 (J)	0.081		<0.05
4/12/2017				0.12	<0.05			1.3	
6/20/2017		<0.05	<0.05			0.029 (J)			
6/21/2017	<0.05						0.13	1.3	<0.05
6/22/2017				0.11	<0.05				
10/25/2017	0.028 (J)	<0.05	<0.05	0.12	<0.05	0.041 (J)	0.17		
10/26/2017								1.5	0.023 (J)
4/9/2018						0.04 (J)	0.059		
4/10/2018	0.027 (J)	<0.05	<0.05	0.1					0.026 (J)
4/11/2018					<0.05			1	
10/16/2018	0.023 (J)	<0.05	<0.05			0.046 (J)	0.34		
10/17/2018				0.084	<0.05			1.3	<0.05
3/26/2019							0.32		
3/27/2019	<0.05	<0.05	<0.05			0.032 (J)			
3/28/2019				0.087	0.044 (J)			1.3	0.022 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/15/2019 2:32 PM View: CCR Interwell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	<0.05	2.4	0.049 (J)	
9/2/2016				<0.05
10/24/2016				
10/25/2016	<0.1		0.042 (J)	
10/26/2016		1.97		0.0138 (J)
1/23/2017				
1/24/2017				
1/26/2017			0.059	<0.05
1/27/2017	<0.05	2.6		
4/11/2017			0.045 (J)	
4/12/2017	<0.05	2.4		<0.05
6/20/2017				
6/21/2017		2.2	0.045 (J)	<0.05
6/22/2017	<0.05			
10/25/2017		2.5		
10/26/2017	0.026 (J)		0.054	<0.05
4/9/2018				
4/10/2018			0.048 (J)	<0.05
4/11/2018	<0.05	2.7		
10/16/2018			0.048 (J)	
10/17/2018	<0.05	2.2		<0.05
3/26/2019				
3/27/2019		2.3		<0.05
3/28/2019	<0.05		0.08	

Prediction Limit

Constituent: pH (SU) Analysis Run 7/15/2019 2:32 PM View: CCR Interwell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWC-9	ARGWA-3 (bg)	ARGWC-10	ARGWC-7	ARGWC-8	ARGWC-17	ARGWC-18	ARGWC-16
8/30/2016	6.07								
8/31/2016		6.1	6.09	6.16	5.98	6.62			
9/1/2016							5.52	6.19	5.49
9/2/2016									
10/24/2016									
10/25/2016	5.96	5.92	5.92	6.02	5.81		5.45		5.29
10/26/2016						6.44		6.03	
1/23/2017									
1/24/2017	5.89		5.98						
1/26/2017		5.82			5.73	6.34	5.43		5.29
1/27/2017				5.98				6.01	
4/11/2017	5.78		5.82				5.33		5.21
4/12/2017		5.79		5.87	5.65	6.36		5.97	
6/20/2017	5.69		5.8						
6/21/2017						6.28	5.3	5.9	5.21
6/22/2017		5.64		5.68	5.69				
10/25/2017	6.11	5.7	5.89		5.99			5.97	
10/26/2017				6.07		6.47	5.29		5.2
4/9/2018									
4/10/2018	5.58		5.85		5.6		5.46		5.34
4/11/2018		5.69		5.72		6.34		5.87	
10/16/2018	5.86		6.03						5.47
10/17/2018		5.81		5.9	5.67	6.2	5.32	5.9	
3/26/2019									
3/27/2019	5.97		6.1					6.06	
3/28/2019		5.97		6.05	5.85		5.36		5.31
3/29/2019						6.55			

Prediction Limit

Constituent: pH (SU) Analysis Run 7/15/2019 2:32 PM View: CCR Interwell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				
8/31/2016				
9/1/2016				
9/2/2016	6.54			
10/24/2016		5.99		
10/25/2016	6.25		5.8	6.92
10/26/2016	6.23			
1/23/2017		5.94		6.76
1/24/2017			5.82	
1/26/2017	6.4			
1/27/2017				
4/11/2017		5.88	5.78	6.72
4/12/2017	6.1			
6/20/2017				6.66
6/21/2017	6.11	5.73	5.67	
6/22/2017				
10/25/2017		6.13	5.72	6.77
10/26/2017	6.2			
4/9/2018			5.78	6.6
4/10/2018	6.17	5.95		
4/11/2018				
10/16/2018		5.94	5.74	6.63
10/17/2018	6.34			
3/26/2019			5.96	
3/27/2019	6.6	6		6.83
3/28/2019				
3/29/2019				

Intrawell Prediction Limit Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	ARGWC-15	26.64	3/27/2019	28	Yes	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-16	32.45	3/28/2019	41	Yes	8	0	No	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWC-16	183.1	3/28/2019	220	Yes	23	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-16	340.8	3/28/2019	370	Yes	8	0	No	0.0009403	Param 1 of 3

Intrawell Prediction Limit All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:28 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	ARGWA-12	13.8	3/27/2019	11	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWA-13	166.5	3/26/2019	95	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWA-14	43.76	3/27/2019	42	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWA-3	6.585	3/27/2019	5.4	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWA-5	6.245	3/27/2019	4.5	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-10	8.36	3/28/2019	7.3	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-15	26.64	3/27/2019	28	Yes	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-16	32.45	3/28/2019	41	Yes	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-17	21.5	3/28/2019	10	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-18	52.54	3/27/2019	47	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-7	13.63	3/28/2019	11	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-8	57.53	3/28/2019	52	No	8	0	No	0.0009403	Param 1 of 3
Calcium (mg/L)	ARGWC-9	6.619	3/28/2019	5.6	No	8	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWA-12	11.83	3/27/2019	11	No	23	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWA-13	6.644	3/26/2019	4.6	No	23	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWA-14	12.13	3/27/2019	4	No	10	0	sqrt(x)	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWA-3	3.549	3/27/2019	2.5	No	42	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWA-5	4.939	3/27/2019	4.3	No	44	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-10	4.275	3/28/2019	3.7	No	23	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-15	3.31	3/27/2019	1.8	No	22	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-16	5.206	3/28/2019	4.6	No	23	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-17	6.28	3/28/2019	3.4	No	23	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-18	9.158	3/27/2019	6.6	No	22	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-7	7.646	3/28/2019	5.1	No	28	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-8	6.425	3/28/2019	5.7	No	21	0	No	0.0009403	Param 1 of 3
Chloride (mg/L)	ARGWC-9	6.4	3/28/2019	4.8	No	23	0	n/a	0.0004078	NP (normality) 1 of 3
Fluoride (mg/L)	ARGWA-12	0.2	3/27/2019	0.031	No	8	75	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWA-13	0.2	3/26/2019	0.2ND	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWA-14	0.5638	3/27/2019	0.15	No	8	0	No	0.0009403	Param 1 of 3
Fluoride (mg/L)	ARGWA-3	0.2	3/27/2019	0.034	No	8	75	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWA-5	0.2	3/27/2019	0.026	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWC-10	0.2	3/28/2019	0.03	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWC-15	0.2035	3/27/2019	0.05	No	8	50	x^6	0.0009403	Param 1 of 3
Fluoride (mg/L)	ARGWC-16	0.2	3/28/2019	0.2ND	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWC-17	0.2	3/28/2019	0.2ND	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWC-18	0.114	3/27/2019	0.05	No	7	0	No	0.0009403	Param 1 of 3
Fluoride (mg/L)	ARGWC-7	0.2	3/28/2019	0.2ND	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Fluoride (mg/L)	ARGWC-8	0.1681	3/28/2019	0.089	No	7	0	No	0.0009403	Param 1 of 3
Fluoride (mg/L)	ARGWC-9	0.2	3/28/2019	0.2ND	No	8	87.5	n/a	0.005912	NP (NDs) 1 of 3
Sulfate (mg/L)	ARGWA-12	12.96	3/27/2019	9.1	No	23	0	No	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWA-13	642.6	3/26/2019	430	No	12	0	No	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWA-14	89.45	3/27/2019	15	No	11	0	sqrt(x)	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWA-3	5.56	3/27/2019	0.38	No	44	34.09	n/a	0.0006567	NP (normality) 1 of 3
Sulfate (mg/L)	ARGWA-5	2	3/27/2019	0.55	No	45	28.89	n/a	0.00006184	NP (normality) 1 of 3
Sulfate (mg/L)	ARGWC-10	0.544	3/28/2019	0.38	No	21	47.62	n/a	0.000511	NP (normality) 1 of 3
Sulfate (mg/L)	ARGWC-15	14.11	3/27/2019	7.2	No	23	0	sqrt(x)	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWC-16	183.1	3/28/2019	220	Yes	23	0	No	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWC-17	175.3	3/28/2019	59	No	21	0	No	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWC-18	201	3/27/2019	190	No	23	0	n/a	0.0004078	NP (normality) 1 of 3
Sulfate (mg/L)	ARGWC-7	141.3	3/28/2019	45	No	30	0	No	0.0009403	Param 1 of 3

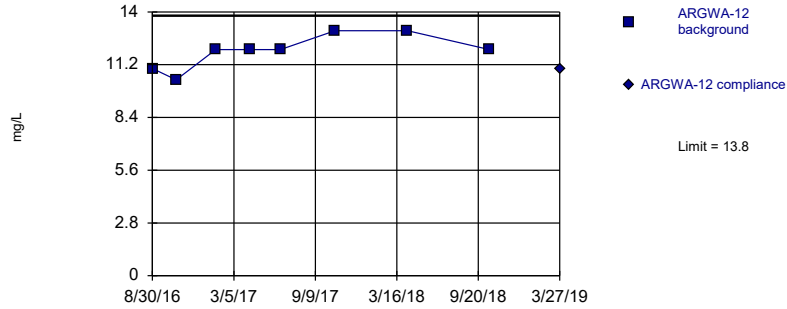
Intrawell Prediction Limit All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	ARGWC-8	111.7	3/28/2019	66	No	23	0	No	0.0009403	Param 1 of 3
Sulfate (mg/L)	ARGWC-9	1.187	3/28/2019	1	No	22	9.091	x^2	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWA-12	203.8	3/27/2019	110	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWA-13	1394	3/26/2019	750	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWA-14	530.5	3/27/2019	330	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWA-3	92.44	3/27/2019	69	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWA-5	119.9	3/27/2019	61	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-10	142.4	3/28/2019	82	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-15	179.5	3/27/2019	150	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-16	340.8	3/28/2019	370	Yes	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-17	224	3/28/2019	120	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-18	494	3/27/2019	430	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-7	190.5	3/28/2019	130	No	8	0	No	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-8	364.9	3/28/2019	290	No	8	0	x^2	0.0009403	Param 1 of 3
Total Dissolved Solids (mg/L)	ARGWC-9	118.2	3/28/2019	77	No	8	0	No	0.0009403	Param 1 of 3

Within Limit

Prediction Limit
Intrawell Parametric

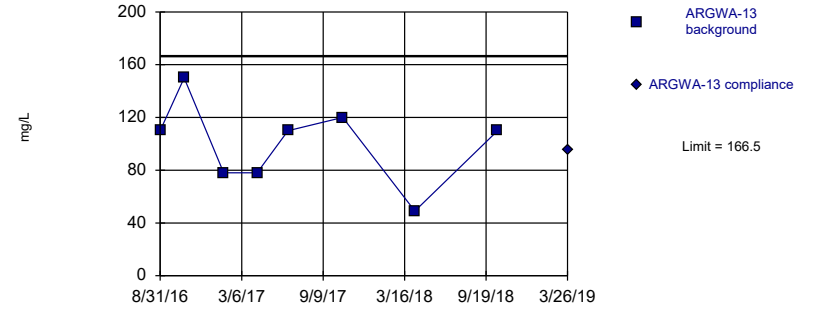


Background Data Summary: Mean=11.93, Std. Dev.=0.8876, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8827, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

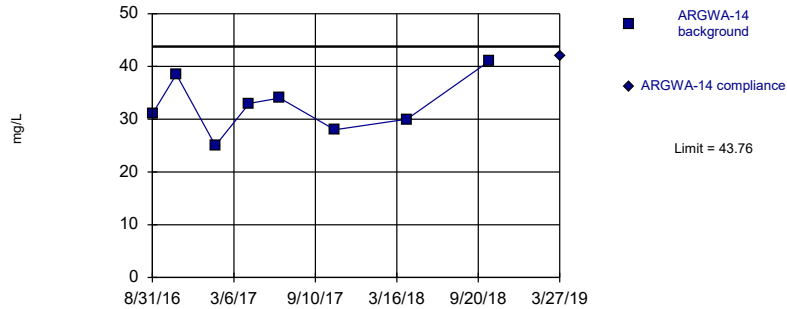


Background Data Summary: Mean=100.6, Std. Dev.=31.09, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

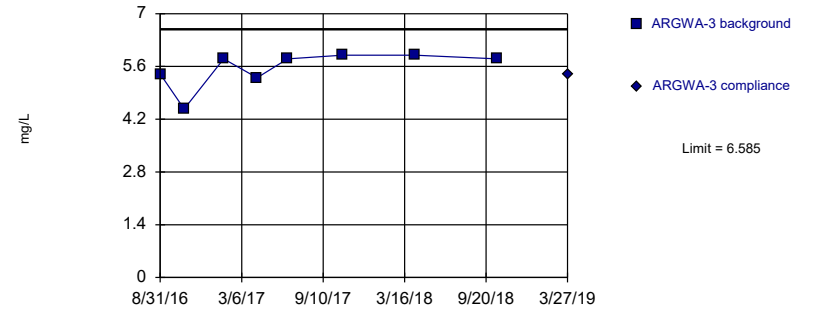


Background Data Summary: Mean=32.56, Std. Dev.=5.288, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9751, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

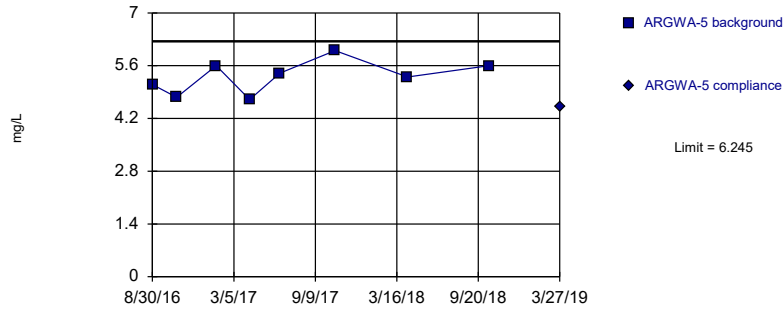


Background Data Summary: Mean=5.546, Std. Dev.=0.4904, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7516, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Parametric

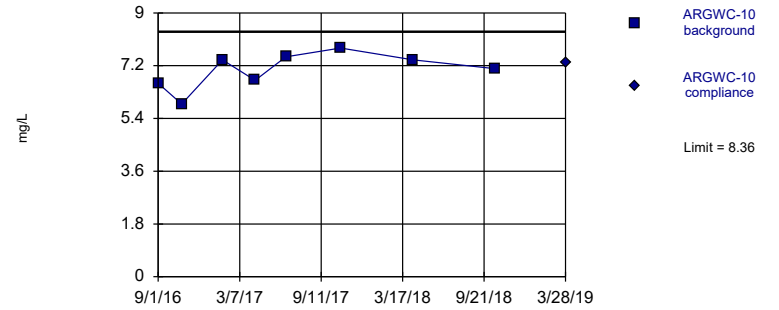


Background Data Summary: Mean=5.308, Std. Dev.=0.4426, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9566, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

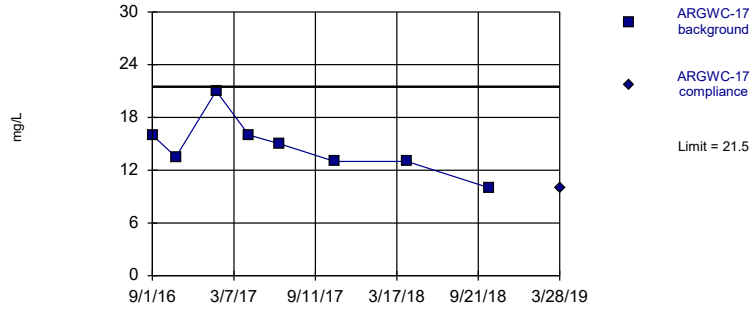
Within Limit

Prediction Limit Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

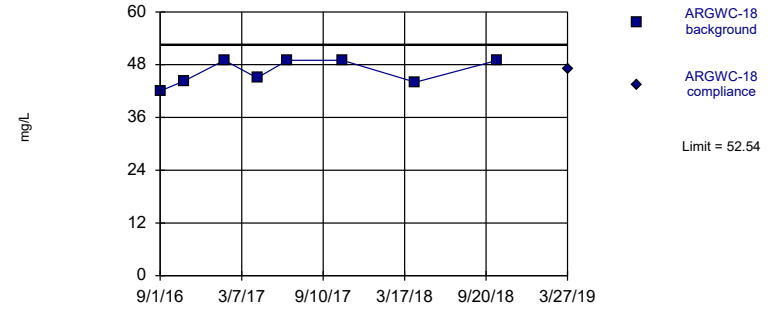


Background Data Summary: Mean=14.69, Std. Dev.=3.218, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9309, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

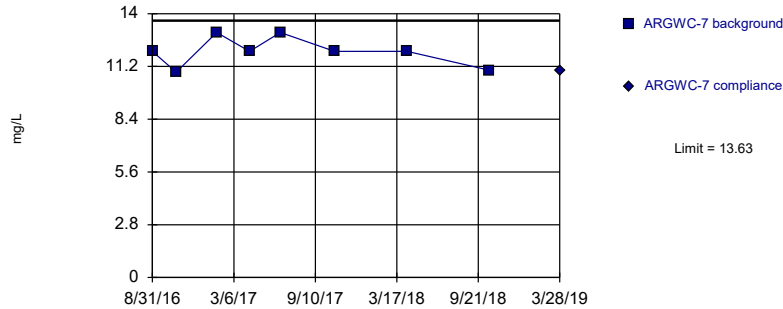


Background Data Summary: Mean=46.41, Std. Dev.=2.892, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8045, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

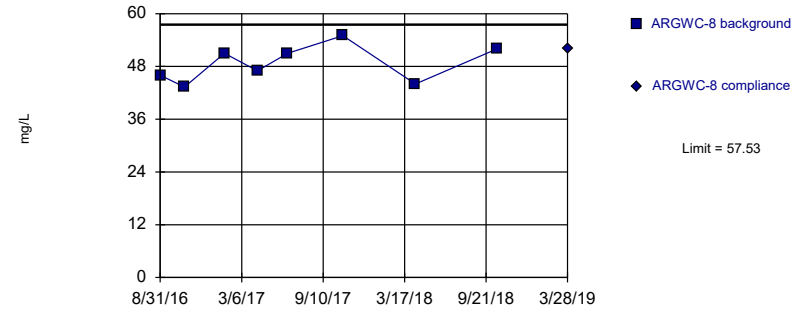


Background Data Summary: Mean=11.99, Std. Dev.=0.7754, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8611, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

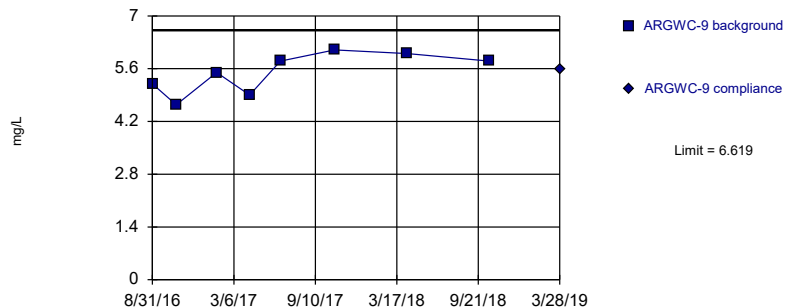


Background Data Summary: Mean=48.66, Std. Dev.=4.185, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9354, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

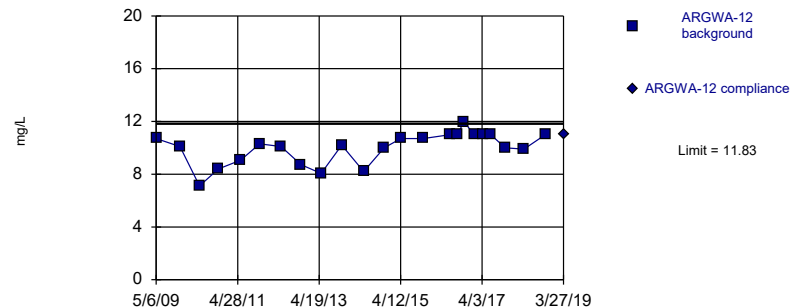


Background Data Summary: Mean=5.493, Std. Dev.=0.5317, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Calcium Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

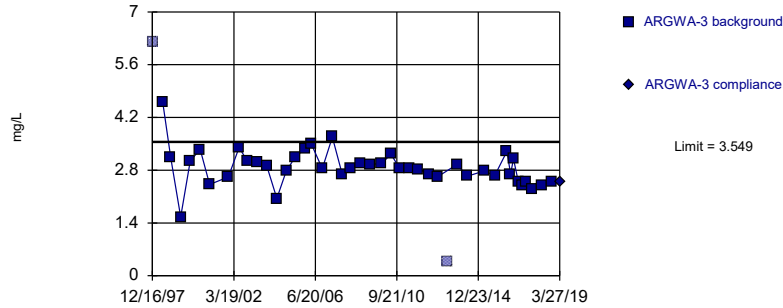
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

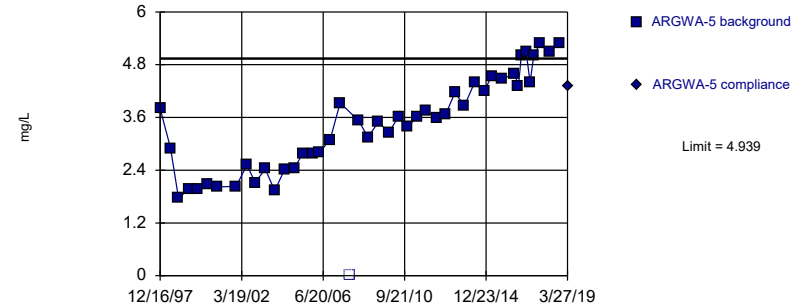


Background Data Summary: Mean=2.875, Std. Dev.=0.4824, n=42. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9494, critical = 0.922. Kappa = 1.398 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

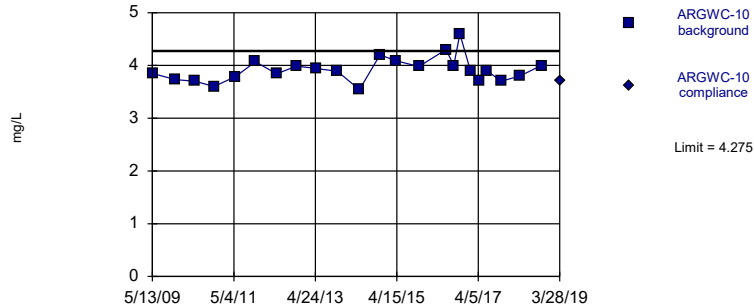


Background Data Summary: Mean=3.467, Std. Dev.=1.057, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9398, critical = 0.924. Kappa = 1.393 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

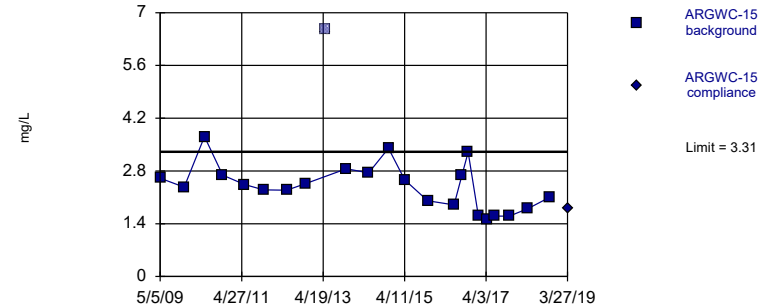


Background Data Summary: Mean=3.918, Std. Dev.=0.2365, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9393, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

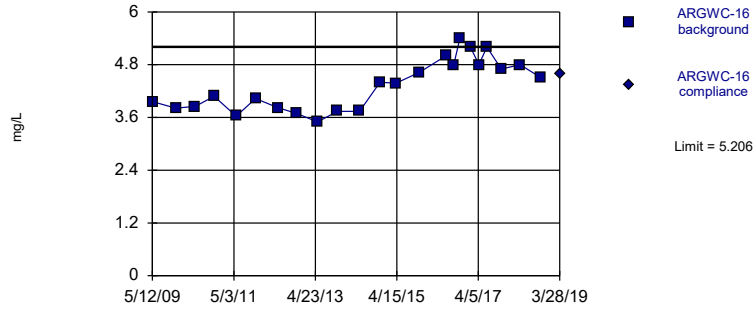


Background Data Summary: Mean=2.389, Std. Dev.=0.606, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9576, critical = 0.878. Kappa = 1.52 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

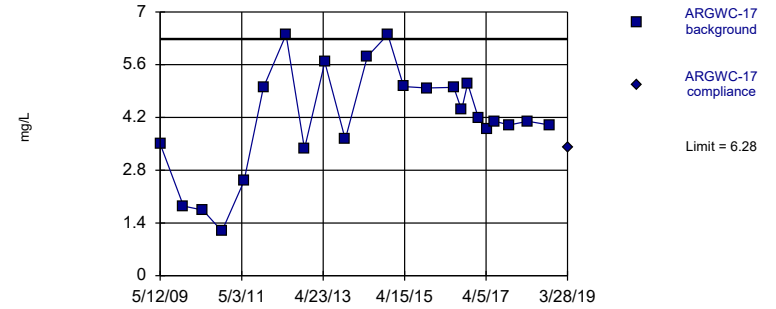


Background Data Summary: Mean=4.333, Std. Dev.=0.5785, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9314, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

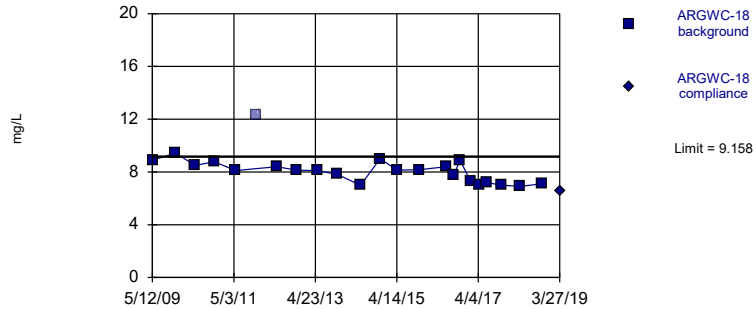


Background Data Summary: Mean=4.167, Std. Dev.=1.4, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9542, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

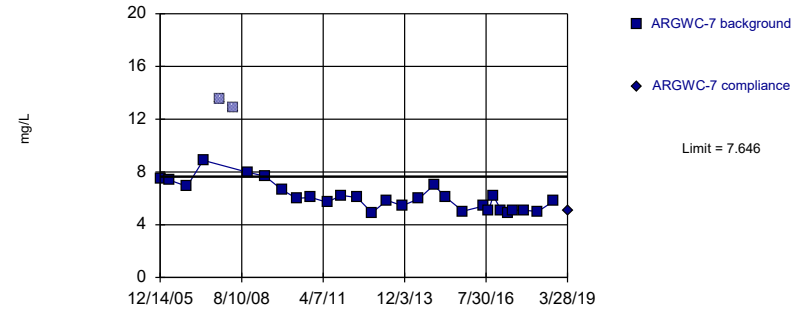


Background Data Summary: Mean=8.002, Std. Dev.=0.7601, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.936, critical = 0.878. Kappa = 1.52 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

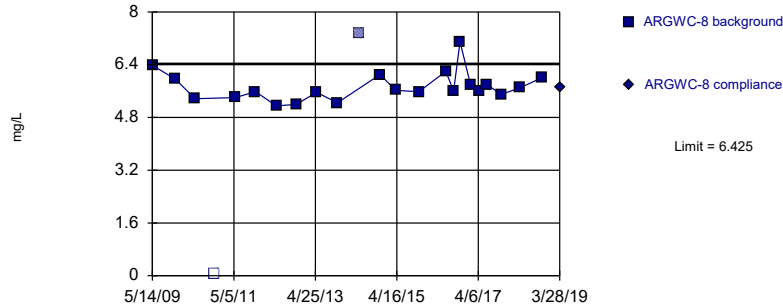


Background Data Summary: Mean=6.107, Std. Dev.=1.049, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.896. Kappa = 1.468 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

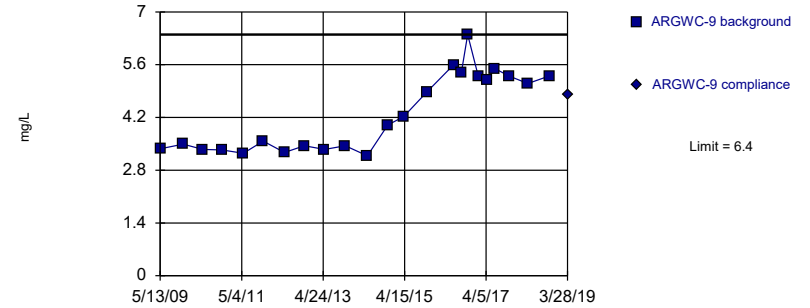


Background Data Summary: Mean=5.735, Std. Dev.=0.4507, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.873. Kappa = 1.531 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

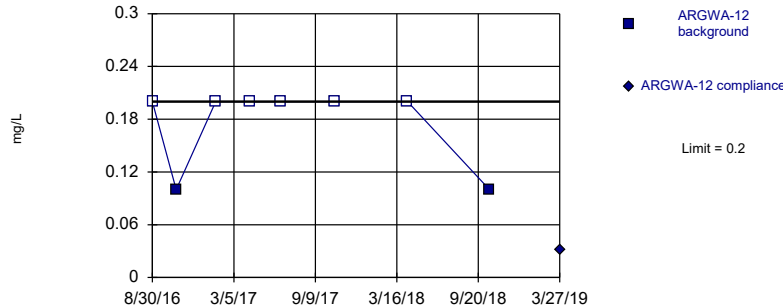


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 23 background values. Well-constituent pair annual alpha = 0.0008155. Individual comparison alpha = 0.0004078 (1 of 3).

Constituent: Chloride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

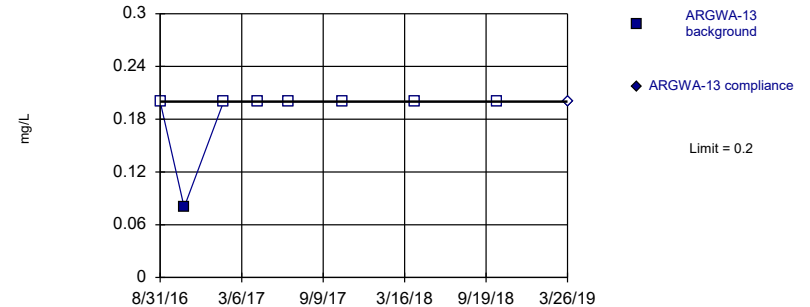


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

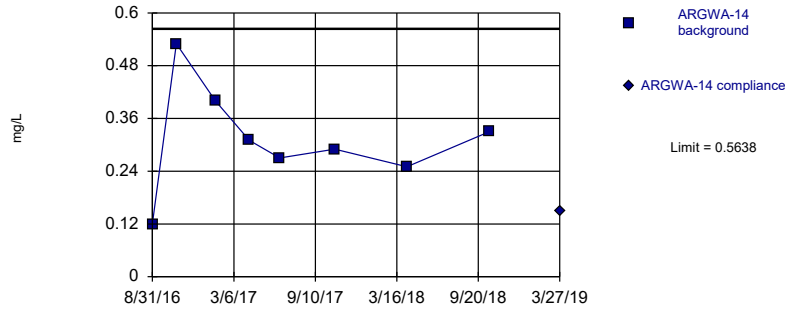


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

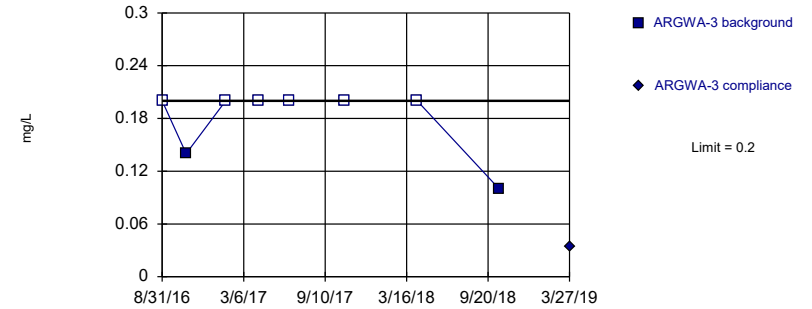


Background Data Summary: Mean=0.3125, Std. Dev.=0.1187, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9574, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Fluoride Analysis Run 8/27/2019 4:21 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

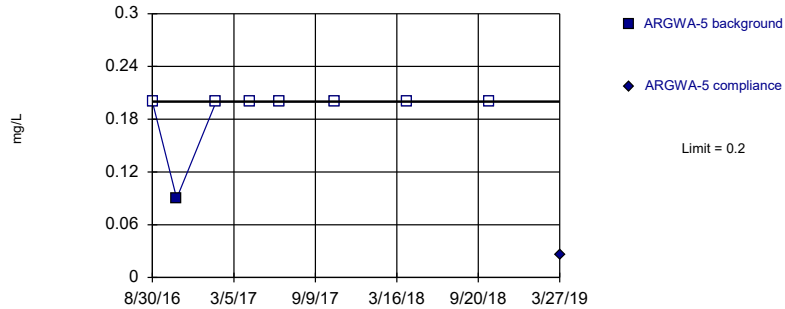


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

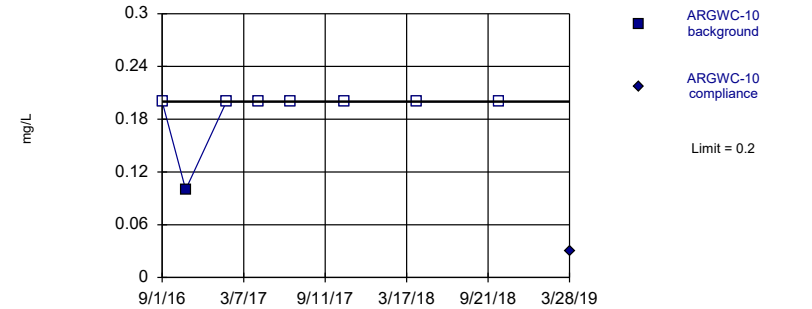


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

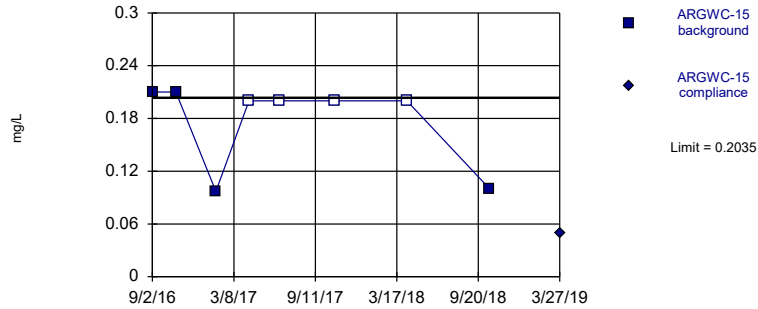


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

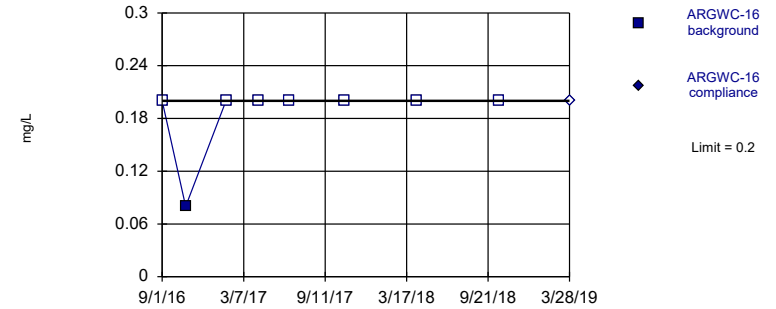


Background Data Summary (based on x^6 transformation) (after Kaplan-Meier Adjustment): Mean=0.00001152, Std. Dev.=0.00002806, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7598, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

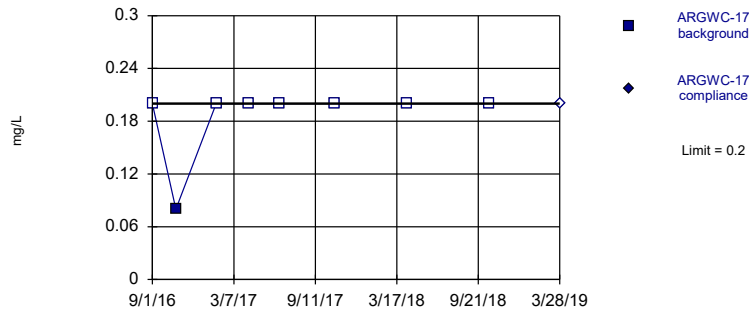


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

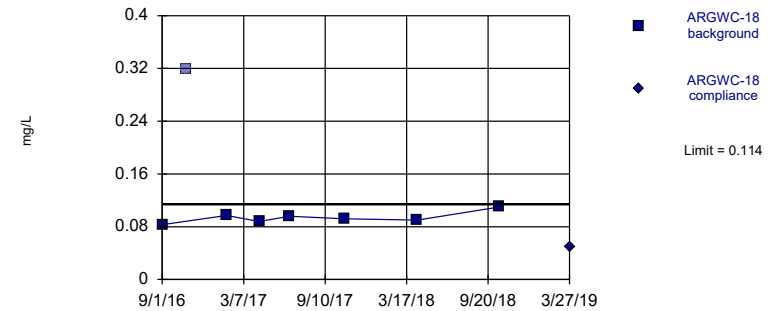


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

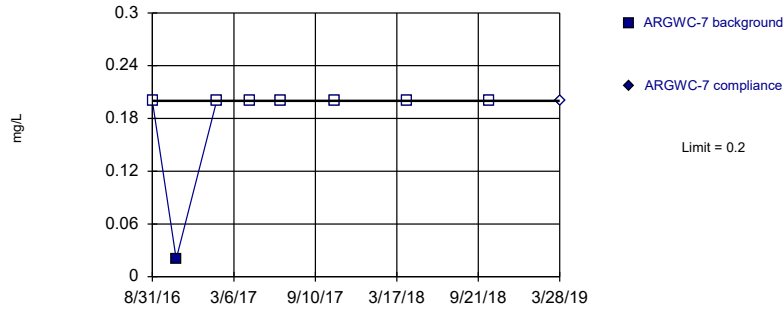


Background Data Summary: Mean=0.09371, Std. Dev.=0.008616, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9341, critical = 0.73. Kappa = 2.356 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

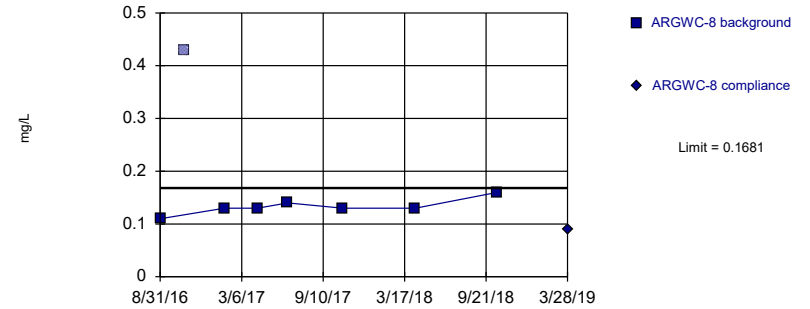


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

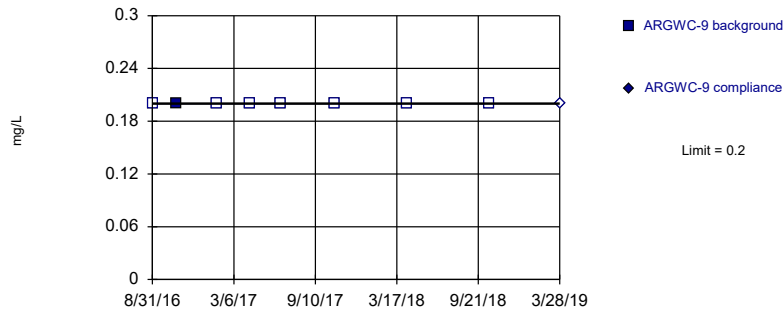


Background Data Summary: Mean=0.1329, Std. Dev.=0.01496, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8708, critical = 0.73. Kappa = 2.356 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

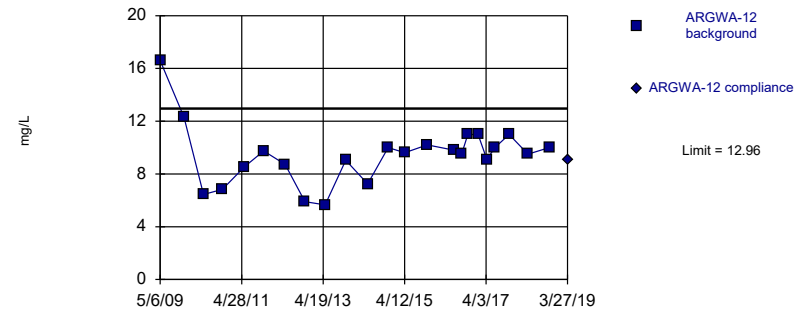


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

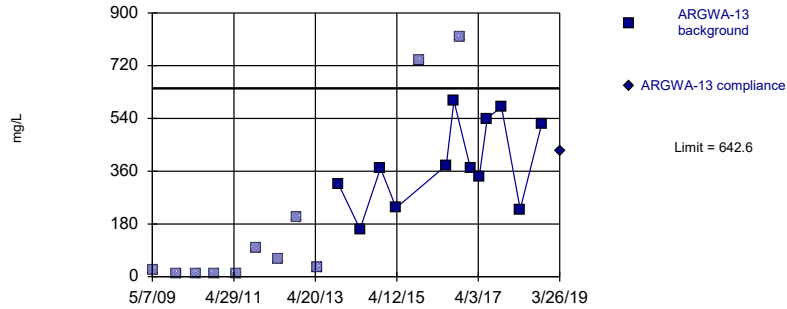


Background Data Summary: Mean=9.467, Std. Dev.=2.311, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8976, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

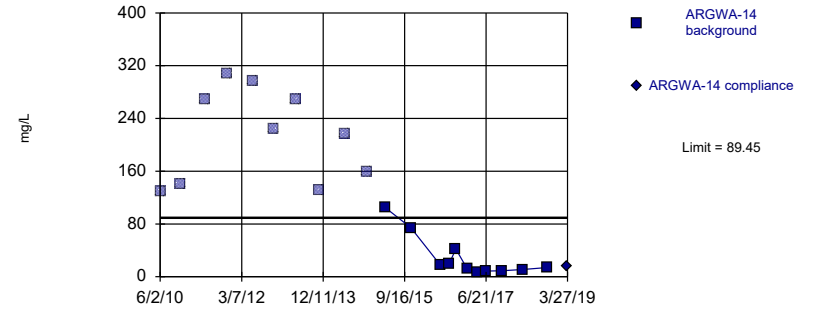


Background Data Summary: Mean=386.9, Std. Dev.=144.6, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9354, critical = 0.805. Kappa = 1.768 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

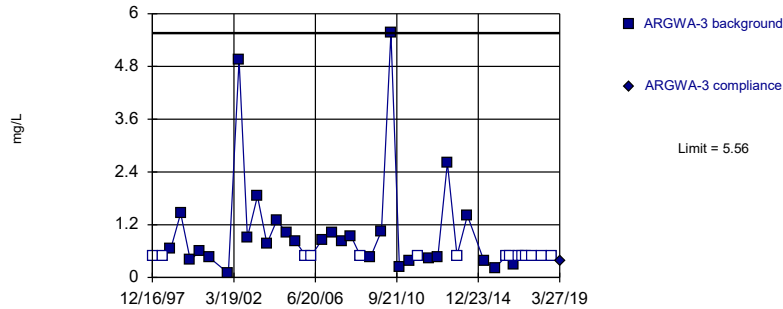


Background Data Summary (based on square root transformation): Mean=4.825, Std. Dev.=2.53, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7931, critical = 0.792. Kappa = 1.831 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

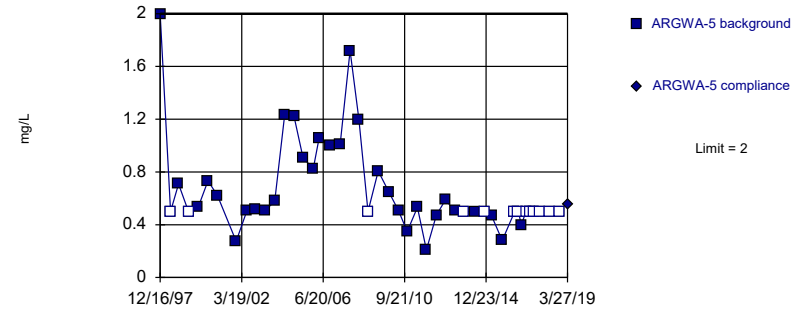


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 34.09% NDs. Well-constituent pair annual alpha = 0.0001313. Individual comparison alpha = 0.00006567 (1 of 3).

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

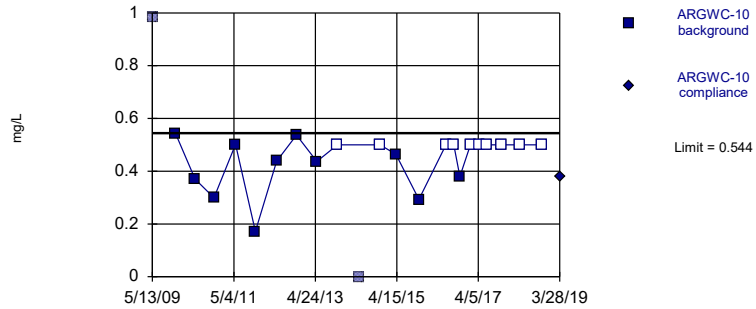


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 45 background values. 28.89% NDs. Well-constituent pair annual alpha = 0.0001237. Individual comparison alpha = 0.00006184 (1 of 3).

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

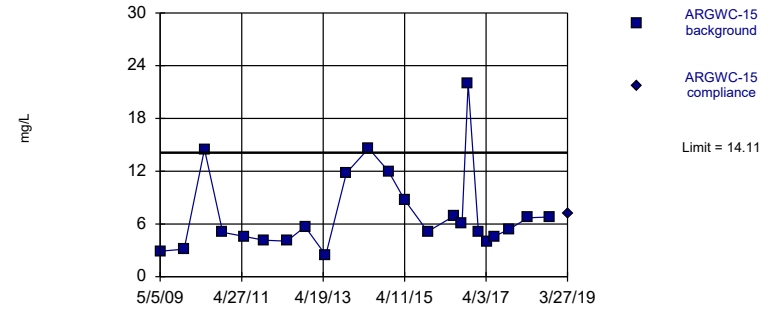


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 21 background values. 47.62% NDs. Well-constituent pair annual alpha = 0.001022. Individual comparison alpha = 0.000511 (1 of 3).

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

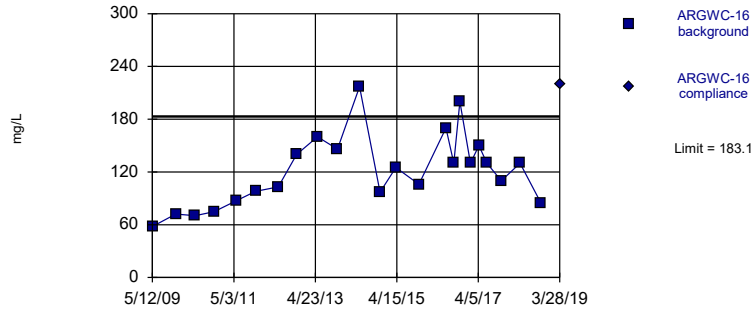


Background Data Summary (based on square root transformation): Mean=2.579, Std. Dev.=0.78, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8873, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Exceeds Limit

Prediction Limit
Intrawell Parametric

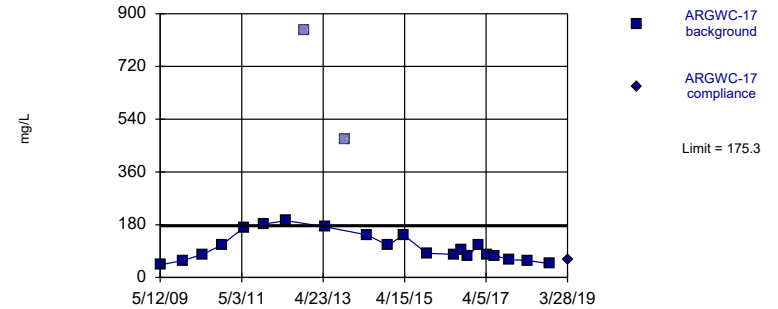


Background Data Summary: Mean=121.2, Std. Dev.=40.96, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9599, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

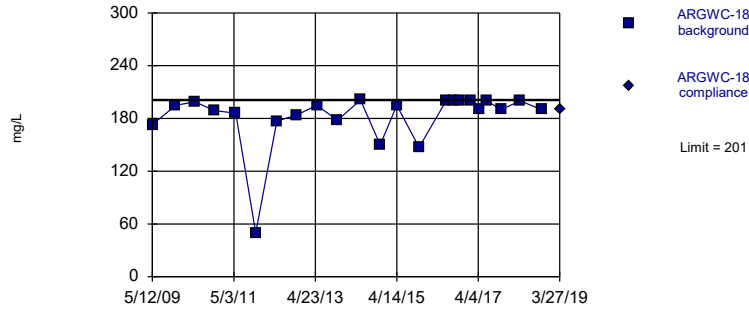


Background Data Summary: Mean=103.2, Std. Dev.=47.05, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9039, critical = 0.873. Kappa = 1.531 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

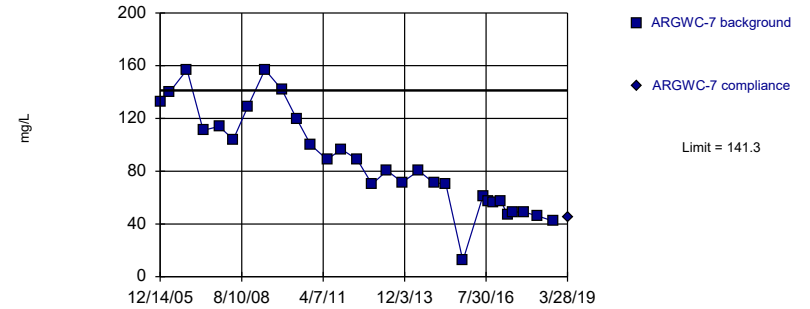


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 23 background values. Well-constituent pair annual alpha = 0.0008155. Individual comparison alpha = 0.0004078 (1 of 3).

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

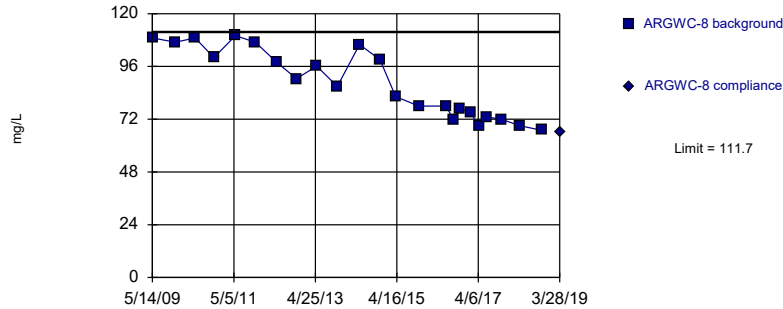


Background Data Summary: Mean=86.72, Std. Dev.=37.52, n=30. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9595, critical = 0.9. Kappa = 1.454 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

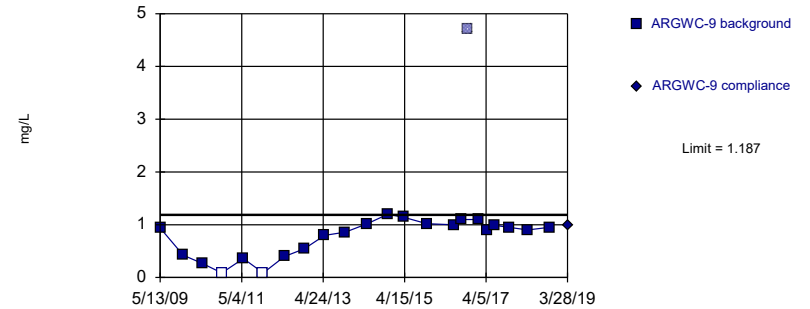


Background Data Summary: Mean=88.3, Std. Dev.=15.48, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8874, critical = 0.881. Kappa = 1.51 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

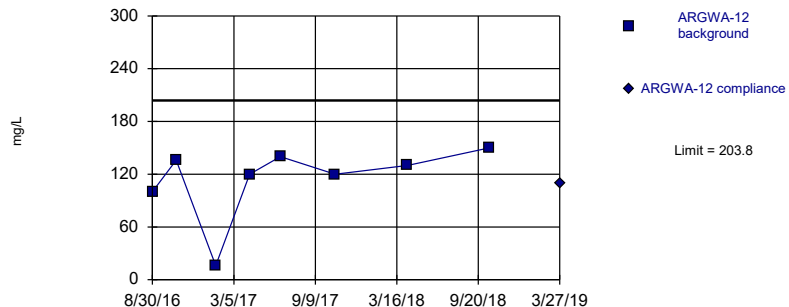


Background Data Summary (based on square transformation): Mean=0.7157, Std. Dev.=0.4567, n=22, 9.091% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9087, critical = 0.878. Kappa = 1.52 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Sulfate Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

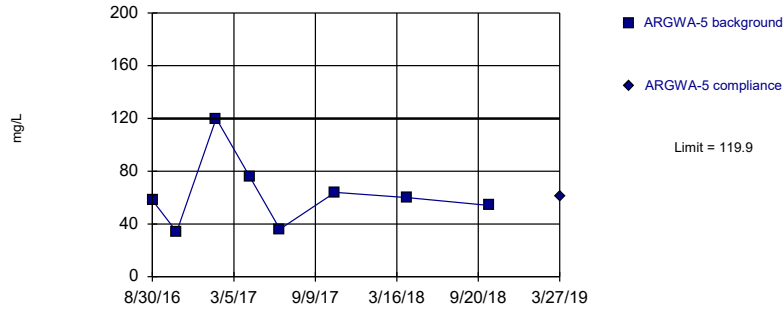
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

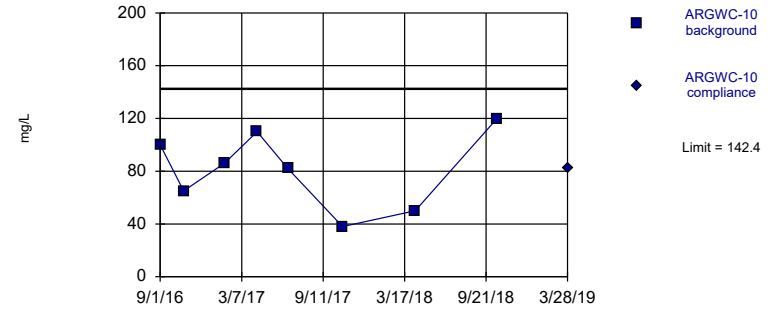


Background Data Summary: Mean=62.75, Std. Dev.=27, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.868, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

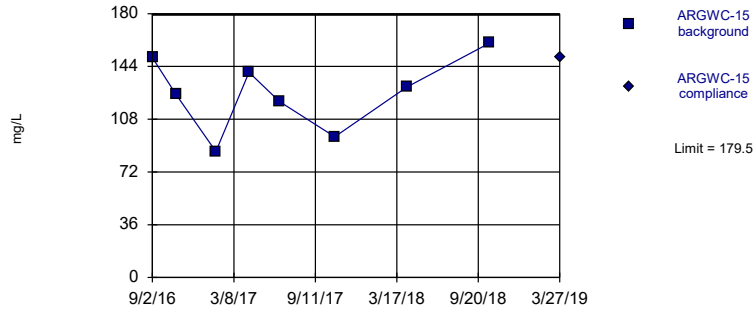


Background Data Summary: Mean=81.38, Std. Dev.=28.82, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9658, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

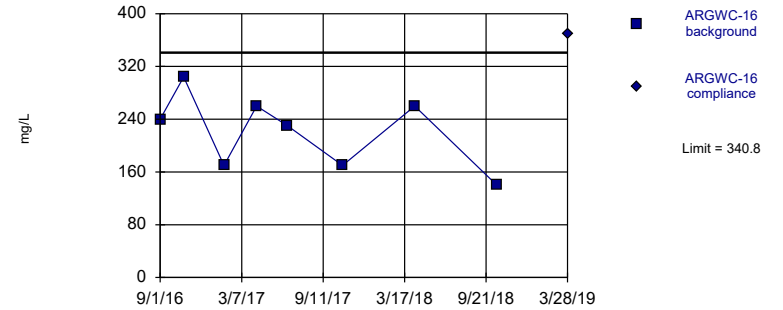


Background Data Summary: Mean=125.9, Std. Dev.=25.3, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9615, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Exceeds Limit

Prediction Limit
Intrawell Parametric

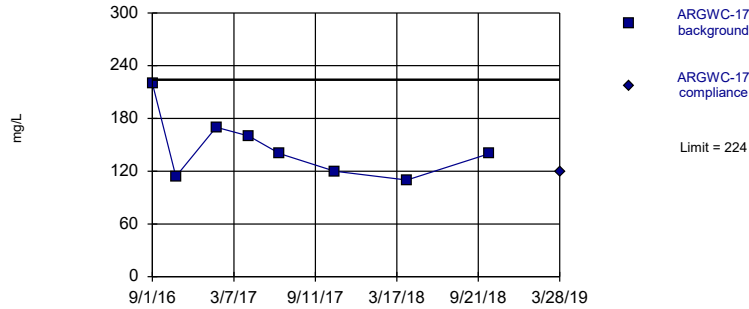


Background Data Summary: Mean=221.8, Std. Dev.=56.23, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9366, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

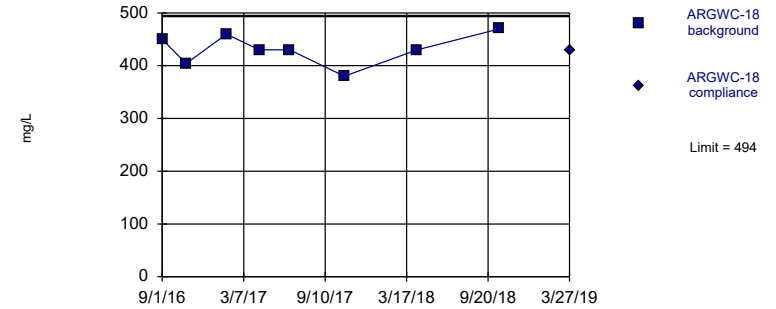


Background Data Summary: Mean=146.8, Std. Dev.=36.47, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8945, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

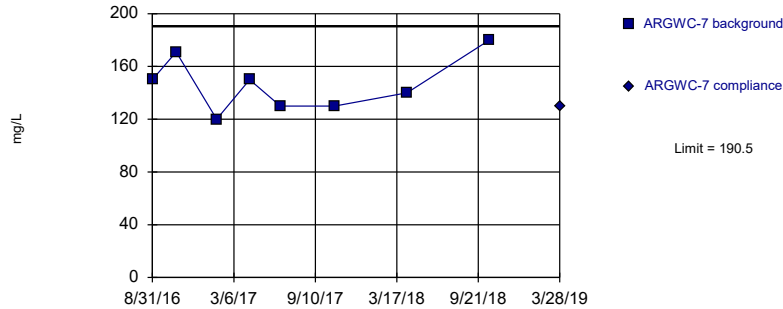


Background Data Summary: Mean=431.8, Std. Dev.=29.4, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9463, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

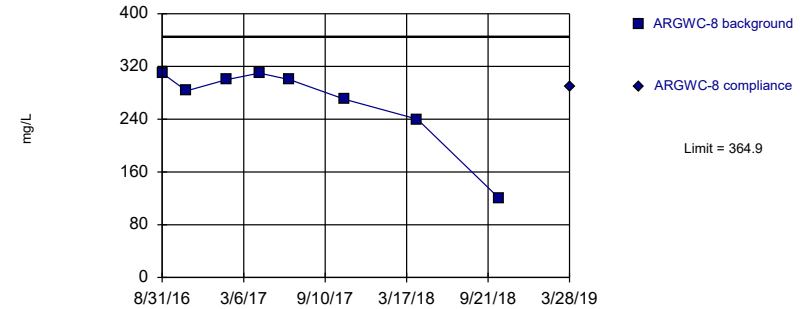


Background Data Summary: Mean=146.4, Std. Dev.=20.83, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9369, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

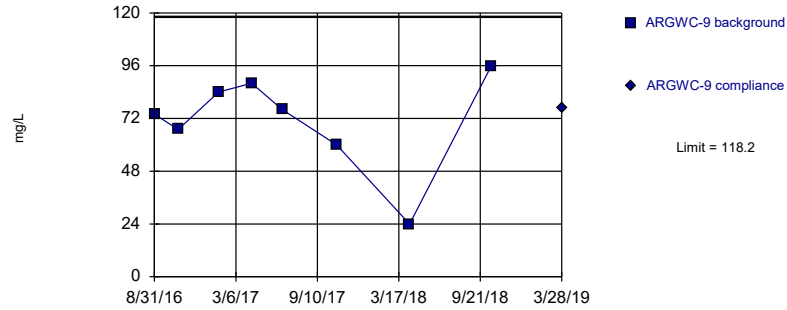


Background Data Summary (based on square transformation): Mean=74649, Std. Dev.=27632, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7944, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=71.13, Std. Dev.=22.24, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8898, critical = 0.749. Kappa = 2.118 (c=7, w=8, 1 of 3, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:22 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Calcium Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
8/30/2016	11							
8/31/2016			110		31		5.4	
10/24/2016	10.4							
10/25/2016			150		38.5		4.47	
1/23/2017	12				25			
1/24/2017			78				5.8	
4/11/2017	12		78		33		5.3	
6/20/2017					34		5.8	
6/21/2017	12		110					
10/25/2017	13		120		28		5.9	
4/9/2018			49		30			
4/10/2018	13						5.9	
10/16/2018	12		110		41		5.8	
3/26/2019				95				
3/27/2019		11				42		5.4

Prediction Limit

Constituent: Calcium Analysis Run 8/27/2019 4:28 PM View: CCR Inrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
8/30/2016	5.1							
9/1/2016			6.6				21	
9/2/2016					22			
10/25/2016	4.76		5.89				29.8	
10/26/2016					23.7			
1/24/2017	5.6							
1/26/2017					23		23	
1/27/2017			7.4					
4/11/2017	4.7						28	
4/12/2017			6.7		17			
6/20/2017	5.4							
6/21/2017					18		22	
6/22/2017			7.5					
10/25/2017	6							
10/26/2017			7.8		19		21	
4/10/2018	5.3				24		25	
4/11/2018			7.4					
10/16/2018	5.6						16	
10/17/2018			7.1		21			
3/27/2019		4.5				28		
3/28/2019				7.3				41

Prediction Limit

Constituent: Calcium Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8
8/31/2016					12		46	
9/1/2016	16		42					
10/25/2016	13.5				10.9			
10/26/2016			44.3				43.3	
1/26/2017	21				13		51	
1/27/2017			49					
4/11/2017	16							
4/12/2017			45		12		47	
6/21/2017	15		49				51	
6/22/2017					13			
10/25/2017			49		12			
10/26/2017	13						55	
4/10/2018	13				12			
4/11/2018			44				44	
10/17/2018	10		49		11		52	
3/27/2019				47				
3/28/2019		10				11		52

Prediction Limit

Constituent: Calcium, Chloride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14
5/6/2009			10.7					
5/7/2009					4.24			
12/3/2009			10.1		2.66			
5/25/2010			7.11		3.29			
11/9/2010			8.4					
11/10/2010					3.82			
5/24/2011			9.07					
5/25/2011					4.92			
11/10/2011			10.3		4.48			
5/18/2012			10.1					
5/30/2012					4.72			
11/9/2012			8.73		5.1			
5/8/2013			8.06					
5/9/2013					3.85			
11/6/2013			10.2					
11/11/2013					5.26			
5/20/2014			8.2					
5/21/2014					4.47			
11/18/2014			10		6.4			
4/7/2015					5.04			
4/14/2015			10.7					
10/28/2015					6.3			
10/29/2015			10.7					
11/4/2015							12.4	
6/23/2016			11		5.7		9	
8/30/2016			11					
8/31/2016	5.2				5.7		5.4	
10/24/2016			12					
10/25/2016	4.64				7.9 (B)		9.3 (B)	
1/23/2017			11				5.1	
1/24/2017					4.4			
1/26/2017	5.5							
4/11/2017			11		4.3		4.1	
4/12/2017	4.9							
6/20/2017							4.1	
6/21/2017			11		5.5			
6/22/2017	5.8							
10/25/2017	6.1		10		5.2		3.8	
4/9/2018					3.8		3.9	
4/10/2018			9.9					
4/11/2018	6							
10/16/2018			11		6		4.3	
10/17/2018	5.8							
3/26/2019						4.6		
3/27/2019				11				4
3/28/2019		5.6						

Prediction Limit

Constituent: Chloride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15
12/16/1997			3.8					
6/30/1998	4.6		2.9					
12/2/1998	3.13		1.76					
6/8/1999	1.56		1.97					
12/7/1999	3.05		1.98					
6/15/2000	3.35		2.08					
12/12/2000	2.42		2.02					
12/5/2001	2.62		2.03					
6/26/2002	3.4		2.52					
12/3/2002	3.04		2.12					
6/11/2003	3.02		2.43					
12/10/2003	2.9		1.93					
6/15/2004	2.05		2.42					
12/14/2004	2.78		2.44					
6/2/2005	3.15		2.79					
12/14/2005	3.38		2.77					
4/5/2006	3.49		2.8					
10/30/2006	2.84		3.09					
5/10/2007	3.68		3.93					
11/17/2007	2.69							
5/3/2008	2.85		3.52					
10/22/2008	2.99		3.15					
5/5/2009							2.61	
5/6/2009			3.49					
5/7/2009	2.96							
5/13/2009					3.85			
12/1/2009			3.26					
12/3/2009					3.73			
12/4/2009	2.97						2.37	
5/25/2010			3.62					
5/26/2010					3.7			
6/1/2010	3.23						3.71	
11/9/2010			3.38		3.6			
11/10/2010	2.86						2.69	
5/19/2011					3.79			
5/24/2011			3.62					
5/25/2011	2.86						2.44	
11/9/2011							2.3	
11/10/2011			3.74					
11/11/2011					4.07			
11/12/2011	2.83							
5/17/2012					3.84			
5/18/2012			3.6					
5/31/2012	2.68						2.29	
11/9/2012			3.66		3.99			
11/10/2012							2.46	
11/11/2012	2.63							
5/7/2013					3.94			
5/8/2013			4.16					
11/6/2013			3.87		3.89			
11/12/2013	2.95						2.86	
5/20/2014			4.4		3.54			

Prediction Limit

Constituent: Chloride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15
5/28/2014							2.75	
5/29/2014	2.64							
11/17/2014			4.2					
11/18/2014					4.2			
11/20/2014							3.4	
4/7/2015			4.53		4.09			
4/14/2015	2.78						2.56	
10/28/2015			4.47		3.98			
11/3/2015	2.66						2.01	
6/23/2016	3.3		4.6		4.3		1.9	
8/30/2016			4.3					
8/31/2016	2.7							
9/1/2016					4			
9/2/2016							2.7	
10/25/2016	3.1 (B)		5 (B)		4.6 (B)			
10/26/2016							3.3 (B)	
1/24/2017	2.5		5.1					
1/26/2017							1.6	
1/27/2017					3.9			
4/11/2017	2.4		4.4					
4/12/2017					3.7		1.5	
6/20/2017	2.5		5					
6/21/2017							1.6	
6/22/2017					3.9			
10/25/2017	2.3		5.3					
10/26/2017					3.7		1.6	
4/10/2018	2.4		5.1				1.8	
4/11/2018					3.8			
10/16/2018	2.5		5.3					
10/17/2018					4		2.1	
3/27/2019		2.5		4.3				1.8
3/28/2019						3.7		

Prediction Limit

Constituent: Chloride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7
12/14/2005							7.52	
4/5/2006							7.38	
10/30/2006							6.9	
5/10/2007							8.88	
10/22/2008							7.97	
5/12/2009	3.96		3.5		8.89			
5/14/2009							7.68	
12/1/2009							6.66	
12/4/2009			1.85		9.43			
12/5/2009	3.81							
5/25/2010			1.74		8.49			
5/26/2010	3.85						6	
11/9/2010	4.08		1.18					
11/10/2010					8.77		6.07	
5/19/2011					8.11			
5/24/2011	3.63		2.51					
5/25/2011							5.7	
11/11/2011							6.23	
11/12/2011	4.03		4.99					
5/17/2012					8.4		6.06	
5/30/2012	3.82		6.4					
11/9/2012	3.69		3.37				4.9	
11/10/2012					8.13			
5/7/2013					8.11			
5/8/2013			5.67				5.85	
5/13/2013	3.5							
11/5/2013					7.82		5.44	
11/6/2013	3.74		3.62					
5/20/2014			5.82					
5/21/2014	3.74						5.96	
5/28/2014					6.99			
11/17/2014	4.4		6.4				7	
11/19/2014					9			
4/7/2015	4.38		5.02				6.08	
4/15/2015					8.14			
10/28/2015	4.62		4.98				5.02	
10/29/2015					8.17			
6/23/2016							5.4	
6/24/2016	5		5		8.4			
8/31/2016							5.1	
9/1/2016	4.8		4.4		7.8			
10/25/2016	5.4 (B)		5.1 (B)				6.2 (B)	
10/26/2016					8.9 (B)			
1/26/2017	5.2		4.2				5.1	
1/27/2017					7.3			
4/11/2017	4.8		3.9					
4/12/2017					7		4.9	
6/21/2017	5.2		4.1		7.2			
6/22/2017							5.1	
10/25/2017					7		5.1	
10/26/2017	4.7		4					
4/10/2018	4.8		4.1				5	

Prediction Limit

Constituent: Chloride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7
4/11/2018					6.9			
10/16/2018	4.5							
10/17/2018			4		7.1		5.8	
3/27/2019						6.6		
3/28/2019		4.6		3.4				5.1

Prediction Limit

Constituent: Chloride, Fluoride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13
5/13/2009			3.37					
5/14/2009	6.38							
12/3/2009	5.96		3.49					
5/26/2010	5.37		3.35					
11/9/2010			3.34					
5/18/2011	5.4							
5/19/2011			3.25					
11/11/2011	5.58		3.57					
5/17/2012	5.15		3.27					
11/9/2012	5.2		3.45					
5/7/2013	5.56		3.35					
11/5/2013	5.24							
11/6/2013			3.45					
5/21/2014			3.18					
11/18/2014	6.1		4					
4/7/2015	5.62		4.22					
10/28/2015	5.58		4.87					
6/23/2016	6.2		5.6					
8/30/2016					<0.2			
8/31/2016	5.6		5.4				<0.2	
10/24/2016					0.1 (J)			
10/25/2016			6.4 (B)				0.08 (J)	
10/26/2016	7.1 (B)							
1/23/2017					<0.2			
1/24/2017							<0.2	
1/26/2017	5.8		5.3					
4/11/2017					<0.2		<0.2	
4/12/2017	5.6		5.2					
6/21/2017	5.8				<0.2		<0.2	
6/22/2017			5.5					
10/25/2017			5.3		<0.2		<0.2	
10/26/2017	5.5							
4/9/2018							<0.2	
4/10/2018					<0.2			
4/11/2018	5.7		5.1					
10/16/2018					0.1 (J)		<0.2	
10/17/2018	6		5.3					
3/26/2019								<0.2
3/27/2019						0.031 (J)		
3/28/2019		5.7		4.8				

Prediction Limit

Constituent: Fluoride Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18
9/1/2016			<0.2		<0.2		0.083 (J)	
9/2/2016	0.21							
10/25/2016			0.08 (J)		0.08 (J)			
10/26/2016	0.21 (J)							
1/26/2017	0.097 (J)		<0.2		<0.2			
1/27/2017							0.097 (J)	
4/11/2017			<0.2		<0.2			
4/12/2017	<0.2						0.088 (J)	
6/21/2017	<0.2		<0.2		<0.2		0.096 (J)	
10/25/2017							0.092 (J)	
10/26/2017	<0.2		<0.2		<0.2			
4/10/2018	<0.2		<0.2		<0.2			
4/11/2018							0.09 (J)	
10/16/2018			<0.2					
10/17/2018	0.1 (J)				<0.2		0.11 (J)	
3/27/2019		0.05 (J)						0.05 (J)
3/28/2019				<0.2		<0.2		

Prediction Limit

Constituent: Fluoride, Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12
5/6/2009							16.6	
12/3/2009							12.3	
5/25/2010							6.44	
11/9/2010							6.83	
5/24/2011							8.55	
11/10/2011							9.74	
5/18/2012							8.72	
11/9/2012							5.9	
5/8/2013							5.66	
11/6/2013							9.04	
5/20/2014							7.25	
11/18/2014							10	
4/14/2015							9.61	
10/29/2015							10.2	
6/23/2016							9.8	
8/30/2016							9.5	
8/31/2016	<0.2		0.11 (J)		<0.2			
10/24/2016							11	
10/25/2016	0.02 (J)				0.2 (J)			
1/23/2017							11	
1/26/2017	<0.2		0.13 (J)		<0.2			
4/11/2017							9.1	
4/12/2017	<0.2		0.13 (J)		<0.2			
6/21/2017			0.14 (J)				10	
6/22/2017	<0.2				<0.2			
10/25/2017	<0.2				<0.2		11	
10/26/2017			0.13 (J)					
4/10/2018	<0.2						9.5	
4/11/2018			0.13 (J)		<0.2			
10/16/2018							10	
10/17/2018	<0.2		0.16 (J)		<0.2			
3/27/2019								9.1
3/28/2019		<0.2		0.089 (J)		<0.2		

Prediction Limit

Constituent: Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5
12/16/1997					<1		2	
6/30/1998					<1		<1	
12/2/1998					0.654		0.709	
6/8/1999					1.46		<1	
12/7/1999					0.399		0.531	
6/15/2000					0.601		0.733	
12/12/2000					0.45		0.621	
12/5/2001					0.094		0.274	
6/26/2002					4.95		0.505	
12/3/2002					0.911		0.515	
6/11/2003					1.85		0.508	
12/10/2003					0.77		0.578	
6/15/2004					1.3		1.23	
12/14/2004					1.02		1.22	
6/2/2005					0.834		0.908	
12/14/2005					<1		0.825	
4/5/2006					<1		1.06	
10/30/2006					0.865		0.996	
5/10/2007					1.03		1.01	
11/17/2007					0.818		1.72	
5/3/2008					0.941		1.2	
10/22/2008					<1		<1	
5/6/2009							0.807	
5/7/2009					0.46			
12/1/2009							0.644	
12/4/2009					1.06			
5/25/2010							0.509	
6/1/2010					5.56			
11/9/2010							0.348	
11/10/2010					0.241			
5/24/2011							0.532	
5/25/2011					0.383			
11/10/2011							0.209	
11/12/2011					<1			
5/18/2012							0.471	
5/31/2012					0.426			
11/9/2012							0.589	
11/11/2012					0.455 (J)			
5/8/2013							0.504	
5/13/2013					2.61			
11/6/2013							<1	
11/11/2013	316							
11/12/2013					<1			
5/20/2014							0.5 (J)	
5/21/2014	162							
5/29/2014					1.41			
11/17/2014							<1	
11/18/2014	370							
4/7/2015	235						0.469	
4/14/2015			105		0.377			
10/28/2015							0.28	
11/3/2015					0.215			

Prediction Limit

Constituent: Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5
11/4/2015			74.4					
6/23/2016	380		18		<1		<1	
8/30/2016							<1	
8/31/2016	600		19		<1			
10/25/2016			42		0.3 (J)		0.4 (J)	
1/23/2017			12					
1/24/2017	370				<1		<1	
4/11/2017	340		7.1		<1		<1	
6/20/2017			8.5		<1		<1	
6/21/2017	540							
10/25/2017	580		9.1		<1		<1	
4/9/2018	230		11					
4/10/2018					<1		<1	
10/16/2018	520		14		<1		<1	
3/26/2019		430						
3/27/2019				15		0.38 (J)		0.55 (J)

Prediction Limit

Constituent: Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17
5/5/2009			2.89					
5/12/2009					57.9		42.6	
12/3/2009	0.544							
12/4/2009			3.13				58.4	
12/5/2009					72.1			
5/25/2010							79.4	
5/26/2010	0.37				70.3			
6/1/2010			14.5					
11/9/2010	0.299				74.8		111	
11/10/2010			5.04					
5/19/2011	0.502							
5/24/2011					87.2		171	
5/25/2011			4.57					
11/9/2011			4.15					
11/11/2011	0.172							
11/12/2011					97.9		182	
5/17/2012	0.438							
5/30/2012					103		194	
5/31/2012			4.05					
11/9/2012	0.537				140			
11/10/2012			5.68					
5/7/2013	0.437							
5/8/2013							173	
5/13/2013			2.45		160			
11/6/2013	<1				146			
11/12/2013			11.8					
5/20/2014							145	
5/21/2014					217			
5/28/2014			14.6					
11/17/2014					97		110	
11/18/2014	<1							
11/20/2014			12					
4/7/2015	0.464				125		145	
4/14/2015			8.71					
10/28/2015	0.293				106		82.7	
11/3/2015			5.14					
6/23/2016	<1		6.9					
6/24/2016					170		79	
9/1/2016	<1				130		94	
9/2/2016			6.1					
10/25/2016	0.38 (J)				200		73	
10/26/2016			22					
1/26/2017			5.1		130		110	
1/27/2017	<1							
4/11/2017					150		77	
4/12/2017	<1		4					
6/21/2017			4.6		130		75	
6/22/2017	<1							
10/26/2017	<1		5.4		110		61	
4/10/2018			6.7		130		58	
4/11/2018	<1							
10/16/2018					84			

Prediction Limit

Constituent: Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17
10/17/2018	<1		6.8				47	
3/27/2019				7.2				
3/28/2019		0.38 (J)				220		59

Prediction Limit

Constituent: Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9
12/14/2005			133					
4/5/2006			140					
10/30/2006			157					
5/10/2007			111					
11/17/2007			114					
5/2/2008			104					
10/22/2008			129					
5/12/2009	173							
5/13/2009							0.938	
5/14/2009			157		109			
12/1/2009			142					
12/3/2009					107		0.422	
12/4/2009	195							
5/25/2010	199							
5/26/2010			120		109		0.262	
11/9/2010					100		<0.17	
11/10/2010	189		100					
5/18/2011					110			
5/19/2011	186						0.359	
5/25/2011			88.8					
11/11/2011			96.6		107		<0.17	
11/12/2011	49.9							
5/17/2012	177		88.9		98		0.398	
11/9/2012			70.1		90.4		0.545	
11/10/2012	184							
5/7/2013	195				96.2		0.797	
5/8/2013			80.5					
11/5/2013	178		71.6		86.9			
11/6/2013							0.86	
5/21/2014			80.4		106		1.02	
5/28/2014	201							
11/17/2014			71					
11/18/2014					99		1.2	
11/19/2014	150							
4/7/2015			70.6		82.3		1.14	
4/15/2015	195							
10/28/2015			12.2		78		1.02	
10/29/2015	147							
6/23/2016			61		78		1	
6/24/2016	200							
8/31/2016			57		72		1.1	
9/1/2016	200							
10/25/2016			56					
10/26/2016	200				77			
1/26/2017			57		75		1.1	
1/27/2017	200							
4/12/2017	190		47		69		0.9 (J)	
6/21/2017	200				73			
6/22/2017			49				0.99 (J)	
10/25/2017	190		49				0.95 (J)	
10/26/2017					72			
4/10/2018			46					

Prediction Limit

Constituent: Sulfate Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9
4/11/2018	200				69		0.9 (J)	
10/17/2018	190		42		67		0.95 (J)	
3/27/2019		190						
3/28/2019				45		66		1

Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
8/30/2016	100							
8/31/2016			1000		330		80	
10/24/2016	136							
10/25/2016			1280		459		65	
1/23/2017	16				340			
1/24/2017			590				70	
4/11/2017	120		610		300		64	
6/20/2017					210		52	
6/21/2017	140		880					
10/25/2017	120		900		280		72	
4/9/2018			440		280			
4/10/2018	130						86	
10/16/2018	150		910		48		74	
3/26/2019				750				
3/27/2019		110				330		69

Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:28 PM View: CCR Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
8/30/2016	58							
9/1/2016			100				240	
9/2/2016					150			
10/25/2016	34		65				304	
10/26/2016					125			
1/24/2017	120							
1/26/2017					86		170	
1/27/2017			86					
4/11/2017	76						260	
4/12/2017			110		140			
6/20/2017	36							
6/21/2017					120		230	
6/22/2017			82					
10/25/2017	64							
10/26/2017			38		96		170	
4/10/2018	60				130		260	
4/11/2018			50					
10/16/2018	54						140	
10/17/2018			120		160			
3/27/2019		61				150		
3/28/2019				82				370

Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:28 PM View: CCR IntraWell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8
8/31/2016					150		310	
9/1/2016	220		450					
10/25/2016	114				171			
10/26/2016			404				283	
1/26/2017	170				120		300	
1/27/2017			460					
4/11/2017	160							
4/12/2017			430		150		310	
6/21/2017	140		430				300	
6/22/2017					130			
10/25/2017			380		130			
10/26/2017	120						270	
4/10/2018	110				140			
4/11/2018			430				240	
10/17/2018	140		470		180		120	
3/27/2019				430				
3/28/2019		120				130		290

Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:28 PM View: CCR IntraWell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-9
8/31/2016	74	
10/25/2016	67	
1/26/2017	84	
4/12/2017	88	
6/22/2017	76	
10/25/2017	60	
4/11/2018	24	
10/17/2018	96	
3/28/2019		77

Intrawell Prediction Limit All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:35 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	ARGWA-12	0.0013	3/27/2019	0.00049	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWA-13	0.0013	3/26/2019	0.00089	No	23	86.96	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWA-14	0.005	3/27/2019	0.0013	No	21	61.9	n/a	0.003999	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWA-3	0.0044	3/27/2019	0.00055	No	44	79.55	n/a	0.0009963	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWA-5	0.0013	3/27/2019	0.00055	No	45	88.89	n/a	0.0009557	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-10	0.0042	3/28/2019	0.0011	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.0013	3/27/2019	0.0013ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.003	3/28/2019	0.00057	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.0013	3/28/2019	0.0013ND	No	22	90.91	n/a	0.003707	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.0025	3/27/2019	0.0013ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.0013	3/28/2019	0.0013ND	No	30	96.67	n/a	0.002008	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.0013	3/28/2019	0.0013ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.0034	3/28/2019	0.00051	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Barium (mg/L)	ARGWA-12	0.07949	3/27/2019	0.063	No	22	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWA-13	0.1208	3/26/2019	0.029	No	23	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWA-14	0.06874	3/27/2019	0.054	No	20	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWA-3	0.24	3/27/2019	0.019	No	42	0	n/a	0.001077	NP (normality) 1 of 2
Barium (mg/L)	ARGWA-5	0.03551	3/27/2019	0.024	No	45	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-10	0.03523	3/28/2019	0.031	No	22	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-15	0.06223	3/27/2019	0.032	No	22	0	ln(x)	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-16	0.09014	3/28/2019	0.054	No	22	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-17	0.11	3/28/2019	0.045	No	22	0	n/a	0.003707	NP (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.05383	3/27/2019	0.033	No	21	0	sqrt(x)	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-7	0.03908	3/28/2019	0.038	No	30	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-8	0.04969	3/28/2019	0.045	No	23	0	No	0.001097	Param 1 of 2
Barium (mg/L)	ARGWC-9	0.05714	3/28/2019	0.047	No	22	0	No	0.001097	Param 1 of 2
Cadmium (mg/L)	ARGWA-12	0.0025	3/27/2019	0.0025ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Cadmium (mg/L)	ARGWA-14	0.0025	3/27/2019	0.0025ND	No	21	85.71	n/a	0.003999	NP (NDs) 1 of 2
Cadmium (mg/L)	ARGWA-3	0.0043	3/27/2019	0.0025ND	No	41	90.24	n/a	0.001118	NP (NDs) 1 of 2
Cadmium (mg/L)	ARGWA-5	0.0025	3/27/2019	0.0025ND	No	45	97.78	n/a	0.0009557	NP (NDs) 1 of 2
Cadmium (mg/L)	ARGWC-15	0.0025	3/27/2019	0.0025ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Cadmium (mg/L)	ARGWC-16	0.0025	3/28/2019	0.0025ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Cadmium (mg/L)	ARGWC-17	0.0025	3/28/2019	0.0025ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Lead (mg/L)	ARGWA-12	0.0013	3/27/2019	0.0013ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Lead (mg/L)	ARGWA-14	0.0013	3/27/2019	0.0013ND	No	21	95.24	n/a	0.003999	NP (NDs) 1 of 2
Lead (mg/L)	ARGWA-3	0.013	3/27/2019	0.0013ND	No	43	76.74	n/a	0.001037	NP (NDs) 1 of 2
Lead (mg/L)	ARGWA-5	0.013	3/27/2019	0.0013ND	No	45	93.33	n/a	0.0009557	NP (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.0056	3/27/2019	0.0013ND	No	22	81.82	n/a	0.003707	NP (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.0013	3/27/2019	0.0013ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Lead (mg/L)	ARGWC-7	0.008	3/28/2019	0.0013ND	No	30	90	n/a	0.002008	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWA-12	0.006	3/27/2019	0.0013ND	No	23	78.26	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWA-13	0.03282	3/26/2019	0.015	No	12	8.333	No	0.001097	Param 1 of 2
Selenium (mg/L)	ARGWA-14	0.0013	3/27/2019	0.0013ND	No	21	80.95	n/a	0.003999	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWA-3	0.0049	3/27/2019	0.0013ND	No	44	95.45	n/a	0.0009963	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWA-5	0.0047	3/27/2019	0.0013ND	No	45	93.33	n/a	0.0009557	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-10	0.0057	3/28/2019	0.0013ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.0041	3/27/2019	0.0013ND	No	23	82.61	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.0062	3/28/2019	0.0017	No	23	52.17	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-17	0.0059	3/28/2019	0.0013ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-18	0.0039	3/27/2019	0.0013ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2

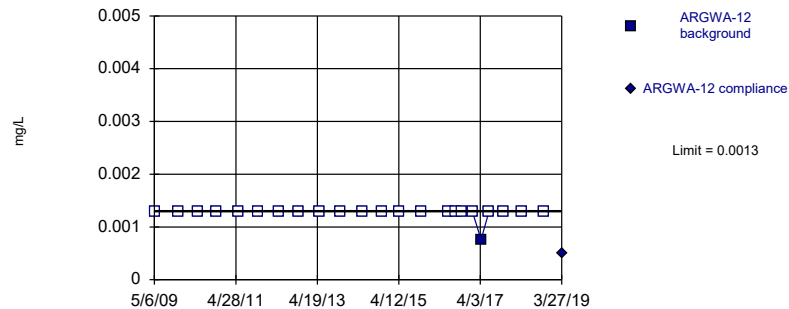
Intrawell Prediction Limit All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:35 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	ARGWC-7	0.0046	3/28/2019	0.0013ND	No	30	90	n/a	0.002008	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-8	0.0035	3/28/2019	0.0013ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.0049	3/28/2019	0.0013ND	No	23	82.61	n/a	0.003415	NP (NDs) 1 of 2
Silver (mg/L)	ARGWA-12	0.0013	3/27/2019	0.0013ND	No	19	94.74	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWA-13	0.0013	3/26/2019	0.0013ND	No	19	94.74	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWA-3	0.0051	3/27/2019	0.0013ND	No	39	89.74	n/a	0.001226	NP (NDs) 1 of 2
Silver (mg/L)	ARGWA-5	0.002	3/27/2019	0.0013ND	No	41	97.56	n/a	0.001118	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-10	0.0013	3/28/2019	0.0013ND	No	19	89.47	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0013	3/27/2019	0.0013ND	No	19	89.47	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0013	3/28/2019	0.0013ND	No	19	84.21	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-17	0.0014	3/28/2019	0.0013ND	No	19	89.47	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-18	0.0013	3/27/2019	0.0013ND	No	19	94.74	n/a	0.004832	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-7	0.0013	3/28/2019	0.0013ND	No	26	96.15	n/a	0.002667	NP (NDs) 1 of 2
Silver (mg/L)	ARGWC-9	0.0024	3/28/2019	0.0013ND	No	19	89.47	n/a	0.004832	NP (NDs) 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric

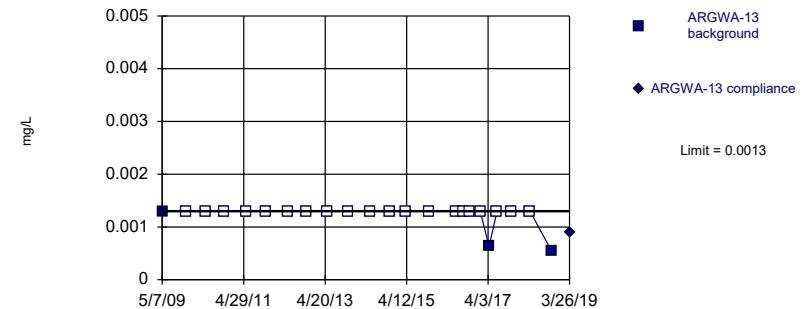


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

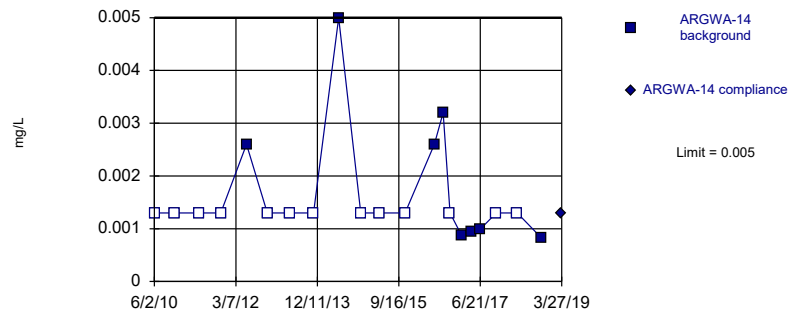


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 86.96% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

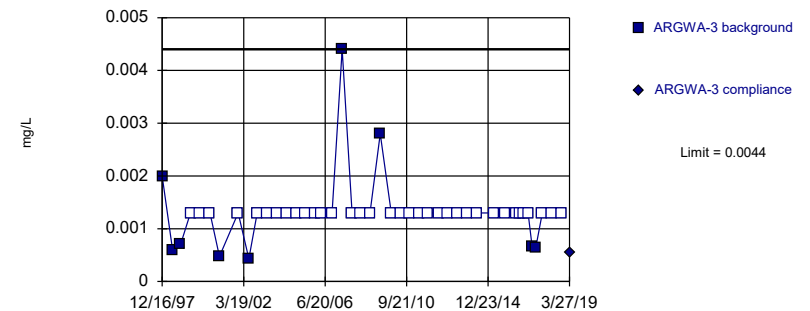


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 61.9% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

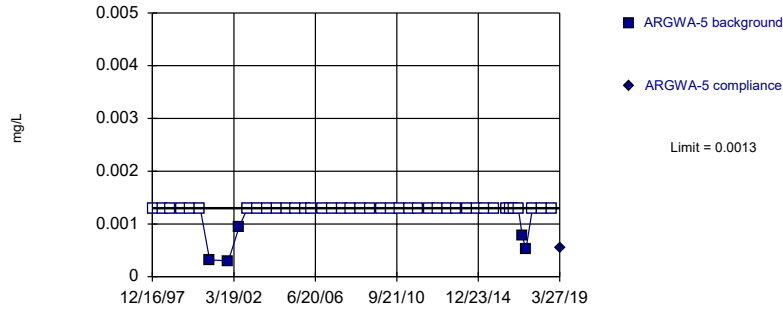


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 79.55% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

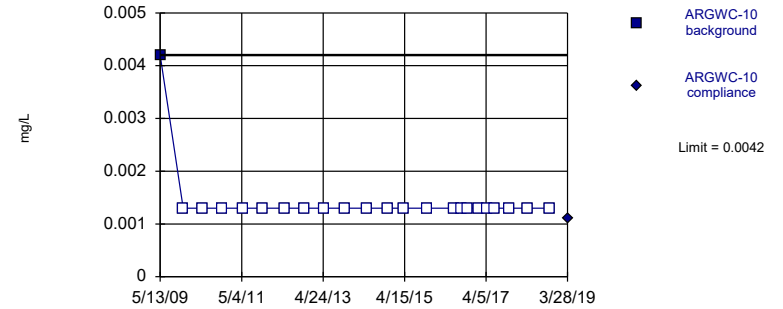


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

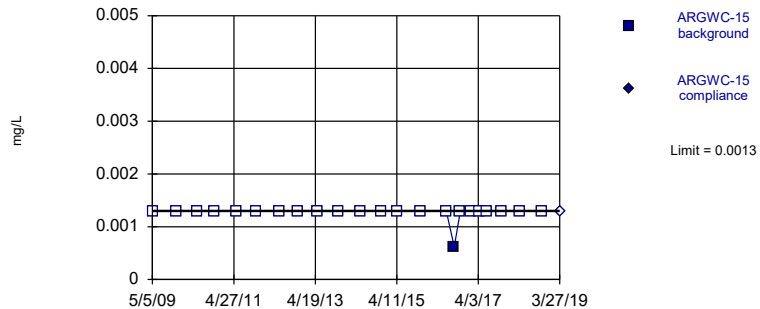


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

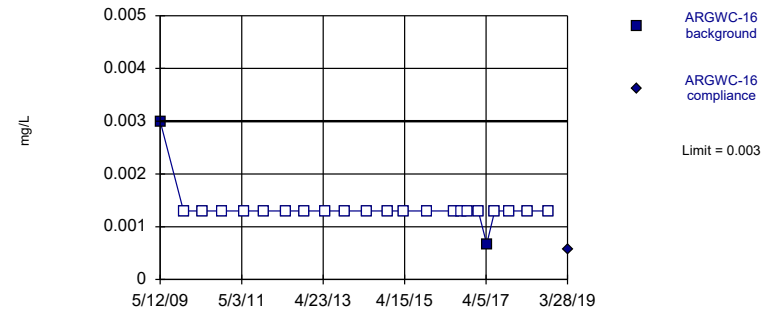


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

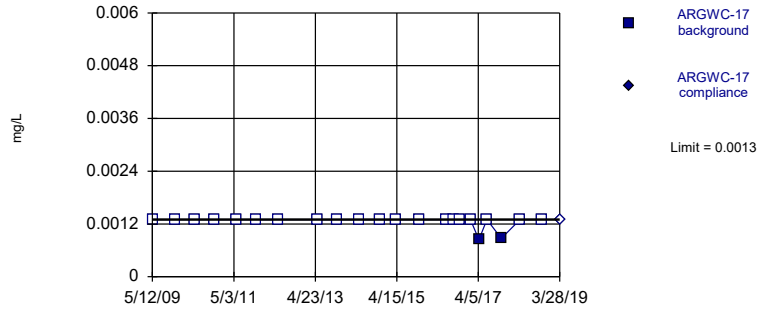


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

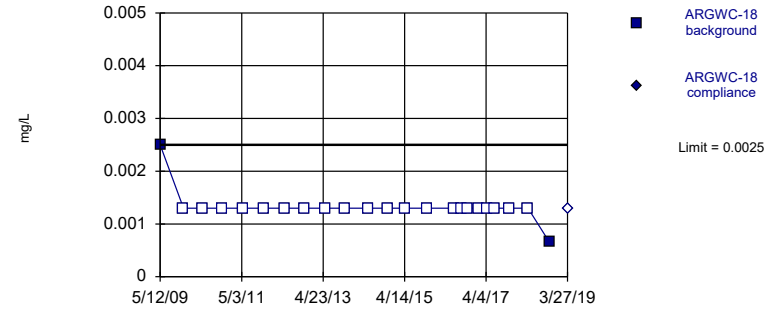


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.007401. Individual comparison alpha = 0.003707 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

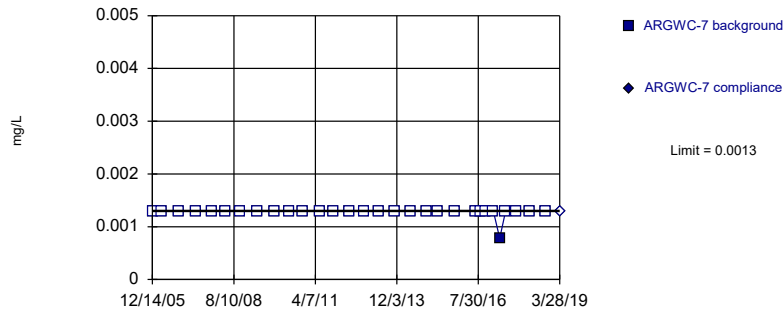


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

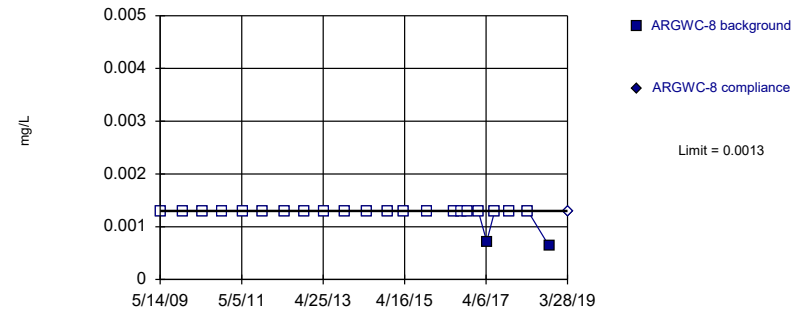


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.004011. Individual comparison alpha = 0.002008 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

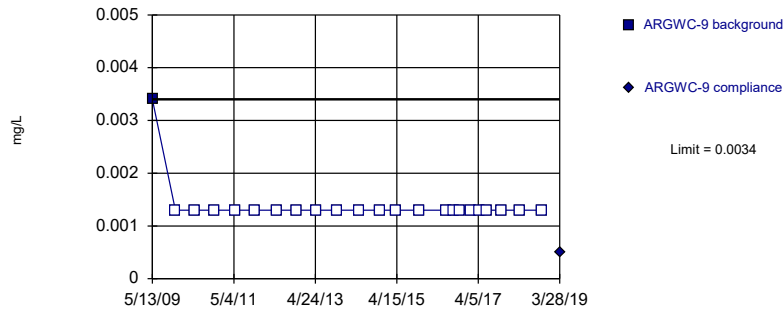


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

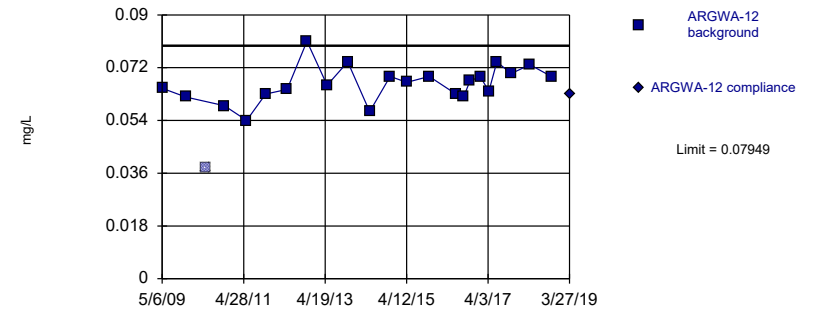


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

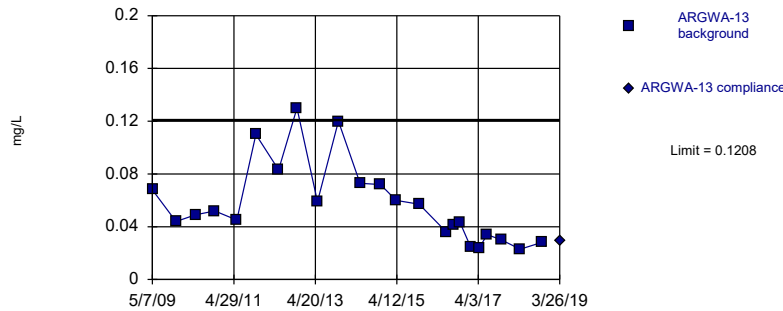


Background Data Summary: Mean=0.06645, Std. Dev.=0.006108, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9821, critical = 0.878. Kappa = 2.134 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

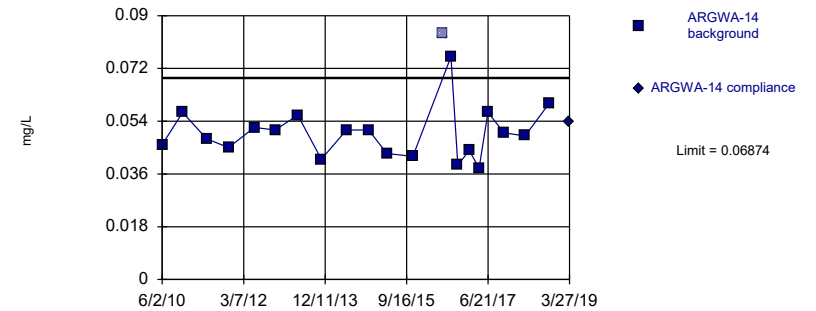


Background Data Summary: Mean=0.05678, Std. Dev.=0.0302, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8814, critical = 0.881. Kappa = 2.12 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

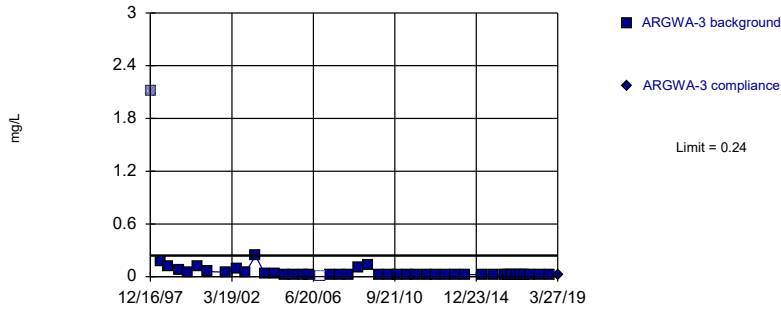


Background Data Summary: Mean=0.0498, Std. Dev.=0.008756, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9052, critical = 0.868. Kappa = 2.164 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

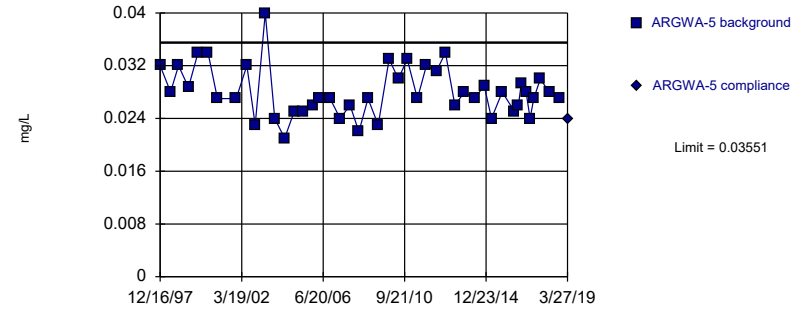


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. Well-constituent pair annual alpha = 0.002154. Individual comparison alpha = 0.001077 (1 of 2).

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

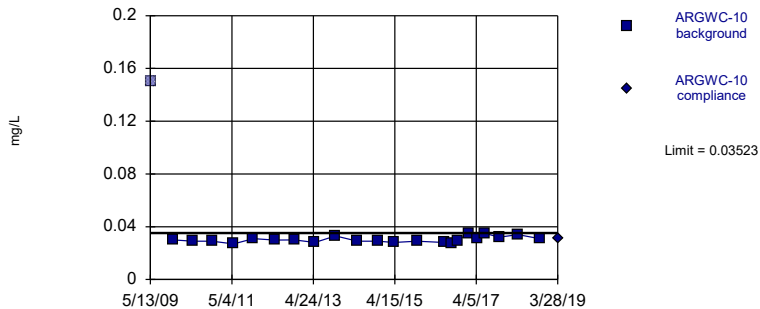


Background Data Summary: Mean=0.02802, Std. Dev.=0.003807, n=45. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.956, critical = 0.926. Kappa = 1.966 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

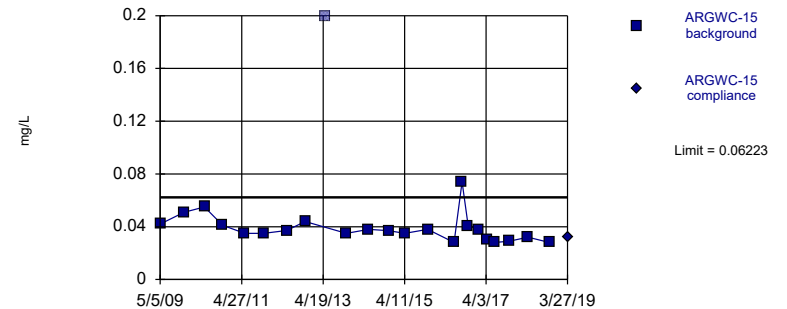


Background Data Summary: Mean=0.0302, Std. Dev.=0.002353, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9138, critical = 0.878. Kappa = 2.134 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

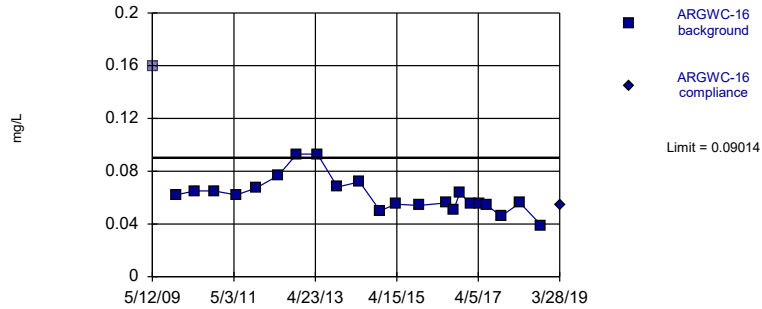


Background Data Summary (based on natural log transformation): Mean=-3.281, Std. Dev.=0.2364, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.878. Kappa = 2.134 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

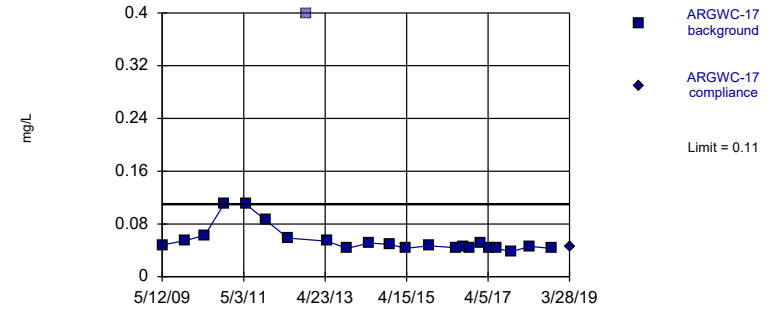


Background Data Summary: Mean=0.06175, Std. Dev.=0.0133, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9105, critical = 0.878. Kappa = 2.134 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

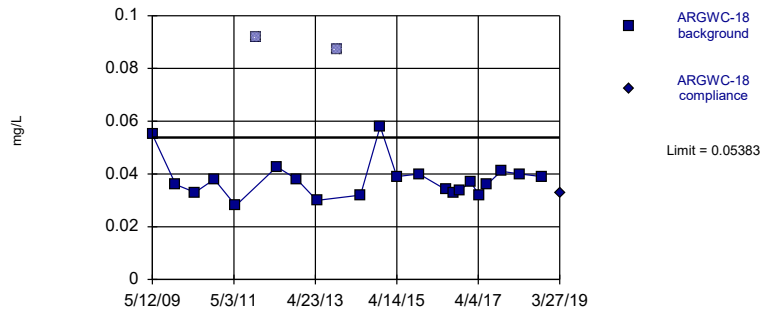


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. Well-constituent pair annual alpha = 0.007401. Individual comparison alpha = 0.003707 (1 of 2).

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

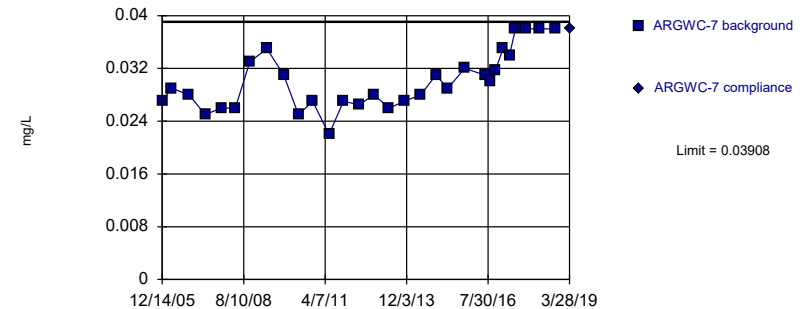


Background Data Summary (based on square root transformation): Mean=0.1939, Std. Dev.=0.01775, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8808, critical = 0.873. Kappa = 2.149 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

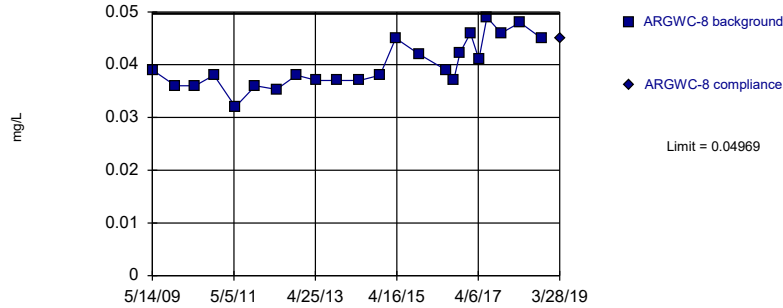


Background Data Summary: Mean=0.03007, Std. Dev.=0.004414, n=30. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.9. Kappa = 2.04 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

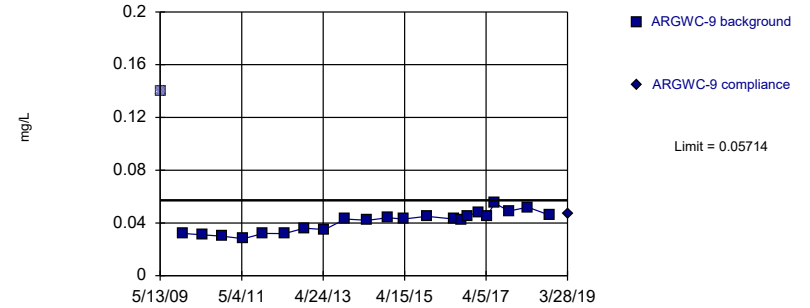


Background Data Summary: Mean=0.03998, Std. Dev.=0.004579, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9233, critical = 0.881. Kappa = 2.12 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

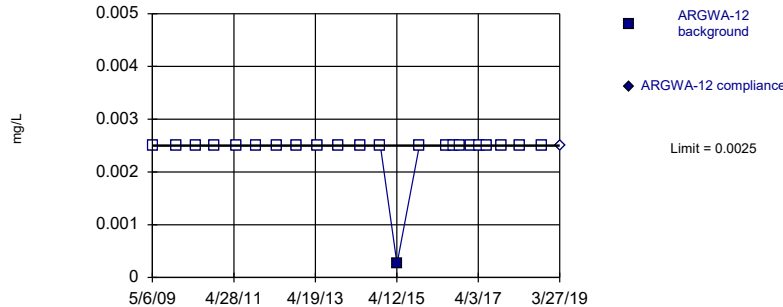


Background Data Summary: Mean=0.04084, Std. Dev.=0.007639, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9385, critical = 0.878. Kappa = 2.134 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Barium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

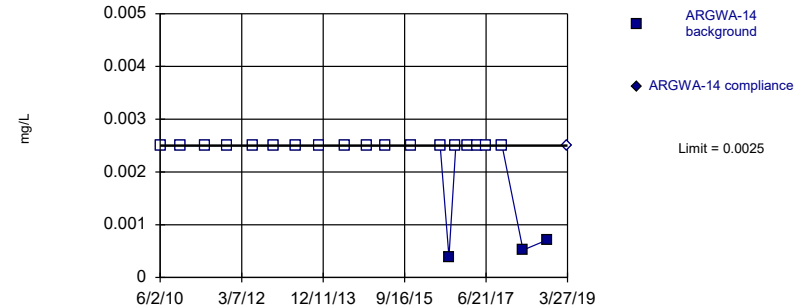


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

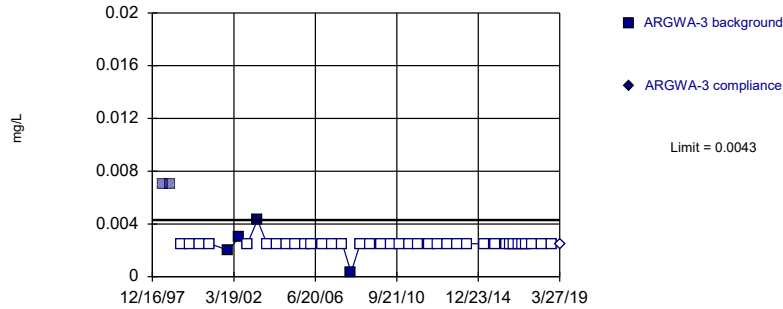


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

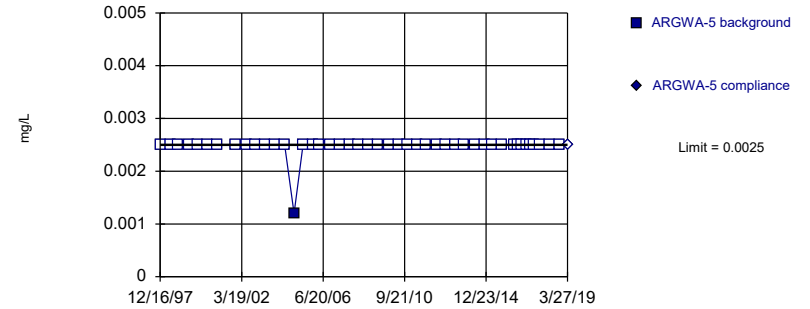


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 90.24% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:30 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

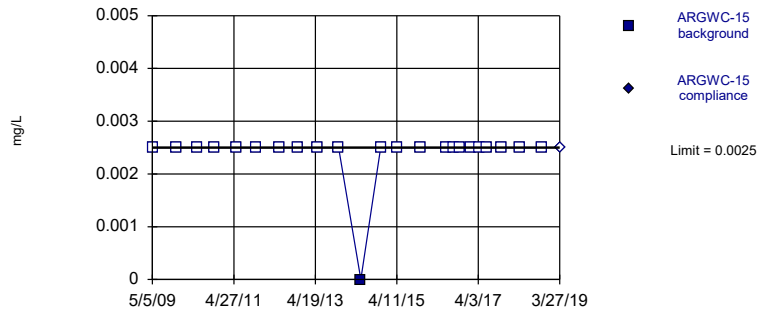


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 97.78% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

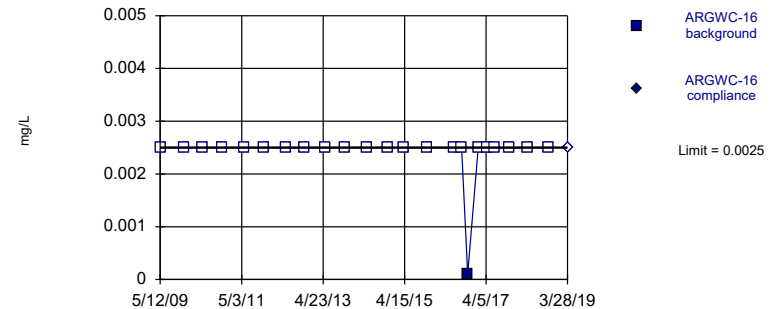


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

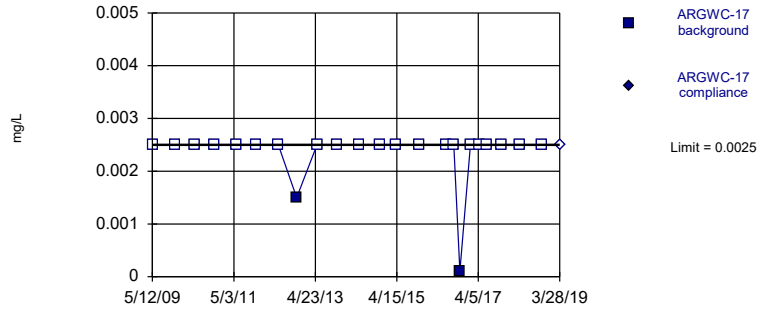


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

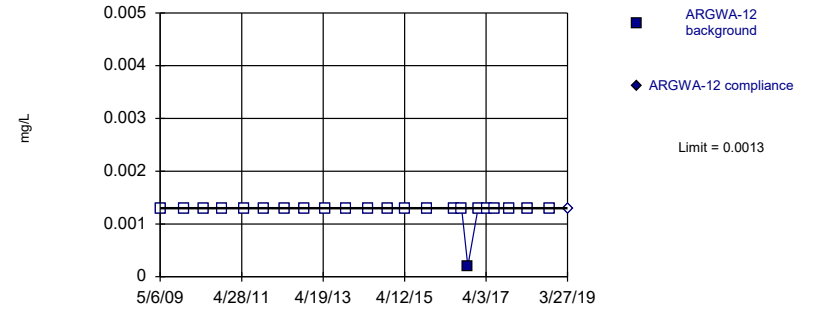


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

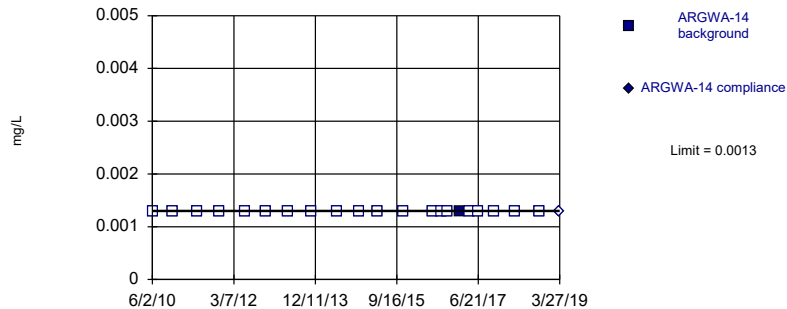


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

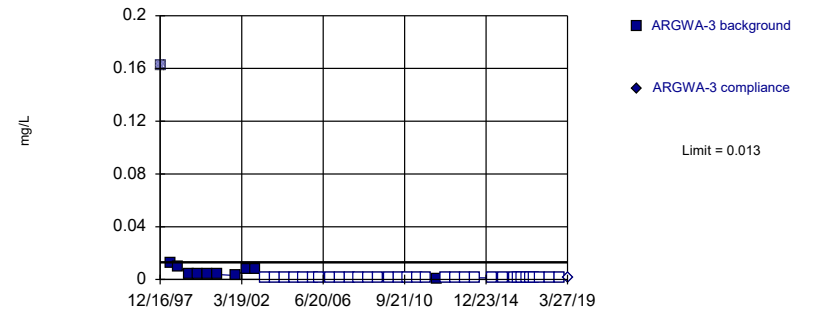


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 95.24% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

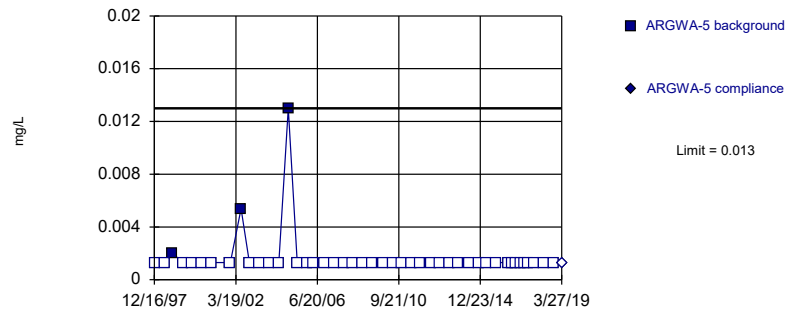


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 43 background values. 76.74% NDs. Well-constituent pair annual alpha = 0.002073. Individual comparison alpha = 0.001037 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

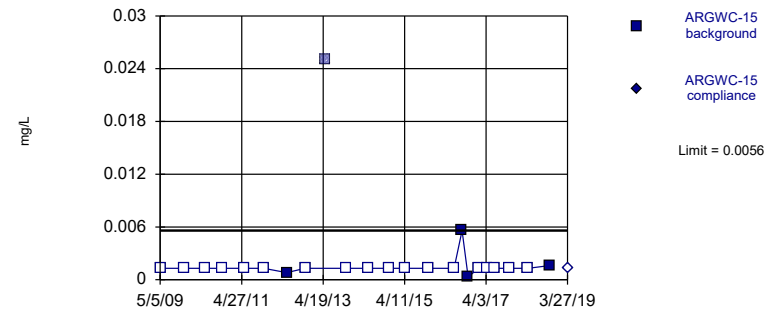


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

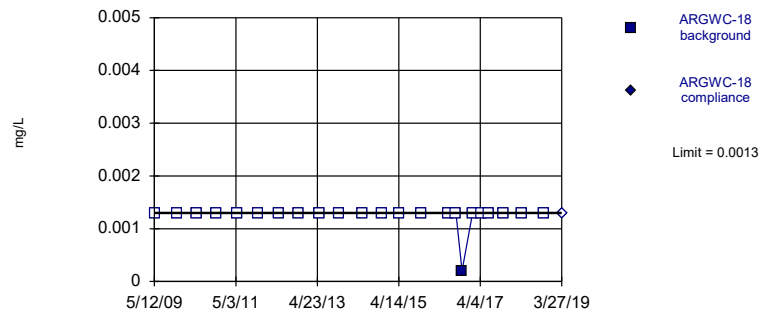


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.007401. Individual comparison alpha = 0.003707 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

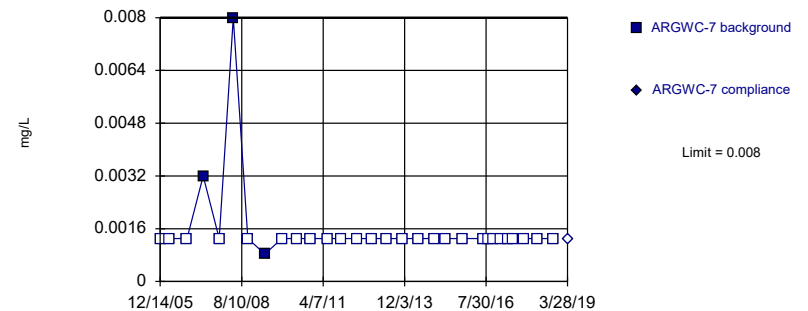


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

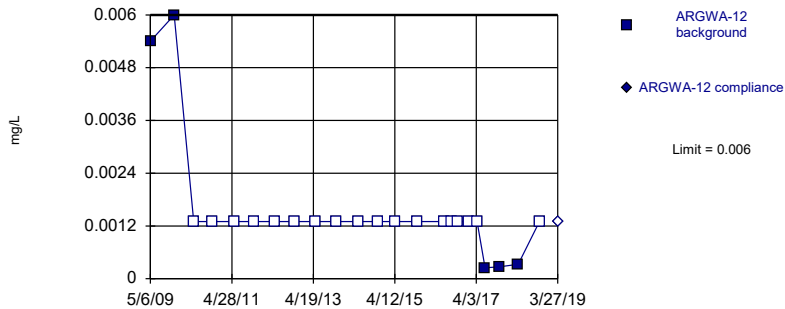


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 90% NDs. Well-constituent pair annual alpha = 0.004011. Individual comparison alpha = 0.002008 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

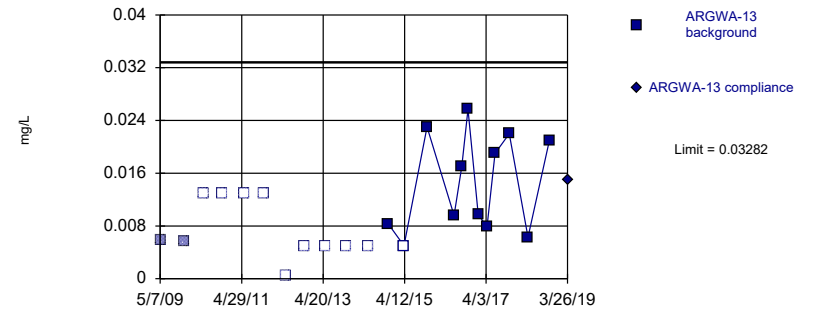


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 78.26% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Parametric

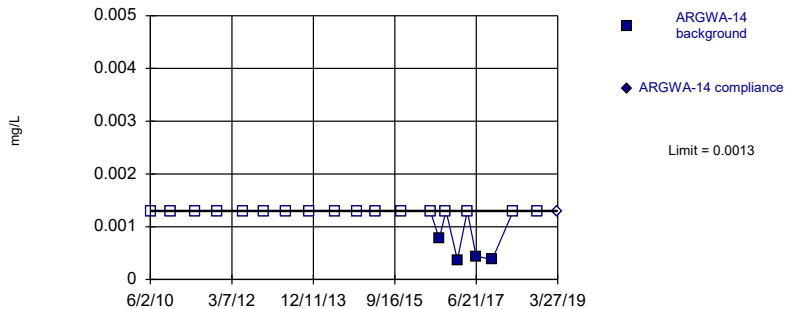


Background Data Summary: Mean=0.01454, Std. Dev.=0.007442, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8909, critical = 0.805. Kappa = 2.456 (c=6, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

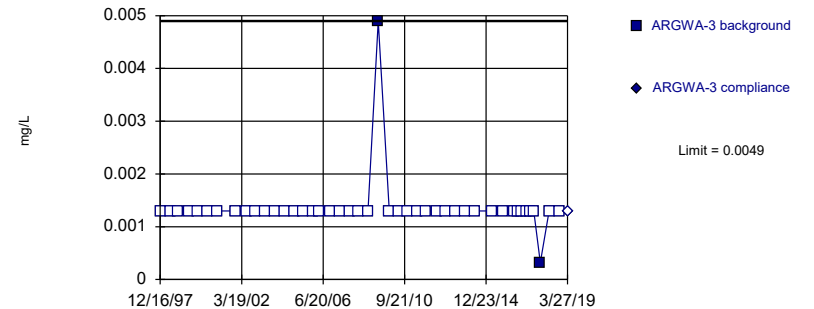


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 80.95% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

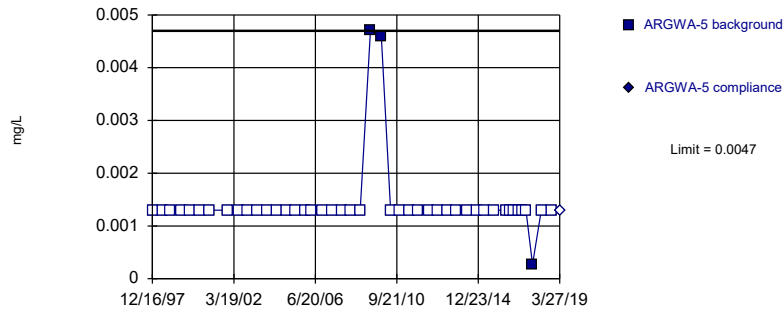


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 95.45% NDs. Well-constituent pair annual alpha = 0.001992. Individual comparison alpha = 0.0009963 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

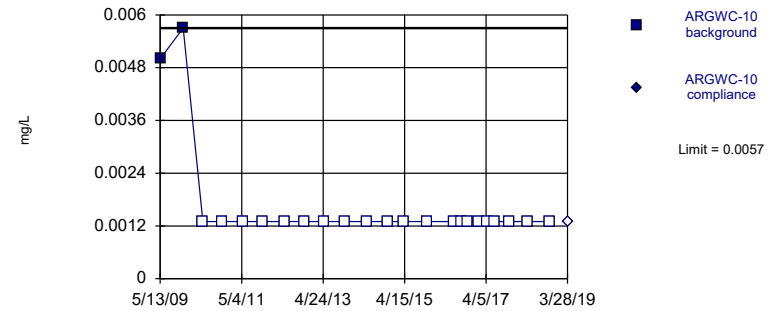


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 45 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.001911. Individual comparison alpha = 0.0009557 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

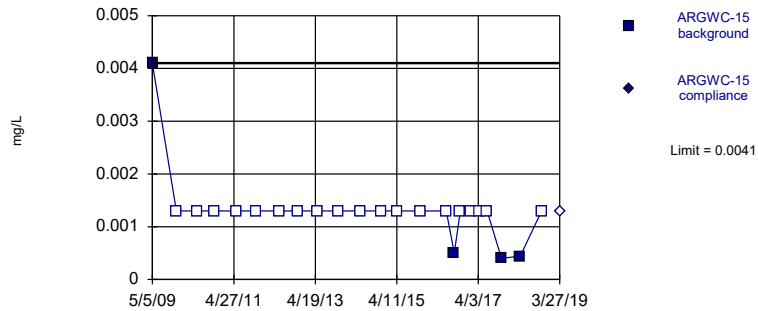


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

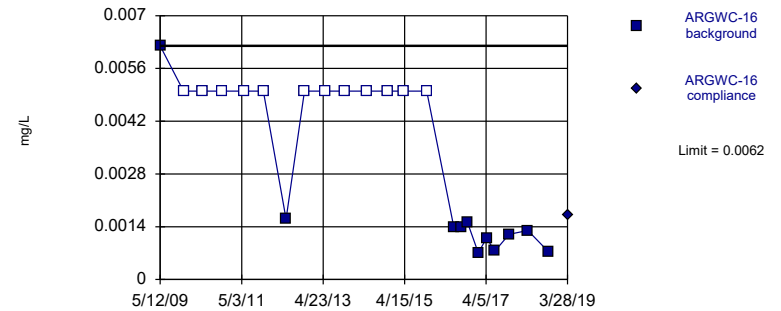


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 82.61% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

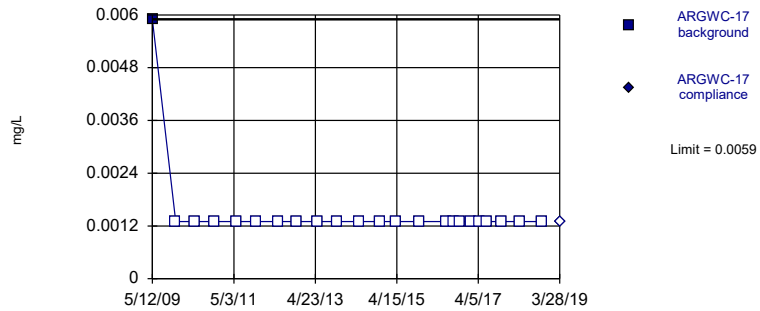


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 52.17% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

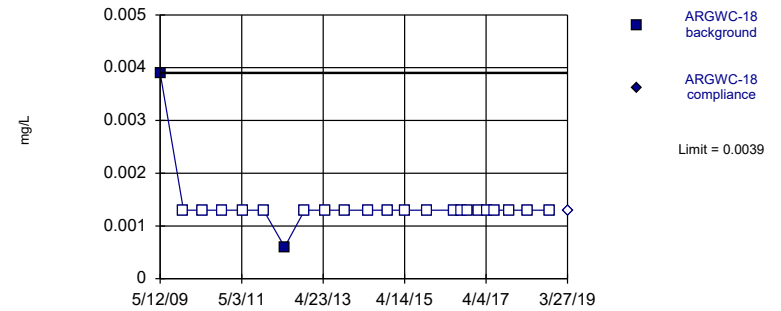


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

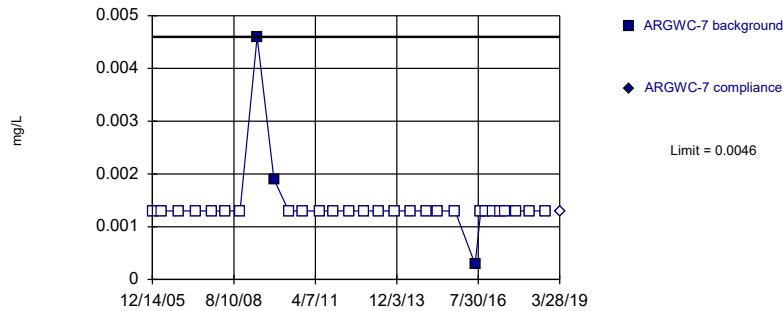


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

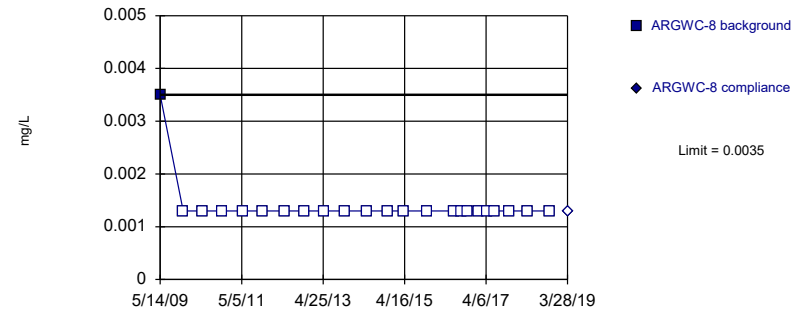


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 90% NDs. Well-constituent pair annual alpha = 0.004011. Individual comparison alpha = 0.002008 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

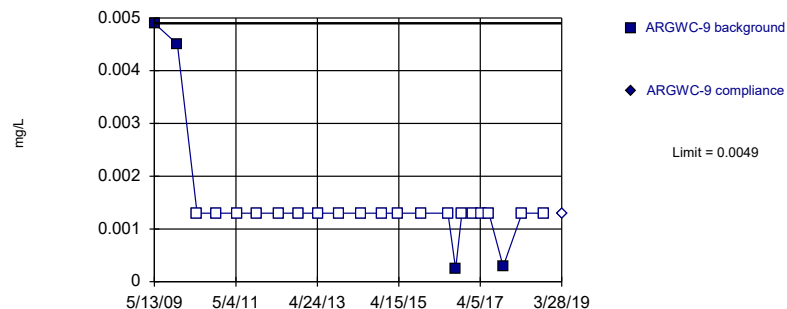


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

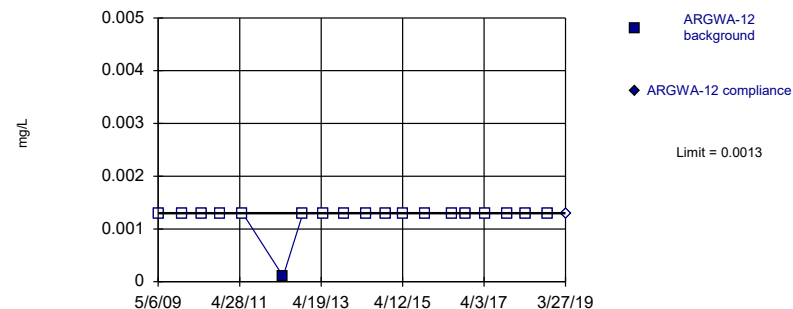


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 82.61% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

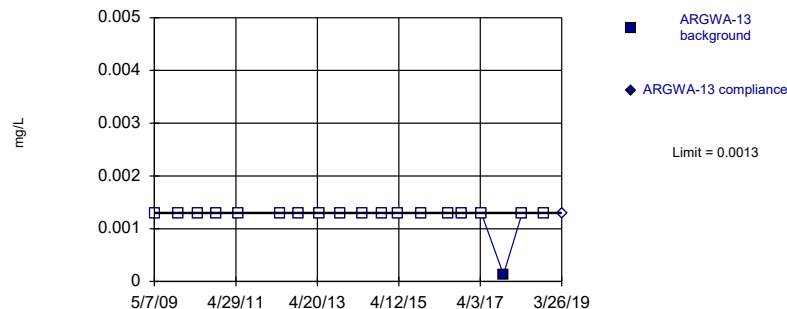


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

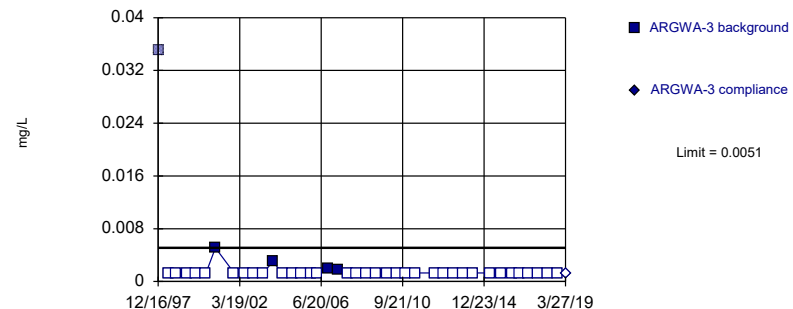


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

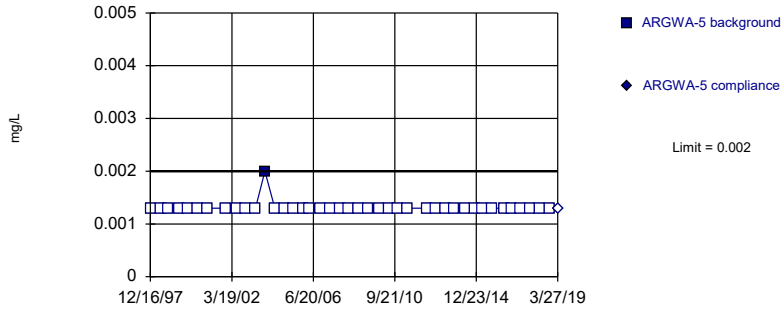


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 39 background values. 89.74% NDs. Well-constituent pair annual alpha = 0.002451. Individual comparison alpha = 0.001226 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

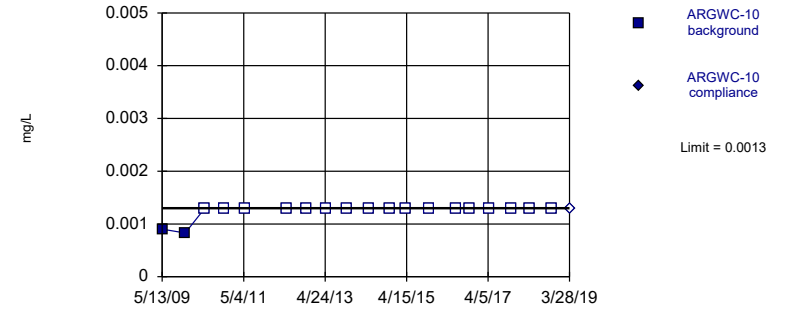


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 41 background values. 97.56% NDs. Well-constituent pair annual alpha = 0.002235. Individual comparison alpha = 0.001118 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

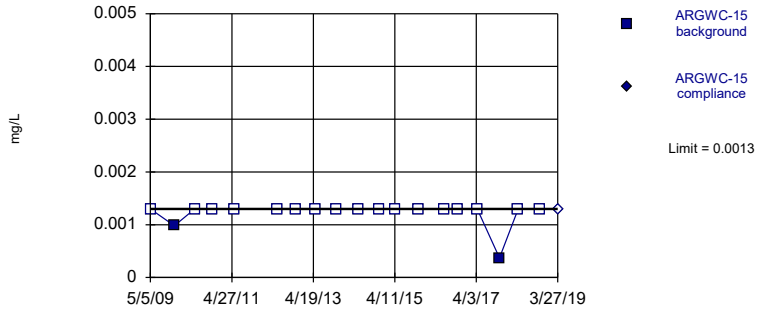


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

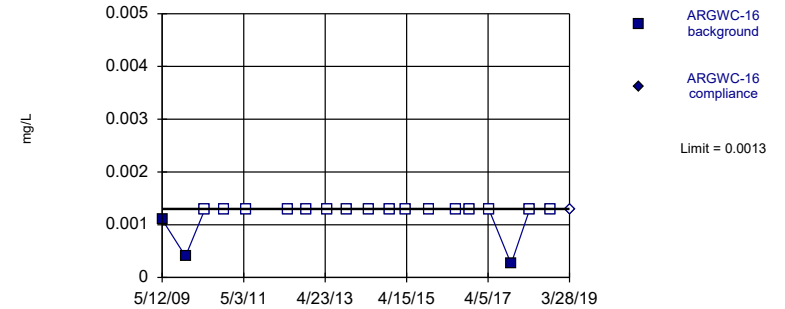


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit Intrawell Non-parametric

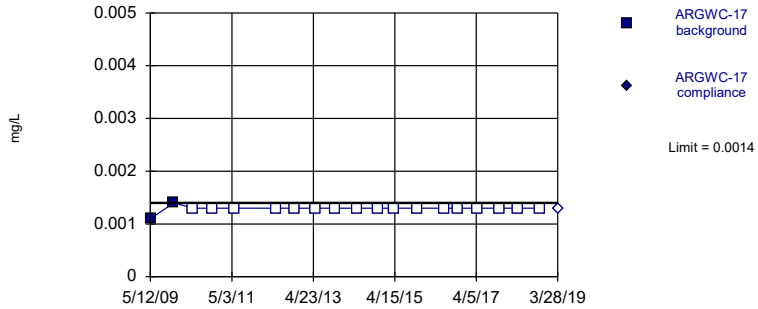


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 84.21% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

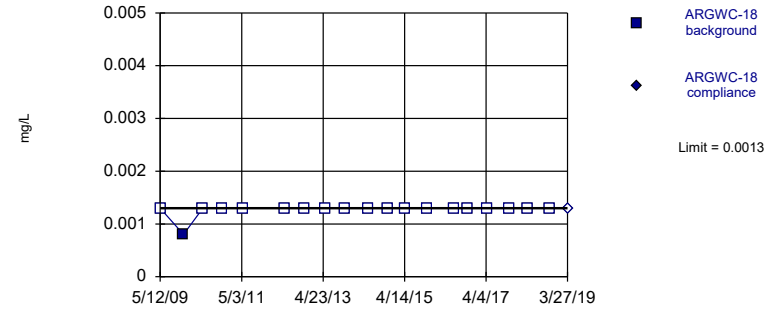


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:31 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

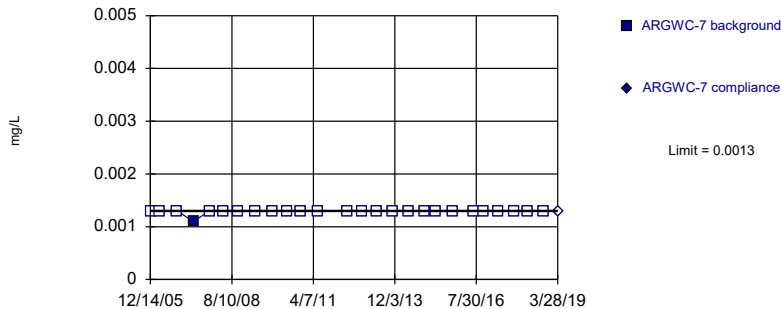


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:32 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric

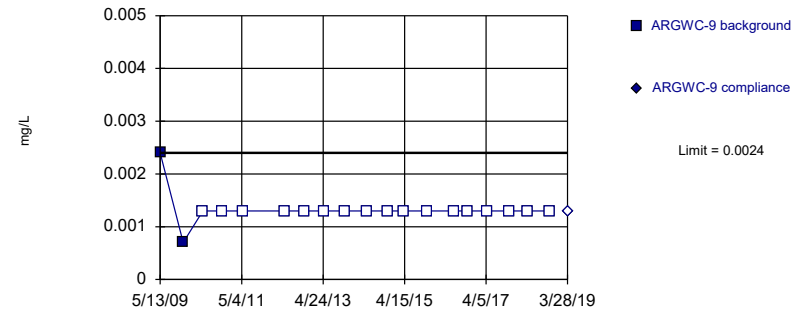


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 96.15% NDs. Well-constituent pair annual alpha = 0.005327. Individual comparison alpha = 0.002667 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:32 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 8/27/2019 4:32 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
12/16/1997							0.002	
6/30/1998							0.0006	
12/2/1998							0.0007	
6/8/1999							<0.0013	
12/7/1999							<0.0013	
6/15/2000							<0.0013	
12/12/2000							0.000475	
12/5/2001							<0.0013	
6/26/2002							0.000431	
12/3/2002							<0.0013	
6/11/2003							<0.0013	
12/10/2003							<0.0013	
6/15/2004							<0.0013	
12/14/2004							<0.0013	
6/2/2005							<0.0013	
12/14/2005							<0.0013	
4/5/2006							<0.0013	
10/30/2006							<0.0013	
5/10/2007							0.0044	
11/17/2007							<0.0013	
5/3/2008							<0.0013	
10/22/2008							<0.0013	
5/6/2009	<0.0013							
5/7/2009			0.0013				0.0028	
12/3/2009	<0.0013		<0.0013					
12/4/2009							<0.0013	
5/25/2010	<0.0013		<0.0013					
6/1/2010							<0.0013	
6/2/2010					<0.0013			
11/9/2010	<0.0013							
11/10/2010			<0.0013		<0.0013		<0.0013	
5/19/2011					<0.0013			
5/24/2011	<0.0013							
5/25/2011			<0.0013				<0.0013	
11/9/2011					<0.0013			
11/10/2011	<0.0013		<0.0013					
11/12/2011							<0.0013	
5/18/2012	<0.0013							
5/30/2012			<0.0013		0.0026 (J)			
5/31/2012							<0.0013	
11/9/2012	<0.0013		<0.0013					
11/11/2012					<0.0013		<0.0013	
5/8/2013	<0.0013							
5/9/2013			<0.0013		<0.0013			
5/13/2013							<0.0013	
11/6/2013	<0.0013							
11/11/2013			<0.0013		<0.0013			
11/12/2013							<0.0013	
5/20/2014	<0.0013							
5/21/2014			<0.0013					
5/29/2014					0.005 (J)		<0.0013	
11/18/2014	<0.0013		<0.0013					

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
11/19/2014					<0.0013			
4/7/2015			<0.0013					
4/14/2015	<0.0013				<0.0013		<0.0013	
10/28/2015			<0.0013					
10/29/2015	<0.0013							
11/3/2015							<0.0013	
11/4/2015					<0.0013			
6/23/2016	<0.0013		<0.0013		0.0026		<0.0013	
8/30/2016	<0.0013							
8/31/2016			<0.0013		0.0032		<0.0013	
10/24/2016	<0.0013							
10/25/2016			<0.0013		<0.0013		<0.0013	
1/23/2017	<0.0013				0.00088 (J)			
1/24/2017			<0.0013				<0.0013	
4/11/2017	0.00076 (J)		0.00063 (J)		0.00095 (J)		0.00067 (J)	
6/20/2017					0.00099 (J)		0.00064 (J)	
6/21/2017	<0.0013		<0.0013					
10/25/2017	<0.0013		<0.0013		<0.0013		<0.0013	
4/9/2018			<0.0013		<0.0013			
4/10/2018	<0.0013						<0.0013	
10/16/2018	<0.0013		0.00055 (J)		0.00083 (J)		<0.0013	
3/26/2019				0.00089 (J)				
3/27/2019		0.00049 (J)				0.0013		0.00055 (J)

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
12/16/1997	<0.0013							
6/30/1998	<0.0013							
12/2/1998	<0.0013							
6/8/1999	<0.0013							
12/7/1999	<0.0013							
6/15/2000	<0.0013							
12/12/2000	0.00032							
12/5/2001	0.0003							
6/26/2002	0.000939							
12/3/2002	<0.0013							
6/11/2003	<0.0013							
12/10/2003	<0.0013							
6/15/2004	<0.0013							
12/14/2004	<0.0013							
6/2/2005	<0.0013							
12/14/2005	<0.0013							
4/5/2006	<0.0013							
10/30/2006	<0.0013							
5/10/2007	<0.0013							
11/17/2007	<0.0013							
5/3/2008	<0.0013							
10/22/2008	<0.0013							
5/5/2009					<0.0013			
5/6/2009	<0.0013							
5/12/2009							0.003	
5/13/2009			0.0042					
12/1/2009	<0.0013							
12/3/2009			<0.0013					
12/4/2009					<0.0013			
12/5/2009							<0.0013	
5/25/2010	<0.0013							
5/26/2010			<0.0013				<0.0013	
6/1/2010					<0.0013			
11/9/2010	<0.0013		<0.0013				<0.0013	
11/10/2010					<0.0013			
5/19/2011			<0.0013					
5/24/2011	<0.0013						<0.0013	
5/25/2011					<0.0013			
11/9/2011					<0.0013			
11/10/2011	<0.0013							
11/11/2011			<0.0013					
11/12/2011							<0.0013	
5/17/2012			<0.0013					
5/18/2012	<0.0013							
5/30/2012							<0.0013	
5/31/2012					<0.0013			
11/9/2012	<0.0013		<0.0013				<0.0013	
11/10/2012					<0.0013			
5/7/2013			<0.0013					
5/8/2013	<0.0013							
5/13/2013					<0.0013		<0.0013	
11/6/2013	<0.0013		<0.0013				<0.0013	

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
11/12/2013					<0.0013			
5/20/2014	<0.0013		<0.0013					
5/21/2014							<0.0013	
5/28/2014					<0.0013			
11/17/2014	<0.0013						<0.0013	
11/18/2014			<0.0013					
11/20/2014					<0.0013			
4/7/2015	<0.0013		<0.0013				<0.0013	
4/14/2015					<0.0013			
10/28/2015	<0.0013		<0.0013				<0.0013	
11/3/2015					<0.0013			
6/23/2016	<0.0013		<0.0013		<0.0013			
6/24/2016							<0.0013	
8/30/2016	<0.0013							
9/1/2016			<0.0013				<0.0013	
9/2/2016					0.00062 (J)			
10/25/2016	<0.0013		<0.0013				<0.0013	
10/26/2016					<0.0013			
1/24/2017	<0.0013							
1/26/2017					<0.0013		<0.0013	
1/27/2017			<0.0013					
4/11/2017	0.00077 (J)						0.00067 (J)	
4/12/2017			<0.0013		<0.0013			
6/20/2017	0.00052 (J)							
6/21/2017					<0.0013		<0.0013	
6/22/2017			<0.0013					
10/25/2017	<0.0013							
10/26/2017			<0.0013		<0.0013		<0.0013	
4/10/2018	<0.0013				<0.0013		<0.0013	
4/11/2018			<0.0013					
10/16/2018	<0.0013						<0.0013	
10/17/2018			<0.0013		<0.0013			
3/27/2019		0.00055 (J)				<0.0013		
3/28/2019				0.0011 (J)				0.00057 (J)

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8
12/14/2005					<0.0013			
4/5/2006					<0.0013			
10/30/2006					<0.0013			
5/10/2007					<0.0013			
11/17/2007					<0.0013			
5/2/2008					<0.0013			
10/22/2008					<0.0013			
5/12/2009	<0.0013		0.0025					
5/14/2009					<0.0013		<0.0013	
12/1/2009					<0.0013			
12/3/2009							<0.0013	
12/4/2009	<0.0013		<0.0013					
5/25/2010	<0.0013		<0.0013					
5/26/2010					<0.0013		<0.0013	
11/9/2010	<0.0013						<0.0013	
11/10/2010			<0.0013		<0.0013			
5/18/2011							<0.0013	
5/19/2011			<0.0013					
5/24/2011	<0.0013							
5/25/2011					<0.0013			
11/11/2011					<0.0013		<0.0013	
11/12/2011	<0.0013		<0.0013					
5/17/2012			<0.0013		<0.0013		<0.0013	
5/30/2012	<0.0013							
11/9/2012					<0.0013		<0.0013	
11/10/2012			<0.0013					
5/7/2013			<0.0013				<0.0013	
5/8/2013	<0.0013				<0.0013			
11/5/2013			<0.0013		<0.0013		<0.0013	
11/6/2013	<0.0013							
5/20/2014	<0.0013							
5/21/2014					<0.0013		<0.0013	
5/28/2014			<0.0013					
11/17/2014	<0.0013				<0.0013			
11/18/2014							<0.0013	
11/19/2014			<0.0013					
4/7/2015	<0.0013				<0.0013		<0.0013	
4/15/2015			<0.0013					
10/28/2015	<0.0013				<0.0013		<0.0013	
10/29/2015			<0.0013					
6/23/2016					<0.0013		<0.0013	
6/24/2016	<0.0013		<0.0013					
8/31/2016					<0.0013		<0.0013	
9/1/2016	<0.0013		<0.0013					
10/25/2016	<0.0013				<0.0013			
10/26/2016			<0.0013				<0.0013	
1/26/2017	<0.0013				<0.0013		<0.0013	
1/27/2017			<0.0013					
4/11/2017	0.00084 (J)							
4/12/2017			<0.0013		0.00078 (J)		0.00072 (J)	
6/21/2017	<0.0013		<0.0013				<0.0013	
6/22/2017					<0.0013			

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8
10/25/2017			<0.0013		<0.0013			
10/26/2017	0.00087 (J)						<0.0013	
4/10/2018	<0.0013				<0.0013			
4/11/2018			<0.0013				<0.0013	
10/17/2018	<0.0013		0.00066 (J)		<0.0013		0.00063 (J)	
3/27/2019				<0.0013				
3/28/2019		<0.0013				<0.0013		<0.0013

Prediction Limit

Constituent: Arsenic, Barium Analysis Run 8/27/2019 4:35 PM View: IntraWell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14
5/6/2009			0.065					
5/7/2009					0.068			
5/13/2009	0.0034							
12/3/2009	<0.0013		0.062		0.044			
5/25/2010					0.049			
5/26/2010	<0.0013							
6/2/2010							0.046	
11/9/2010	<0.0013		0.059					
11/10/2010					0.052		0.057	
5/19/2011	<0.0013						0.048	
5/24/2011			0.054					
5/25/2011					0.045			
11/9/2011							0.045	
11/10/2011			0.063		0.11			
11/11/2011	<0.0013							
5/17/2012	<0.0013							
5/18/2012			0.0646					
5/30/2012					0.0831		0.0519	
11/9/2012	<0.0013		0.081		0.13			
11/11/2012							0.051	
5/7/2013	<0.0013							
5/8/2013			0.066					
5/9/2013					0.059		0.056	
11/6/2013	<0.0013		0.074					
11/11/2013					0.12		0.041	
5/20/2014			0.057					
5/21/2014	<0.0013				0.073			
5/29/2014							0.051	
11/18/2014	<0.0013		0.069		0.072			
11/19/2014							0.051	
4/7/2015	<0.0013				0.06			
4/14/2015			0.067				0.043	
10/28/2015	<0.0013				0.057			
10/29/2015			0.069					
11/4/2015							0.042	
6/23/2016	<0.0013		0.063		0.036			
8/30/2016			0.062					
8/31/2016	<0.0013				0.041		0.076	
10/24/2016			0.0674					
10/25/2016	<0.0013				0.0429		0.039	
1/23/2017			0.069				0.044	
1/24/2017					0.025			
1/26/2017	<0.0013							
4/11/2017			0.064		0.024		0.038	
4/12/2017	<0.0013							
6/20/2017							0.057	
6/21/2017			0.074		0.034			
6/22/2017	<0.0013							
10/25/2017	<0.0013		0.07		0.03		0.05	
4/9/2018					0.023		0.049	
4/10/2018			0.073					
4/11/2018	<0.0013							

Prediction Limit

Constituent: Arsenic, Barium Analysis Run 8/27/2019 4:35 PM View: IntraWell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14
10/16/2018			0.069		0.028		0.06	
10/17/2018	<0.0013							
3/26/2019						0.029		
3/27/2019				0.063				0.054
3/28/2019		0.00051 (J)						

Prediction Limit

Constituent: Barium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15
12/16/1997			0.032					
6/30/1998	0.177		0.028					
12/2/1998	0.115		0.032					
6/8/1999	0.074		0.0287					
12/7/1999	0.043		0.034					
6/15/2000	0.113		0.034					
12/12/2000	0.059		0.027					
12/5/2001	0.052		0.027					
6/26/2002	0.087		0.032					
12/3/2002	0.043		0.023					
6/11/2003	0.24		0.04					
12/10/2003	0.03		0.024					
6/15/2004	0.028		0.021					
12/14/2004	0.017		0.025					
6/2/2005	0.019		0.025					
12/14/2005	0.02		0.026					
4/5/2006	0.019		0.027					
10/30/2006			0.027					
5/10/2007	0.017		0.024					
11/17/2007	0.015		0.026					
5/3/2008	0.017		0.022					
10/22/2008	0.11		0.027					
5/5/2009							0.042	
5/6/2009			0.023					
5/7/2009	0.13							
12/1/2009			0.033					
12/3/2009					0.03			
12/4/2009	0.019						0.051	
5/25/2010			0.03					
5/26/2010					0.029			
6/1/2010	0.027						0.055	
11/9/2010			0.033		0.029			
11/10/2010	0.025						0.041	
5/19/2011					0.027			
5/24/2011			0.027					
5/25/2011	0.015						0.035	
11/9/2011							0.035	
11/10/2011			0.032					
11/11/2011					0.031			
11/12/2011	0.021							
5/17/2012					0.0299			
5/18/2012			0.0311					
5/31/2012	0.0222						0.0372	
11/9/2012			0.034		0.03			
11/10/2012							0.044	
11/11/2012	0.022							
5/7/2013					0.028			
5/8/2013			0.026					
5/13/2013	0.019							
11/6/2013			0.028		0.033			
11/12/2013	0.025						0.035	
5/20/2014			0.027		0.029			

Prediction Limit

Constituent: Barium Analysis Run 8/27/2019 4:35 PM View: Inrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15
5/28/2014							0.038	
5/29/2014	0.024							
11/17/2014			0.029					
11/18/2014					0.029			
11/20/2014							0.037	
4/7/2015			0.024		0.028			
4/14/2015	0.022						0.035	
10/28/2015			0.028		0.029			
11/3/2015	0.022						0.038	
6/23/2016	0.019		0.025		0.028		0.028	
8/30/2016			0.026					
8/31/2016	0.018							
9/1/2016					0.027			
9/2/2016							0.074	
10/25/2016	0.016		0.0293		0.0296			
10/26/2016							0.0408	
1/24/2017	0.017		0.028					
1/26/2017							0.038	
1/27/2017					0.035			
4/11/2017	0.016		0.024					
4/12/2017					0.031		0.03	
6/20/2017	0.02		0.027					
6/21/2017							0.028	
6/22/2017					0.035			
10/25/2017	0.019		0.03					
10/26/2017					0.032		0.029	
4/10/2018	0.019		0.028				0.032	
4/11/2018					0.034			
10/16/2018	0.018		0.027					
10/17/2018					0.031		0.028	
3/27/2019		0.019		0.024				0.032
3/28/2019						0.031		

Prediction Limit

Constituent: Barium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7
12/14/2005							0.027	
4/5/2006							0.029	
10/30/2006							0.028	
5/10/2007							0.025	
11/17/2007							0.026	
5/2/2008							0.026	
10/22/2008							0.033	
5/12/2009			0.048		0.055			
5/14/2009							0.035	
12/1/2009							0.031	
12/4/2009			0.055		0.036			
12/5/2009	0.062							
5/25/2010			0.063		0.033			
5/26/2010	0.065						0.025	
11/9/2010	0.065		0.11					
11/10/2010					0.038		0.027	
5/19/2011					0.028			
5/24/2011	0.062		0.11					
5/25/2011							0.022	
11/11/2011							0.027	
11/12/2011	0.067		0.086					
5/17/2012					0.0427		0.0265	
5/30/2012	0.0767		0.0586					
11/9/2012	0.093						0.028	
11/10/2012					0.038			
5/7/2013					0.03			
5/8/2013			0.054				0.026	
5/13/2013	0.093							
11/5/2013							0.027	
11/6/2013	0.068		0.043					
5/20/2014			0.051					
5/21/2014	0.072						0.028	
5/28/2014					0.032			
11/17/2014	0.05		0.049				0.031	
11/19/2014					0.058			
4/7/2015	0.055		0.043				0.029	
4/15/2015					0.039			
10/28/2015	0.054		0.047				0.032	
10/29/2015					0.04			
6/23/2016							0.031	
6/24/2016	0.056		0.044		0.034			
8/31/2016							0.03	
9/1/2016	0.051		0.046		0.033			
10/25/2016	0.0637		0.0436				0.0317	
10/26/2016					0.0339			
1/26/2017	0.055		0.051				0.035	
1/27/2017					0.037			
4/11/2017	0.055		0.043					
4/12/2017					0.032		0.034	
6/21/2017	0.054		0.043		0.036			
6/22/2017							0.038	
10/25/2017					0.041		0.038	

Prediction Limit

Constituent: Barium Analysis Run 8/27/2019 4:35 PM View: Inrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7
10/26/2017	0.046		0.038					
4/10/2018	0.056		0.046				0.038	
4/11/2018					0.04			
10/16/2018	0.039							
10/17/2018			0.043		0.039		0.038	
3/27/2019						0.033		
3/28/2019		0.054		0.045				0.038

Prediction Limit

Constituent: Barium, Cadmium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-14	ARGWA-14
5/6/2009					<0.0025			
5/14/2009	0.039							
12/3/2009	0.036		0.032		<0.0025			
5/25/2010					<0.0025			
5/26/2010	0.036		0.031					
6/2/2010							<0.0025	
11/9/2010	0.038		0.03		<0.0025			
11/10/2010							<0.0025	
5/18/2011	0.032							
5/19/2011			0.028				<0.0025	
5/24/2011					<0.0025			
11/9/2011							<0.0025	
11/10/2011					<0.0025			
11/11/2011	0.036		0.032					
5/17/2012	0.0353		0.0319					
5/18/2012					<0.0025			
5/30/2012							<0.0025	
11/9/2012	0.038		0.036		<0.0025			
11/11/2012							<0.0025	
5/7/2013	0.037		0.035					
5/8/2013					<0.0025			
5/9/2013							<0.0025	
11/5/2013	0.037							
11/6/2013			0.043		<0.0025			
11/11/2013							<0.0025	
5/20/2014					<0.0025			
5/21/2014	0.037		0.042					
5/29/2014							<0.0025	
11/18/2014	0.038		0.044		<0.0025			
11/19/2014							<0.0025	
4/7/2015	0.045		0.043					
4/14/2015					0.00026		<0.0025	
10/28/2015	0.042		0.045					
10/29/2015					<0.0025			
11/4/2015							<0.0025	
6/23/2016	0.039		0.043		<0.0025		<0.0025	
8/30/2016					<0.0025			
8/31/2016	0.037		0.042				0.00039 (J)	
10/24/2016					<0.0025			
10/25/2016			0.0455				<0.0025	
10/26/2016	0.0423							
1/23/2017					<0.0025		<0.0025	
1/26/2017	0.046		0.048					
4/11/2017					<0.0025		<0.0025	
4/12/2017	0.041		0.045					
6/20/2017							<0.0025	
6/21/2017	0.049				<0.0025			
6/22/2017			0.055					
10/25/2017			0.049		<0.0025		<0.0025	
10/26/2017	0.046							
4/9/2018							0.00052 (J)	
4/10/2018					<0.0025			

Prediction Limit

Constituent: Barium, Cadmium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-8	ARGWC-8	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-14	ARGWA-14
4/11/2018	0.048		0.052					
10/16/2018					<0.0025		0.00071 (J)	
10/17/2018	0.045		0.046					
3/27/2019						<0.0025		<0.0025
3/28/2019		0.045		0.047				

Prediction Limit

Constituent: Cadmium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
12/16/1997			<0.0025					
6/30/1998			<0.0025					
12/2/1998			<0.0025					
6/8/1999	<0.0025		<0.0025					
12/7/1999	<0.0025		<0.0025					
6/15/2000	<0.0025		<0.0025					
12/12/2000	<0.0025		<0.0025					
12/5/2001	0.002		<0.0025					
6/26/2002	0.003		<0.0025					
12/3/2002	<0.0025		<0.0025					
6/11/2003	0.0043		<0.0025					
12/10/2003	<0.0025		<0.0025					
6/15/2004	<0.0025		<0.0025					
12/14/2004	<0.0025		0.0012					
6/2/2005	<0.0025		<0.0025					
12/14/2005	<0.0025		<0.0025					
4/5/2006	<0.0025		<0.0025					
10/30/2006	<0.0025		<0.0025					
5/10/2007	<0.0025		<0.0025					
11/17/2007	<0.0025		<0.0025					
5/3/2008	0.00033		<0.0025					
10/22/2008	<0.0025		<0.0025					
5/5/2009					<0.0025			
5/6/2009			<0.0025					
5/7/2009	<0.0025							
5/12/2009							<0.0025	
12/1/2009			<0.0025					
12/4/2009	<0.0025				<0.0025			
12/5/2009							<0.0025	
5/25/2010			<0.0025					
5/26/2010							<0.0025	
6/1/2010	<0.0025				<0.0025			
11/9/2010			<0.0025				<0.0025	
11/10/2010	<0.0025				<0.0025			
5/24/2011			<0.0025				<0.0025	
5/25/2011	<0.0025				<0.0025			
11/9/2011					<0.0025			
11/10/2011			<0.0025					
11/12/2011	<0.0025						<0.0025	
5/18/2012			<0.0025					
5/30/2012							<0.0025	
5/31/2012	<0.0025				<0.0025			
11/9/2012			<0.0025				<0.0025	
11/10/2012					<0.0025			
11/11/2012	<0.0025							
5/8/2013			<0.0025					
5/13/2013	<0.0025				<0.0025		<0.0025	
11/6/2013			<0.0025				<0.0025	
11/12/2013	<0.0025				<0.0025			
5/20/2014			<0.0025					
5/21/2014							<0.0025	
5/28/2014					0			

Prediction Limit

Constituent: Cadmium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
5/29/2014	<0.0025							
11/17/2014			<0.0025				<0.0025	
11/20/2014					<0.0025			
4/7/2015			<0.0025				<0.0025	
4/14/2015	<0.0025				<0.0025			
10/28/2015			<0.0025				<0.0025	
11/3/2015	<0.0025				<0.0025			
6/23/2016	<0.0025		<0.0025		<0.0025			
6/24/2016							<0.0025	
8/30/2016			<0.0025					
8/31/2016	<0.0025							
9/1/2016							<0.0025	
9/2/2016					<0.0025			
10/25/2016	<0.0025		<0.0025				0.0001 (J)	
10/26/2016					<0.0025			
1/24/2017	<0.0025		<0.0025					
1/26/2017					<0.0025		<0.0025	
4/11/2017	<0.0025		<0.0025				<0.0025	
4/12/2017					<0.0025			
6/20/2017	<0.0025		<0.0025					
6/21/2017					<0.0025		<0.0025	
10/25/2017	<0.0025		<0.0025					
10/26/2017					<0.0025		<0.0025	
4/10/2018	<0.0025		<0.0025		<0.0025		<0.0025	
10/16/2018	<0.0025		<0.0025				<0.0025	
10/17/2018					<0.0025			
3/27/2019		<0.0025		<0.0025		<0.0025		
3/28/2019							<0.0025	

Prediction Limit

Constituent: Cadmium, Lead Analysis Run 8/27/2019 4:35 PM View: IntraWell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWA-12	ARGWA-12	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
6/30/1998							0.013	
12/2/1998							0.01	
6/8/1999							0.004	
12/7/1999							0.004	
6/15/2000							0.004	
12/12/2000							0.00378	
12/5/2001							0.003	
6/26/2002							0.00815	
12/3/2002							0.008	
6/11/2003							<0.0013	
12/10/2003							<0.0013	
6/15/2004							<0.0013	
12/14/2004							<0.0013	
6/2/2005							<0.0013	
12/14/2005							<0.0013	
4/5/2006							<0.0013	
10/30/2006							<0.0013	
5/10/2007							<0.0013	
11/17/2007							<0.0013	
5/3/2008							<0.0013	
10/22/2008							<0.0013	
5/6/2009			<0.0013					
5/7/2009							<0.0013	
5/12/2009	<0.0025							
12/3/2009			<0.0013					
12/4/2009	<0.0025						<0.0013	
5/25/2010	<0.0025		<0.0013					
6/1/2010							<0.0013	
6/2/2010					<0.0013			
11/9/2010	<0.0025		<0.0013					
11/10/2010					<0.0013		<0.0013	
5/19/2011					<0.0013			
5/24/2011	<0.0025		<0.0013					
5/25/2011							<0.0013	
11/9/2011					<0.0013			
11/10/2011			<0.0013					
11/12/2011	<0.0025						<0.0013	
5/18/2012			<0.0013					
5/30/2012	<0.0025				<0.0013			
5/31/2012							0.0005 (J)	
11/9/2012	0.0015		<0.0013					
11/11/2012					<0.0013		<0.0013	
5/8/2013	<0.0025		<0.0013					
5/9/2013					<0.0013			
5/13/2013							<0.0013	
11/6/2013	<0.0025		<0.0013					
11/11/2013					<0.0013			
11/12/2013							<0.0013	
5/20/2014	<0.0025		<0.0013					
5/29/2014					<0.0013		<0.0013	
11/17/2014	<0.0025							
11/18/2014			<0.0013					

Prediction Limit

Constituent: Cadmium, Lead Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWA-12	ARGWA-12	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
11/19/2014					<0.0013			
4/7/2015	<0.0025							
4/14/2015			<0.0013		<0.0013		<0.0013	
10/28/2015	<0.0025							
10/29/2015			<0.0013					
11/3/2015							<0.0013	
11/4/2015					<0.0013			
6/23/2016			<0.0013		<0.0013		<0.0013	
6/24/2016	<0.0025							
8/30/2016			<0.0013					
8/31/2016					<0.0013		<0.0013	
9/1/2016	<0.0025							
10/24/2016			0.0002 (J)					
10/25/2016	0.0001 (J)				<0.0013		<0.0013	
1/23/2017			<0.0013		0.0013			
1/24/2017							<0.0013	
1/26/2017	<0.0025							
4/11/2017	<0.0025		<0.0013		<0.0013		<0.0013	
6/20/2017					<0.0013		<0.0013	
6/21/2017	<0.0025		<0.0013					
10/25/2017			<0.0013		<0.0013		<0.0013	
10/26/2017	<0.0025							
4/9/2018					<0.0013			
4/10/2018	<0.0025		<0.0013				<0.0013	
10/16/2018			<0.0013		<0.0013		<0.0013	
10/17/2018	<0.0025							
3/27/2019				<0.0013		<0.0013		<0.0013
3/28/2019		<0.0025						

Prediction Limit

Constituent: Lead Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-15	ARGWC-15	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7
12/16/1997	<0.0013							
6/30/1998	<0.0013							
12/2/1998	0.002							
6/8/1999	<0.0013							
12/7/1999	<0.0013							
6/15/2000	<0.0013							
12/12/2000	<0.0013							
12/5/2001	<0.0013							
6/26/2002	0.00539							
12/3/2002	<0.0013							
6/11/2003	<0.0013							
12/10/2003	<0.0013							
6/15/2004	<0.0013							
12/14/2004	0.013							
6/2/2005	<0.0013							
12/14/2005	<0.0013						<0.0013	
4/5/2006	<0.0013						<0.0013	
10/30/2006	<0.0013						<0.0013	
5/10/2007	<0.0013						0.0032	
11/17/2007	<0.0013						<0.0013	
5/2/2008							0.008	
5/3/2008	<0.0013							
10/22/2008	<0.0013						<0.0013	
5/5/2009			<0.0013					
5/6/2009	<0.0013							
5/12/2009					<0.0013			
5/14/2009							0.00083	
12/1/2009	<0.0013						<0.0013	
12/4/2009			<0.0013		<0.0013			
5/25/2010	<0.0013				<0.0013			
5/26/2010							<0.0013	
6/1/2010			<0.0013					
11/9/2010	<0.0013							
11/10/2010			<0.0013		<0.0013		<0.0013	
5/19/2011					<0.0013			
5/24/2011	<0.0013							
5/25/2011			<0.0013				<0.0013	
11/9/2011			<0.0013					
11/10/2011	<0.0013							
11/11/2011							<0.0013	
11/12/2011					<0.0013			
5/17/2012					<0.0013		<0.0013	
5/18/2012	<0.0013							
5/31/2012			0.0008 (J)					
11/9/2012	<0.0013						<0.0013	
11/10/2012			<0.0013		<0.0013			
5/7/2013					<0.0013			
5/8/2013	<0.0013						<0.0013	
11/5/2013					<0.0013		<0.0013	
11/6/2013	<0.0013							
11/12/2013			<0.0013					
5/20/2014	<0.0013							

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
12/16/1997							<0.0013	
6/30/1998							<0.0013	
12/2/1998							<0.0013	
6/8/1999							<0.0013	
12/7/1999							<0.0013	
6/15/2000							<0.0013	
12/12/2000							<0.0013	
12/5/2001							<0.0013	
6/26/2002							<0.0013	
12/3/2002							<0.0013	
6/11/2003							<0.0013	
12/10/2003							<0.0013	
6/15/2004							<0.0013	
12/14/2004							<0.0013	
6/2/2005							<0.0013	
12/14/2005							<0.0013	
4/5/2006							<0.0013	
10/30/2006							<0.0013	
5/10/2007							<0.0013	
11/17/2007							<0.0013	
5/3/2008							<0.0013	
10/22/2008							<0.0013	
5/6/2009	0.0054							
5/7/2009							0.0049	
12/3/2009	0.006							
12/4/2009							<0.0013	
5/25/2010	<0.0013							
6/1/2010							<0.0013	
6/2/2010					<0.0013			
11/9/2010	<0.0013							
11/10/2010					<0.0013		<0.0013	
5/19/2011					<0.0013			
5/24/2011	<0.0013							
5/25/2011							<0.0013	
11/9/2011					<0.0013			
11/10/2011	<0.0013							
11/12/2011							<0.0013	
5/18/2012	<0.0013							
5/30/2012					<0.0013			
5/31/2012							<0.0013	
11/9/2012	<0.0013							
11/11/2012					<0.0013		<0.0013	
5/8/2013	<0.0013							
5/9/2013					<0.0013			
5/13/2013							<0.0013	
11/6/2013	<0.0013							
11/11/2013					<0.0013			
11/12/2013							<0.0013	
5/20/2014	<0.0013							
5/29/2014					<0.0013		<0.0013	
11/18/2014	<0.0013		0.0083					
11/19/2014					<0.0013			

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-3	ARGWA-3
4/7/2015			<0.005					
4/14/2015	<0.0013				<0.0013		<0.0013	
10/28/2015			0.023					
10/29/2015	<0.0013							
11/3/2015							<0.0013	
11/4/2015					<0.0013			
6/23/2016	<0.0013		0.0096		<0.0013		<0.0013	
8/30/2016	<0.0013							
8/31/2016			0.017		0.00077 (J)		<0.0013	
10/24/2016	<0.0013							
10/25/2016			0.0257		<0.0013		<0.0013	
1/23/2017	<0.0013				0.00037 (J)			
1/24/2017			0.0097				<0.0013	
4/11/2017	<0.0013		0.0079		<0.0013		<0.0013	
6/20/2017					0.00044 (J)		<0.0013	
6/21/2017	0.00025 (J)		0.019					
10/25/2017	0.00027 (J)		0.022		0.00038 (J)		0.00032 (J)	
4/9/2018			0.0063		<0.0013			
4/10/2018	0.00033 (J)						<0.0013	
10/16/2018	<0.0013		0.021		<0.0013		<0.0013	
3/26/2019				0.015				
3/27/2019		<0.0013				<0.0013		<0.0013

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
12/16/1997	<0.0013							
6/30/1998	<0.0013							
12/2/1998	<0.0013							
6/8/1999	<0.0013							
12/7/1999	<0.0013							
6/15/2000	<0.0013							
12/12/2000	<0.0013							
12/5/2001	<0.0013							
6/26/2002	<0.0013							
12/3/2002	<0.0013							
6/11/2003	<0.0013							
12/10/2003	<0.0013							
6/15/2004	<0.0013							
12/14/2004	<0.0013							
6/2/2005	<0.0013							
12/14/2005	<0.0013							
4/5/2006	<0.0013							
10/30/2006	<0.0013							
5/10/2007	<0.0013							
11/17/2007	<0.0013							
5/3/2008	<0.0013							
10/22/2008	<0.0013							
5/5/2009					0.0041			
5/6/2009	0.0047							
5/12/2009							0.0062	
5/13/2009			0.005					
12/1/2009	0.0046							
12/3/2009			0.0057					
12/4/2009					<0.0013			
12/5/2009							<0.005	
5/25/2010	<0.0013							
5/26/2010			<0.0013				<0.005	
6/1/2010					<0.0013			
11/9/2010	<0.0013		<0.0013				<0.005	
11/10/2010					<0.0013			
5/19/2011			<0.0013					
5/24/2011	<0.0013						<0.005	
5/25/2011					<0.0013			
11/9/2011					<0.0013			
11/10/2011	<0.0013							
11/11/2011			<0.0013					
11/12/2011							<0.005	
5/17/2012			<0.0013					
5/18/2012	<0.0013							
5/30/2012							0.0016 (J)	
5/31/2012					<0.0013			
11/9/2012	<0.0013		<0.0013				<0.005	
11/10/2012					<0.0013			
5/7/2013			<0.0013					
5/8/2013	<0.0013							
5/13/2013					<0.0013		<0.005	
11/6/2013	<0.0013		<0.0013				<0.005	

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
11/12/2013					<0.0013			
5/20/2014	<0.0013		<0.0013					
5/21/2014							<0.005	
5/28/2014					<0.0013			
11/17/2014	<0.0013						<0.005	
11/18/2014			<0.0013					
11/20/2014					<0.0013			
4/7/2015	<0.0013		<0.0013				<0.005	
4/14/2015					<0.0013			
10/28/2015	<0.0013		<0.0013				<0.005	
11/3/2015					<0.0013			
6/23/2016	<0.0013		<0.0013		<0.0013			
6/24/2016							0.0014	
8/30/2016	<0.0013							
9/1/2016			<0.0013				0.0014	
9/2/2016					0.0005 (J)			
10/25/2016	<0.0013		<0.0013				0.0015 (J)	
10/26/2016					<0.0013			
1/24/2017	<0.0013							
1/26/2017					<0.0013		0.00071 (J)	
1/27/2017			<0.0013					
4/11/2017	<0.0013						0.0011 (J)	
4/12/2017			<0.0013		<0.0013			
6/20/2017	<0.0013							
6/21/2017					<0.0013		0.00075 (J)	
6/22/2017			<0.0013					
10/25/2017	0.00027 (J)							
10/26/2017			<0.0013		0.0004 (J)		0.0012 (J)	
4/10/2018	<0.0013				0.00044 (J)		0.0013	
4/11/2018			<0.0013					
10/16/2018	<0.0013						0.00072 (J)	
10/17/2018			<0.0013		<0.0013			
3/27/2019		<0.0013				<0.0013		
3/28/2019				<0.0013				0.0017

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8
12/14/2005					<0.0013			
4/5/2006					<0.0013			
10/30/2006					<0.0013			
5/10/2007					<0.0013			
11/17/2007					<0.0013			
5/2/2008					<0.0013			
10/22/2008					<0.0013			
5/12/2009	0.0059		0.0039					
5/14/2009					0.0046		0.0035	
12/1/2009					0.0019			
12/3/2009							<0.0013	
12/4/2009	<0.0013		<0.0013					
5/25/2010	<0.0013		<0.0013					
5/26/2010					<0.0013		<0.0013	
11/9/2010	<0.0013						<0.0013	
11/10/2010			<0.0013		<0.0013			
5/18/2011							<0.0013	
5/19/2011			<0.0013					
5/24/2011	<0.0013							
5/25/2011					<0.0013			
11/11/2011					<0.0013		<0.0013	
11/12/2011	<0.0013		<0.0013					
5/17/2012			0.0006 (J)		<0.0013		<0.0013	
5/30/2012	<0.0013							
11/9/2012	<0.0013				<0.0013		<0.0013	
11/10/2012			<0.0013					
5/7/2013			<0.0013				<0.0013	
5/8/2013	<0.0013				<0.0013			
11/5/2013			<0.0013		<0.0013		<0.0013	
11/6/2013	<0.0013							
5/20/2014	<0.0013							
5/21/2014					<0.0013		<0.0013	
5/28/2014			<0.0013					
11/17/2014	<0.0013				<0.0013			
11/18/2014							<0.0013	
11/19/2014			<0.0013					
4/7/2015	<0.0013				<0.0013		<0.0013	
4/15/2015			<0.0013					
10/28/2015	<0.0013				<0.0013		<0.0013	
10/29/2015			<0.0013					
6/23/2016					0.00029 (J)		<0.0013	
6/24/2016	<0.0013		<0.0013					
8/31/2016					<0.0013		<0.0013	
9/1/2016	<0.0013		<0.0013					
10/25/2016	<0.0013				<0.0013			
10/26/2016			<0.0013				<0.0013	
1/26/2017	<0.0013				<0.0013		<0.0013	
1/27/2017			<0.0013					
4/11/2017	<0.0013							
4/12/2017			<0.0013		<0.0013		<0.0013	
6/21/2017	<0.0013		<0.0013				<0.0013	
6/22/2017					<0.0013			

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 4:35 PM View: Intrawell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8
10/25/2017			<0.0013		<0.0013			
10/26/2017	<0.0013						<0.0013	
4/10/2018	<0.0013				<0.0013			
4/11/2018			<0.0013				<0.0013	
10/17/2018	<0.0013		<0.0013		<0.0013		<0.0013	
3/27/2019				<0.0013				
3/28/2019		<0.0013				<0.0013		<0.0013

Prediction Limit

Constituent: Selenium, Silver Analysis Run 8/27/2019 4:35 PM View: IntraWell PL

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-3	ARGWA-3
6/30/1998							<0.0013	
12/2/1998							<0.0013	
6/8/1999							<0.0013	
12/7/1999							<0.0013	
6/15/2000							<0.0013	
12/12/2000							0.0051	
12/5/2001							<0.0013	
6/26/2002							<0.0013	
12/3/2002							<0.0013	
6/11/2003							<0.0013	
12/10/2003							0.003	
6/15/2004							<0.0013	
12/14/2004							<0.0013	
6/2/2005							<0.0013	
12/14/2005							<0.0013	
4/5/2006							<0.0013	
10/30/2006							0.002	
5/10/2007							0.0017	
11/17/2007							<0.0013	
5/3/2008							<0.0013	
10/22/2008							<0.0013	
5/6/2009			<0.0013					
5/7/2009					<0.0013		<0.0013	
5/13/2009	0.0049							
12/3/2009	0.0045		<0.0013		<0.0013			
12/4/2009							<0.0013	
5/25/2010			<0.0013		<0.0013			
5/26/2010	<0.0013							
6/1/2010							<0.0013	
11/9/2010	<0.0013		<0.0013					
11/10/2010					<0.0013		<0.0013	
5/19/2011	<0.0013							
5/24/2011			<0.0013					
5/25/2011					<0.0013		<0.0013	
11/11/2011	<0.0013							
5/17/2012	<0.0013							
5/18/2012			0.0001 (J)					
5/30/2012					<0.0013			
5/31/2012							<0.0013	
11/9/2012	<0.0013		<0.0013		<0.0013			
11/11/2012							<0.0013	
5/7/2013	<0.0013							
5/8/2013			<0.0013					
5/9/2013					<0.0013			
5/13/2013							<0.0013	
11/6/2013	<0.0013		<0.0013					
11/11/2013					<0.0013			
11/12/2013							<0.0013	
5/20/2014			<0.0013					
5/21/2014	<0.0013				<0.0013			
5/29/2014							<0.0013	
11/18/2014	<0.0013		<0.0013		<0.0013			

Prediction Limit

Constituent: Selenium, Silver Analysis Run 8/27/2019 4:35 PM View: Inrawell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-9	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-3	ARGWA-3
4/7/2015	<0.0013				<0.0013			
4/14/2015			<0.0013				<0.0013	
10/28/2015	<0.0013				<0.0013			
10/29/2015			<0.0013					
11/3/2015							<0.0013	
6/23/2016	<0.0013		<0.0013		<0.0013		<0.0013	
8/31/2016	0.00024 (J)							
10/24/2016			<0.0013					
10/25/2016	<0.0013				<0.0013		<0.0013	
1/26/2017	<0.0013							
4/11/2017			<0.0013		<0.0013		<0.0013	
4/12/2017	<0.0013							
6/22/2017	<0.0013							
10/25/2017	0.00029 (J)		<0.0013		0.00013 (J)		<0.0013	
4/9/2018					<0.0013			
4/10/2018			<0.0013				<0.0013	
4/11/2018	<0.0013							
10/16/2018			<0.0013		<0.0013		<0.0013	
10/17/2018	<0.0013							
3/26/2019						<0.0013		
3/27/2019				<0.0013				<0.0013
3/28/2019		<0.0013						

Prediction Limit

Constituent: Silver Analysis Run 8/27/2019 4:35 PM View: IntraWell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
12/16/1997	<0.0013							
6/30/1998	<0.0013							
12/2/1998	<0.0013							
6/8/1999	<0.0013							
12/7/1999	<0.0013							
6/15/2000	<0.0013							
12/12/2000	<0.0013							
12/5/2001	<0.0013							
6/26/2002	<0.0013							
12/3/2002	<0.0013							
6/11/2003	<0.0013							
12/10/2003	0.002							
6/15/2004	<0.0013							
12/14/2004	<0.0013							
6/2/2005	<0.0013							
12/14/2005	<0.0013							
4/5/2006	<0.0013							
10/30/2006	<0.0013							
5/10/2007	<0.0013							
11/17/2007	<0.0013							
5/3/2008	<0.0013							
10/22/2008	<0.0013							
5/5/2009					<0.0013			
5/6/2009	<0.0013							
5/12/2009							0.0011	
5/13/2009			0.0009					
12/1/2009	<0.0013							
12/3/2009			0.00083					
12/4/2009					0.00098			
12/5/2009							0.0004	
5/25/2010	<0.0013							
5/26/2010			<0.0013				<0.0013	
6/1/2010					<0.0013			
11/9/2010	<0.0013		<0.0013				<0.0013	
11/10/2010					<0.0013			
5/19/2011			<0.0013					
5/24/2011	<0.0013						<0.0013	
5/25/2011					<0.0013			
5/17/2012			<0.0013					
5/18/2012	<0.0013							
5/30/2012							<0.0013	
5/31/2012					<0.0013			
11/9/2012	<0.0013		<0.0013				<0.0013	
11/10/2012					<0.0013			
5/7/2013			<0.0013					
5/8/2013	<0.0013							
5/13/2013					<0.0013		<0.0013	
11/6/2013	<0.0013		<0.0013				<0.0013	
11/12/2013					<0.0013			
5/20/2014	<0.0013		<0.0013					
5/21/2014							<0.0013	
5/28/2014					<0.0013			

Prediction Limit

Constituent: Silver Analysis Run 8/27/2019 4:35 PM View: IntraWell PL
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5	ARGWA-5	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16
11/17/2014	<0.0013						<0.0013	
11/18/2014			<0.0013					
11/20/2014					<0.0013			
4/7/2015	<0.0013		<0.0013				<0.0013	
4/14/2015					<0.0013			
10/28/2015	<0.0013		<0.0013				<0.0013	
11/3/2015					<0.0013			
6/23/2016	<0.0013		<0.0013		<0.0013			
6/24/2016							<0.0013	
10/25/2016	<0.0013		<0.0013				<0.0013	
10/26/2016					<0.0013			
4/11/2017	<0.0013						<0.0013	
4/12/2017			<0.0013		<0.0013			
10/25/2017	<0.0013							
10/26/2017			<0.0013		0.00037 (J)		0.00026 (J)	
4/10/2018	<0.0013				<0.0013		<0.0013	
4/11/2018			<0.0013					
10/16/2018	<0.0013						<0.0013	
10/17/2018			<0.0013		<0.0013			
3/27/2019		<0.0013				<0.0013		
3/28/2019				<0.0013				<0.0013

Prediction Limit

Constituent: Silver Analysis Run 8/27/2019 4:35 PM View: IntraWell PL
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18	ARGWC-7	ARGWC-7	ARGWC-9	ARGWC-9
12/14/2005					<0.0013			
4/5/2006					<0.0013			
10/30/2006					<0.0013			
5/10/2007					0.0011			
11/17/2007					<0.0013			
5/2/2008					<0.0013			
10/22/2008					<0.0013			
5/12/2009	0.0011		<0.0013					
5/13/2009							0.0024	
5/14/2009					<0.0013			
12/1/2009					<0.0013			
12/3/2009							0.0007	
12/4/2009	0.0014		0.0008					
5/25/2010	<0.0013		<0.0013					
5/26/2010					<0.0013		<0.0013	
11/9/2010	<0.0013						<0.0013	
11/10/2010			<0.0013		<0.0013			
5/19/2011			<0.0013				<0.0013	
5/24/2011	<0.0013							
5/25/2011					<0.0013			
5/17/2012			<0.0013		<0.0013		<0.0013	
5/30/2012	<0.0013							
11/9/2012	<0.0013				<0.0013		<0.0013	
11/10/2012			<0.0013					
5/7/2013			<0.0013				<0.0013	
5/8/2013	<0.0013				<0.0013			
11/5/2013			<0.0013		<0.0013			
11/6/2013	<0.0013						<0.0013	
5/20/2014	<0.0013							
5/21/2014					<0.0013		<0.0013	
5/28/2014			<0.0013					
11/17/2014	<0.0013				<0.0013			
11/18/2014							<0.0013	
11/19/2014			<0.0013					
4/7/2015	<0.0013				<0.0013		<0.0013	
4/15/2015			<0.0013					
10/28/2015	<0.0013				<0.0013		<0.0013	
10/29/2015			<0.0013					
6/23/2016					<0.0013		<0.0013	
6/24/2016	<0.0013		<0.0013					
10/25/2016	<0.0013				<0.0013		<0.0013	
10/26/2016			<0.0013					
4/11/2017	<0.0013							
4/12/2017			<0.0013		<0.0013		<0.0013	
10/25/2017			<0.0013		<0.0013		<0.0013	
10/26/2017	<0.0013							
4/10/2018	<0.0013				<0.0013			
4/11/2018			<0.0013				<0.0013	
10/17/2018	<0.0013		<0.0013		<0.0013		<0.0013	
3/27/2019				<0.0013				
3/28/2019		<0.0013				<0.0013		<0.0013

Trend Test Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:38 PM

Constituent
Sulfate (mg/L)

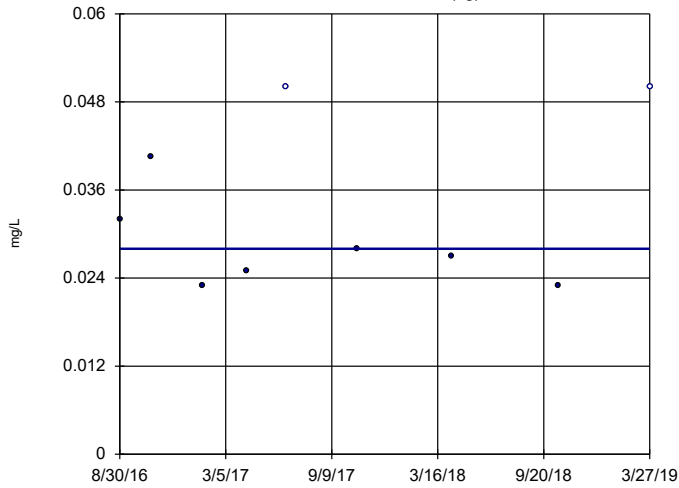
<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Alpha</u>	<u>Method</u>
ARGWC-16	8.182	116	95	Yes	24	0	n/a	0.02	NP

Trend Test All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 8/27/2019, 4:38 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWA-12 (bg)	0	0	23	No	9	22.22	n/a	0.02	NP
Boron (mg/L)	ARGWA-13 (bg)	0.08314	10	23	No	9	0	n/a	0.02	NP
Boron (mg/L)	ARGWA-14 (bg)	-0.002608	-3	-23	No	9	0	n/a	0.02	NP
Boron (mg/L)	ARGWA-3 (bg)	0	6	23	No	9	88.89	n/a	0.02	NP
Boron (mg/L)	ARGWA-5 (bg)	0	6	23	No	9	88.89	n/a	0.02	NP
Boron (mg/L)	ARGWC-18	0.02834	2	23	No	9	0	n/a	0.02	NP
Boron (mg/L)	ARGWC-8	0	-1	-23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWA-12 (bg)	0.3587	10	23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWA-13 (bg)	-7.179	-6	-23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWA-14 (bg)	4.06	12	23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWA-3 (bg)	0.1287	11	23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWA-5 (bg)	0.06207	1	23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWC-15	1.915	8	23	No	9	0	n/a	0.02	NP
Calcium (mg/L)	ARGWC-16	-1.177	-1	-23	No	9	0	n/a	0.02	NP
pH (SU)	ARGWA-12 (bg)	0.006193	3	20	No	8	0	n/a	0.02	NP
pH (SU)	ARGWA-13 (bg)	-0.006874	-1	-20	No	8	0	n/a	0.02	NP
pH (SU)	ARGWA-14 (bg)	-0.07497	-8	-20	No	8	0	n/a	0.02	NP
pH (SU)	ARGWA-3 (bg)	0.01643	2	23	No	9	0	n/a	0.02	NP
pH (SU)	ARGWA-5 (bg)	-0.09865	-8	-23	No	9	0	n/a	0.02	NP
pH (SU)	ARGWC-16	-0.00471	-2	-23	No	9	0	n/a	0.02	NP
pH (SU)	ARGWC-17	-0.06478	-14	-23	No	9	0	n/a	0.02	NP
Sulfate (mg/L)	ARGWA-12 (bg)	0.188	54	95	No	24	0	n/a	0.02	NP
Sulfate (mg/L)	ARGWA-13 (bg)	43.69	23	39	No	13	0	n/a	0.02	NP
Sulfate (mg/L)	ARGWA-14 (bg)	-10.7	-26	-35	No	12	0	n/a	0.02	NP
Sulfate (mg/L)	ARGWA-3 (bg)	0	-0.3393	-2.33	No	45	33.33	n/a	0.02	NP
Sulfate (mg/L)	ARGWA-5 (bg)	0	-0.4984	-2.33	No	46	28.26	n/a	0.02	NP
Sulfate (mg/L)	ARGWC-16	8.182	116	95	Yes	24	0	n/a	0.02	NP
Total Dissolved Solids (mg/L)	ARGWA-12 (bg)	8.8	9	23	No	9	0	n/a	0.02	NP
Total Dissolved Solids (mg/L)	ARGWA-13 (bg)	-92.15	-6	-23	No	9	0	n/a	0.02	NP
Total Dissolved Solids (mg/L)	ARGWA-14 (bg)	-51.49	-16	-23	No	9	0	n/a	0.02	NP
Total Dissolved Solids (mg/L)	ARGWA-3 (bg)	1.852	2	23	No	9	0	n/a	0.02	NP
Total Dissolved Solids (mg/L)	ARGWA-5 (bg)	-0.4196	0	23	No	9	0	n/a	0.02	NP
Total Dissolved Solids (mg/L)	ARGWC-16	-6.229	-2	-23	No	9	0	n/a	0.02	NP

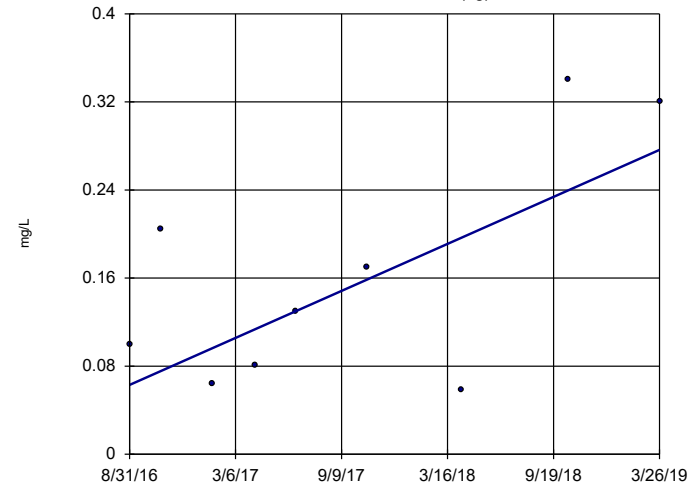
Sen's Slope Estimator ARGWA-12 (bg)



n = 9
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 23
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

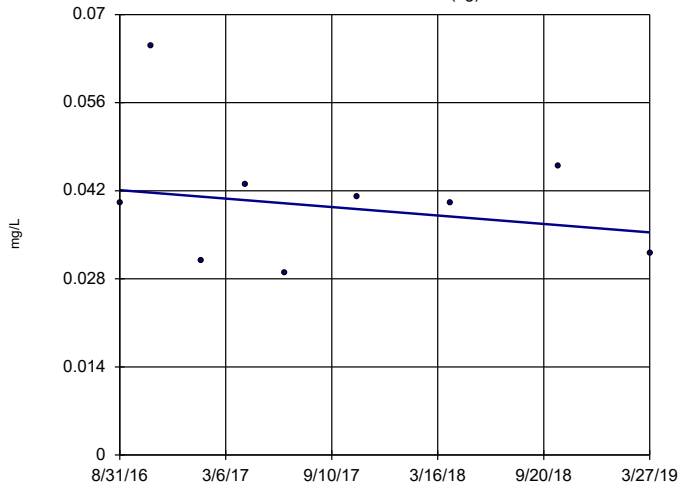
Sen's Slope Estimator ARGWA-13 (bg)



n = 9
Slope = 0.08314
units per year.
Mann-Kendall
statistic = 10
critical = 23
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

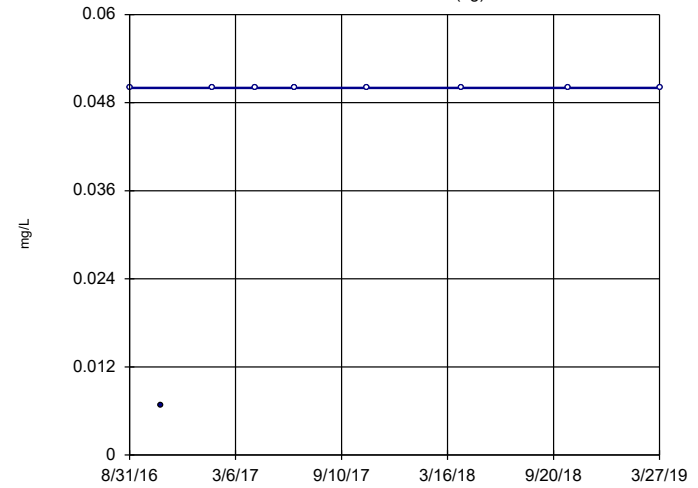
Sen's Slope Estimator ARGWA-14 (bg)



n = 9
Slope = -0.002608
units per year.
Mann-Kendall
statistic = -3
critical = -23
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

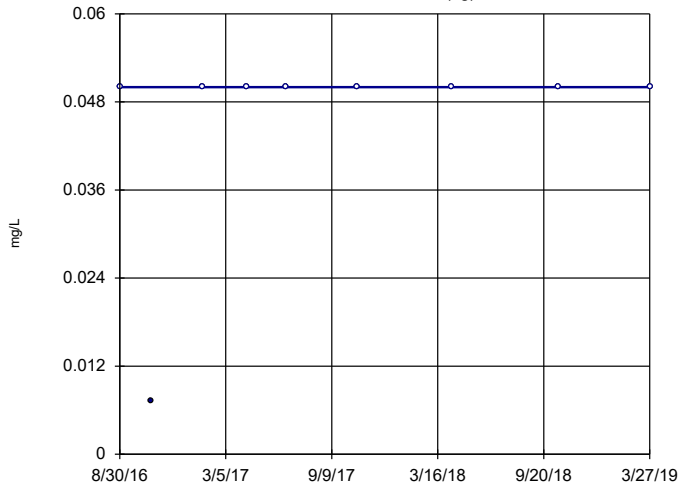
Sen's Slope Estimator ARGWA-3 (bg)



n = 9
Slope = 0
units per year.
Mann-Kendall
statistic = 6
critical = 23
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

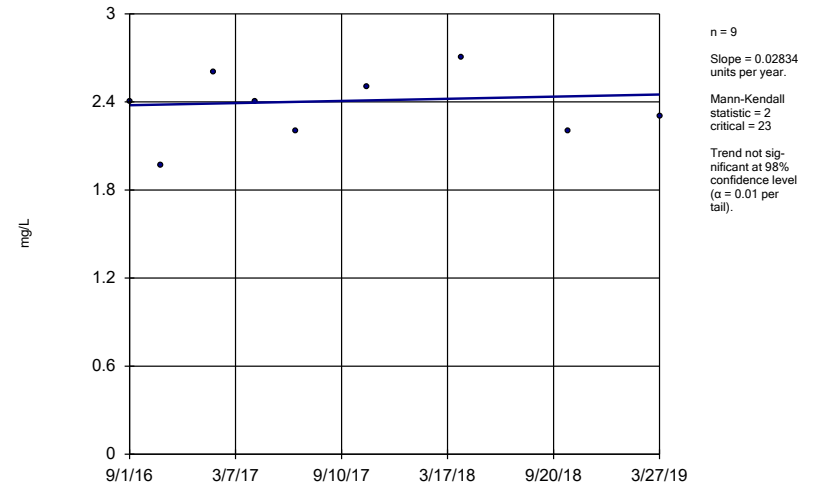
Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWA-5 (bg)



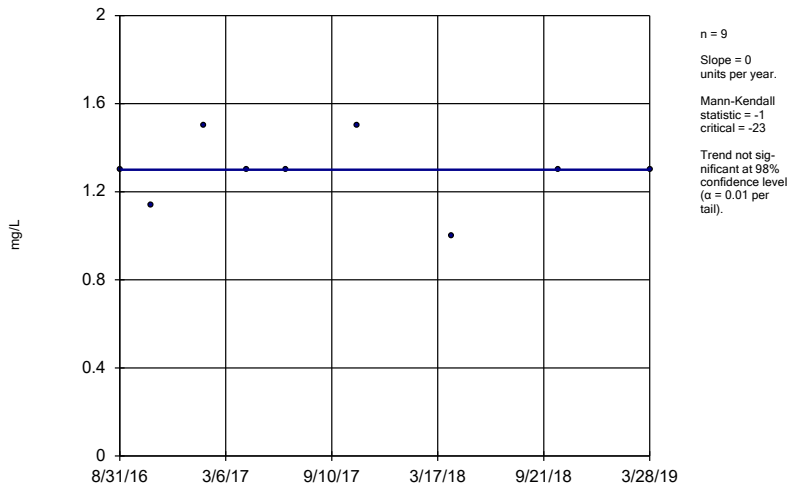
Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWC-18



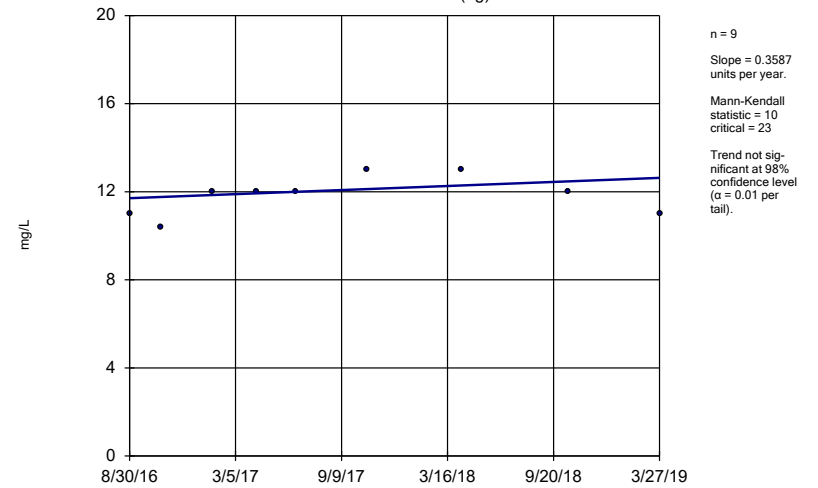
Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWC-8



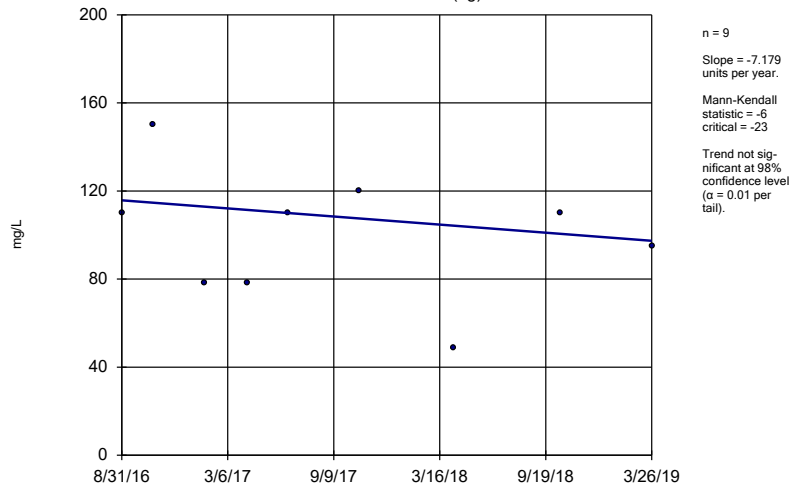
Constituent: Boron Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWA-12 (bg)



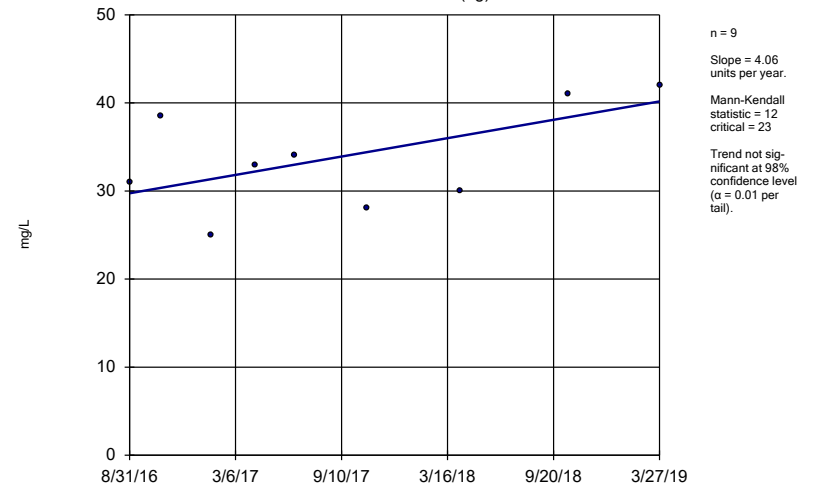
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWA-13 (bg)



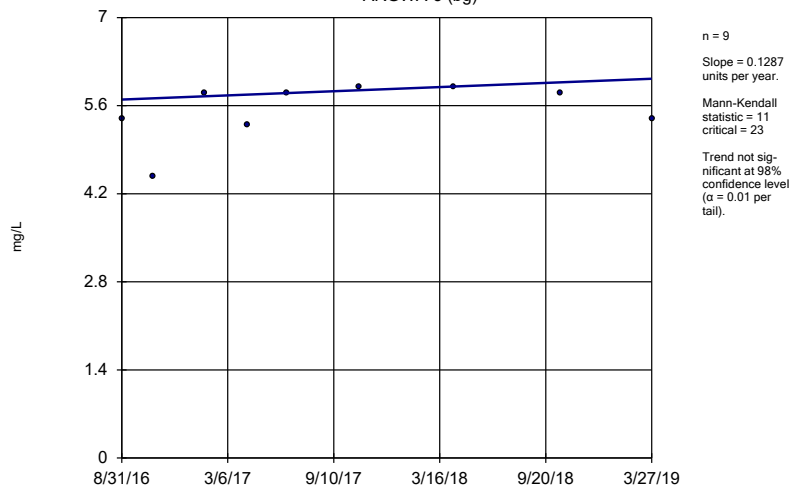
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWA-14 (bg)



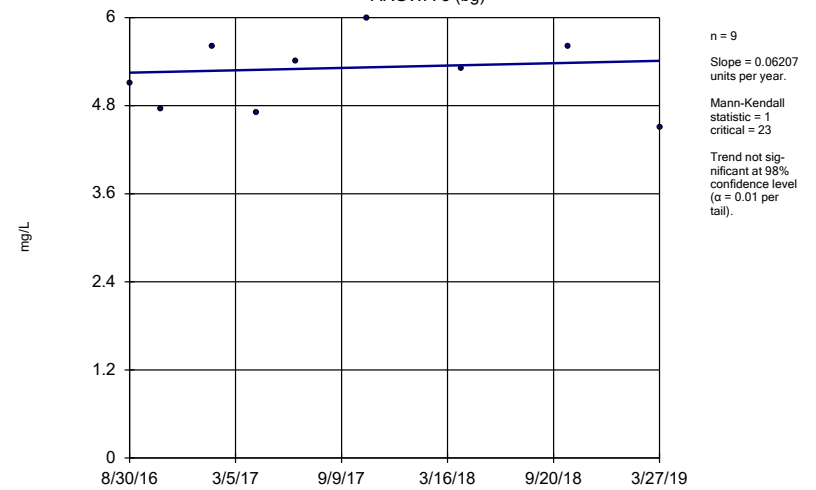
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWA-3 (bg)



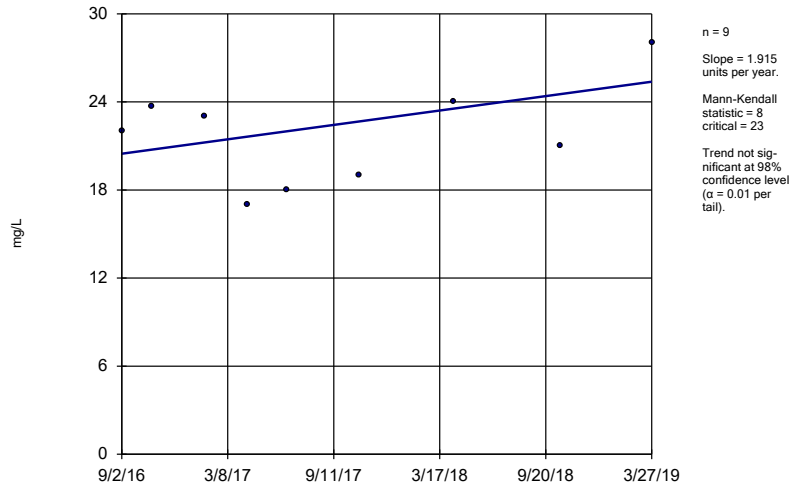
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator ARGWA-5 (bg)



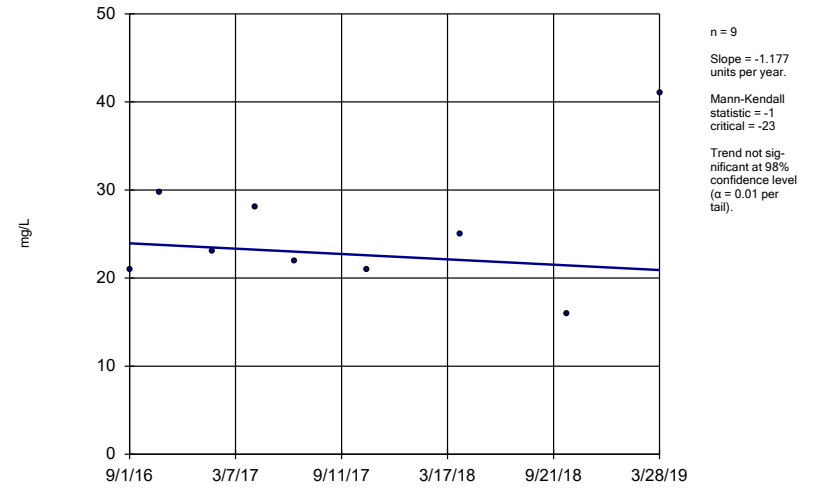
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWC-15



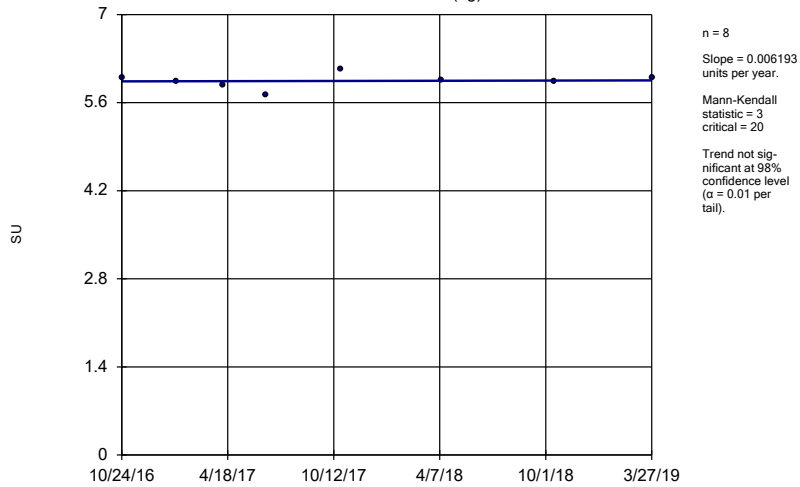
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWC-16



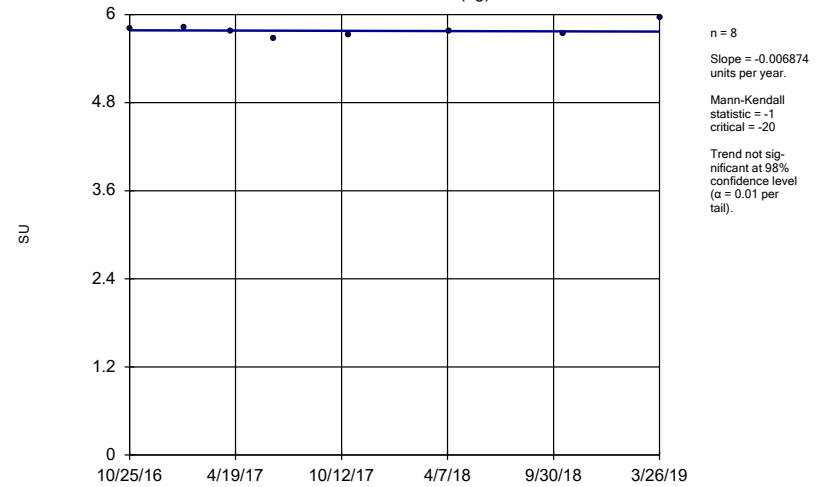
Constituent: Calcium Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWA-12 (bg)



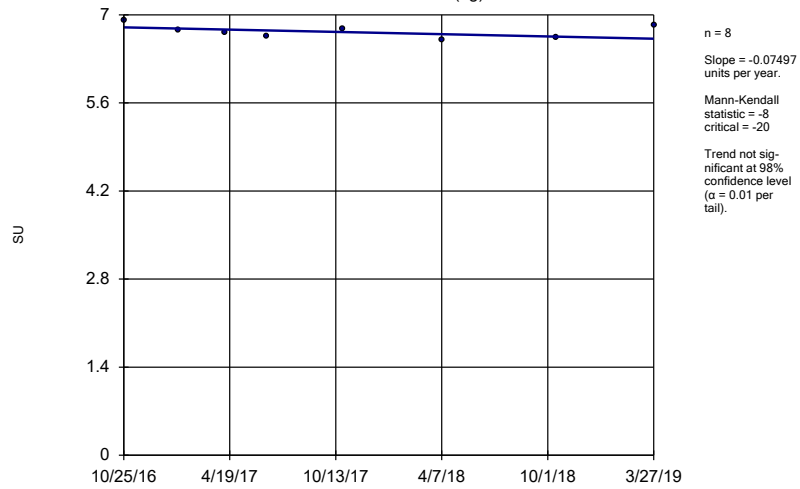
Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWA-13 (bg)



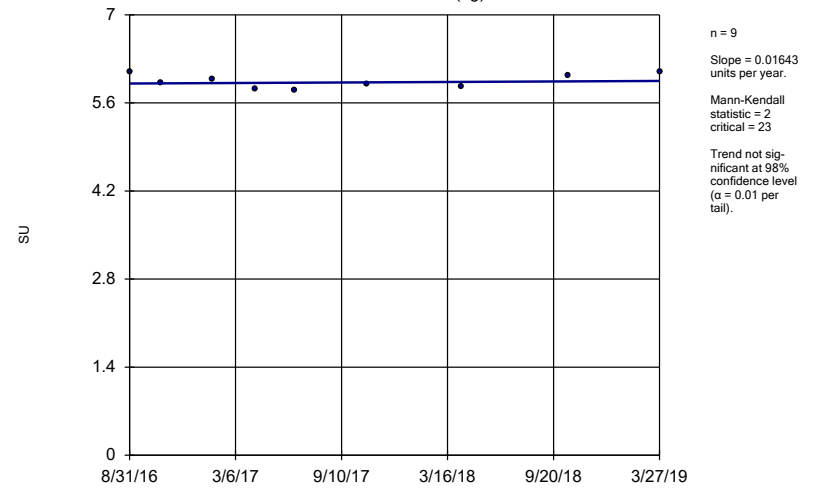
Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWA-14 (bg)



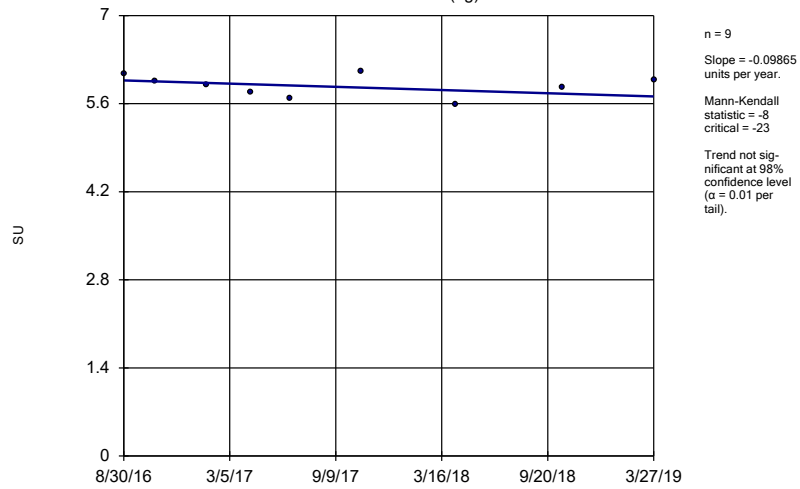
Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWA-3 (bg)



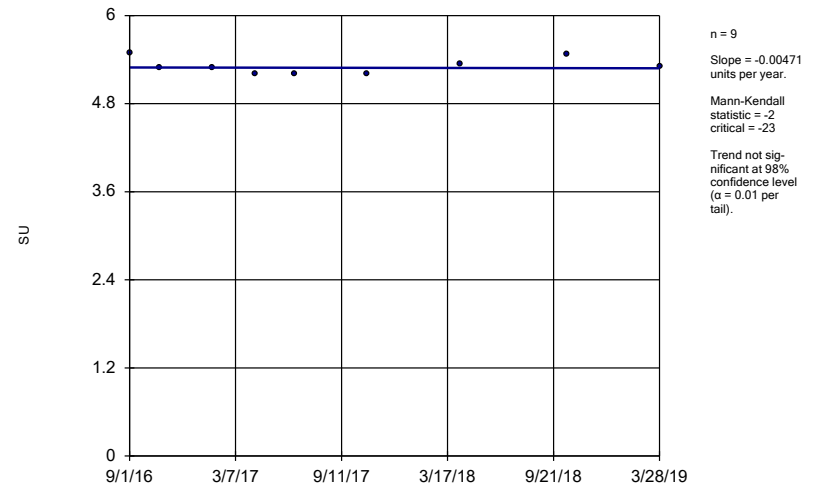
Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWA-5 (bg)



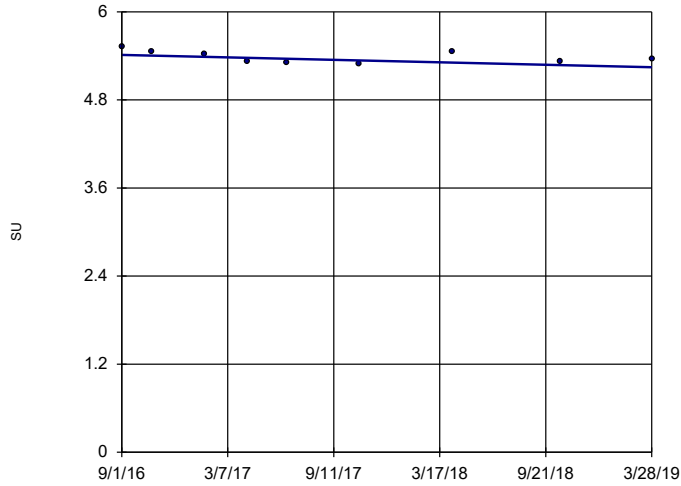
Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWC-16



Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

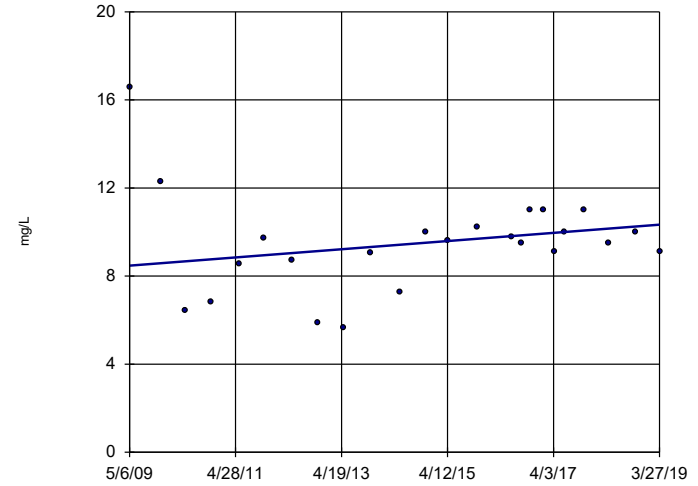
Sen's Slope Estimator
ARGWC-17



n = 9
Slope = -0.06478
units per year.
Mann-Kendall
statistic = -14
critical = -23
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

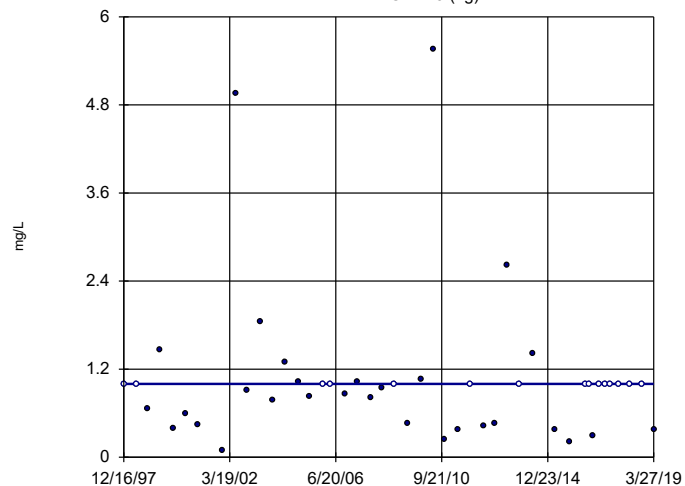
Constituent: pH Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator
ARGWA-12 (bg)



Sen's Slope Estimator

ARGWA-3 (bg)

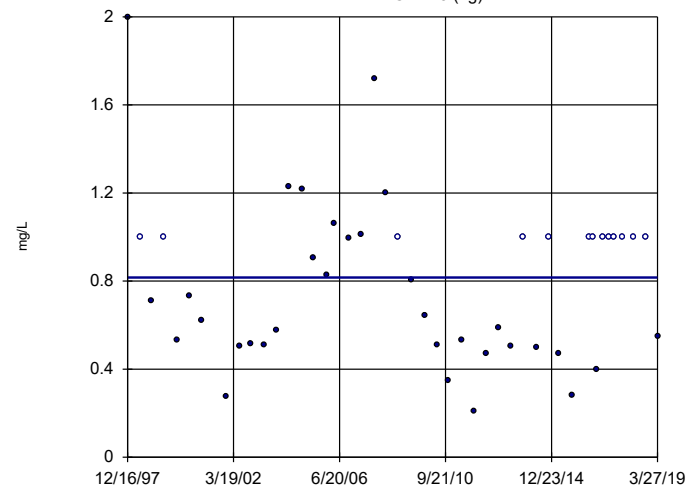


n = 45
Slope = 0
units per year.
Mann-Kendall
normal approx. =
-0.3393
critical = -2.33
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Sulfate Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-5 (bg)

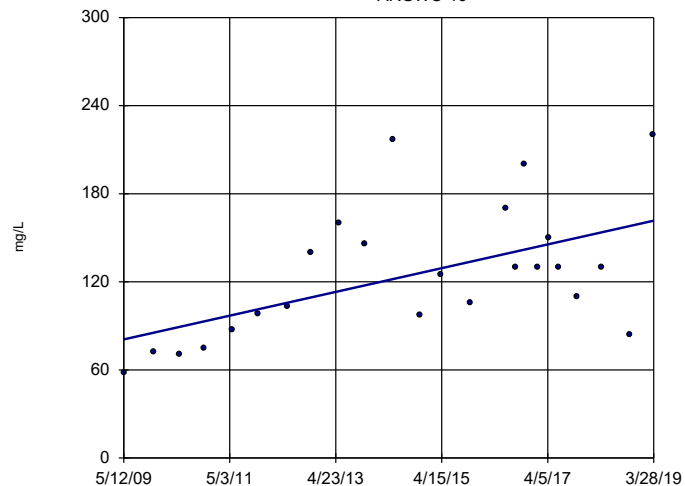


n = 46
Slope = 0
units per year.
Mann-Kendall
normal approx. =
-0.4984
critical = -2.33
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Sulfate Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWC-16

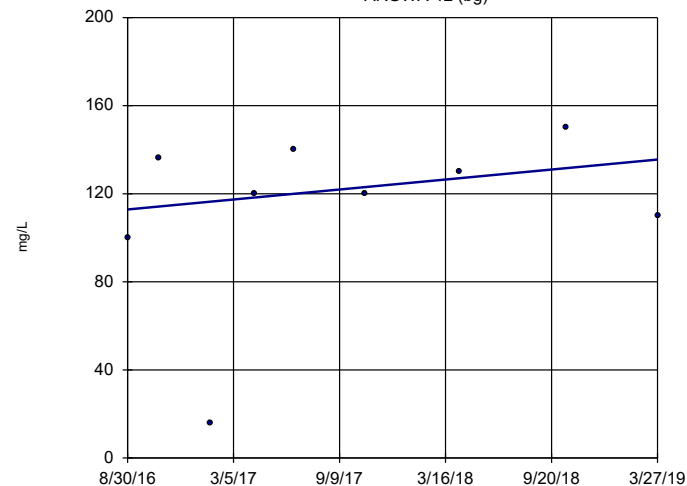


n = 24
Slope = 8.182
units per year.
Mann-Kendall
statistic = 116
critical = 95
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Sulfate Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-12 (bg)

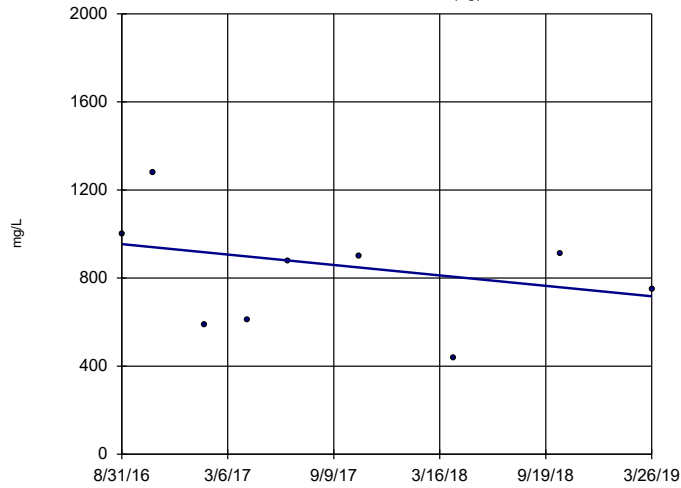


n = 9
Slope = 8.8
units per year.
Mann-Kendall
statistic = 9
critical = 23
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-13 (bg)

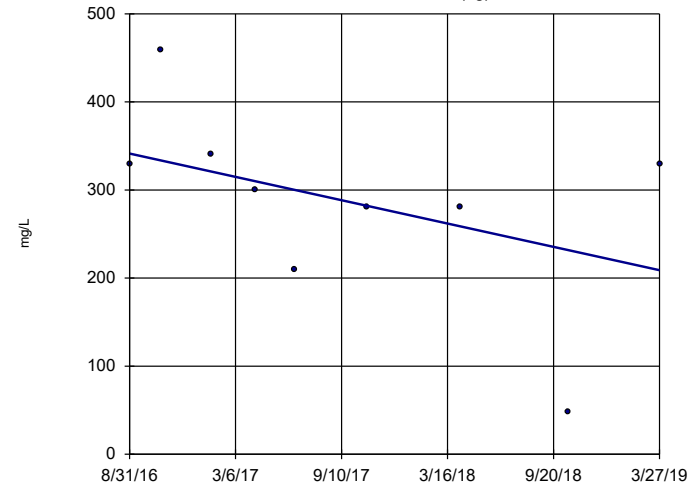


n = 9
 Slope = -92.15 units per year.
 Mann-Kendall statistic = -6
 critical = -23
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:36 PM View: Trend Test
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-14 (bg)

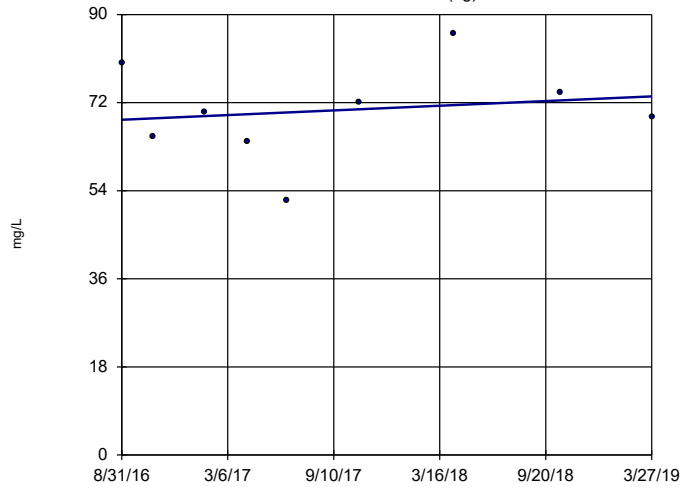


n = 9
 Slope = -51.49 units per year.
 Mann-Kendall statistic = -16
 critical = -23
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:36 PM View: Trend Test
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-3 (bg)

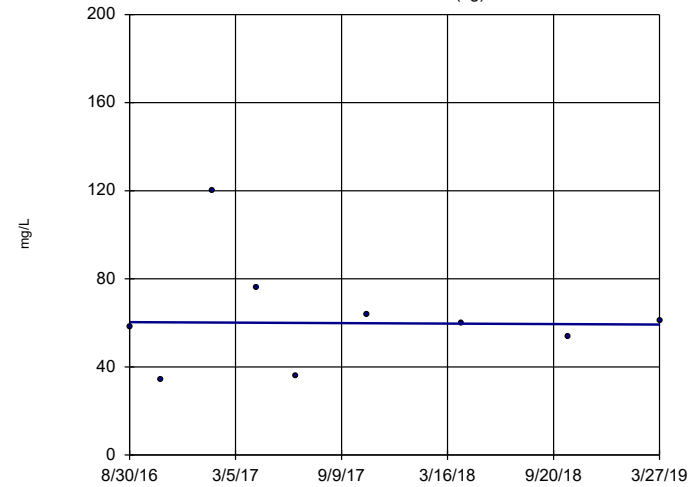


n = 9
 Slope = 1.852 units per year.
 Mann-Kendall statistic = 2
 critical = 23
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:36 PM View: Trend Test
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-5 (bg)

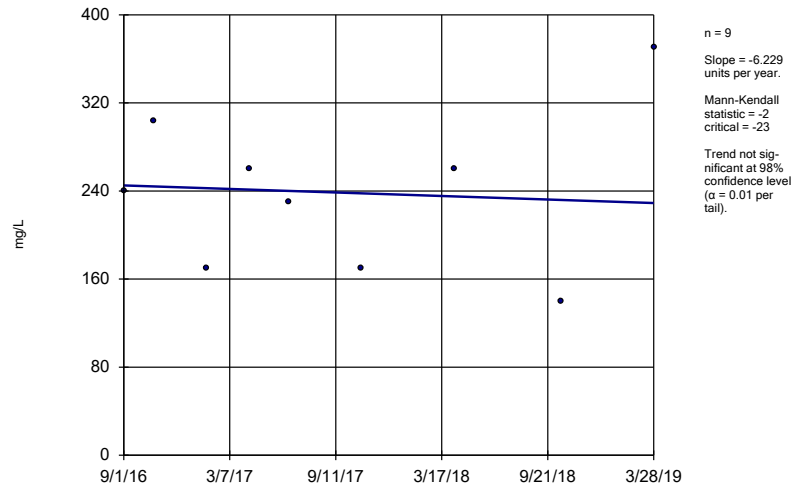


n = 9
 Slope = -0.4196 units per year.
 Mann-Kendall statistic = 0
 critical = 23
 Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:36 PM View: Trend Test
 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWC-16



Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:36 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

Constituent: Boron Analysis Run 8/27/2019 4:38 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)
8/30/2016	0.032 (J)			
8/31/2016		0.1	0.04 (J)	<0.05
10/24/2016	0.0406 (J)			
10/25/2016		0.204	0.065 (J)	0.0068 (J)
1/23/2017	0.023 (J)		0.031 (J)	
1/24/2017		0.064		<0.05
4/11/2017	0.025 (J)	0.081	0.043 (J)	<0.05
6/20/2017			0.029 (J)	<0.05
6/21/2017	<0.05	0.13		
10/25/2017	0.028 (J)	0.17	0.041 (J)	<0.05
4/9/2018		0.059	0.04 (J)	
4/10/2018	0.027 (J)			<0.05
10/16/2018	0.023 (J)	0.34	0.046 (J)	<0.05
3/26/2019		0.32		
3/27/2019	<0.05		0.032 (J)	<0.05

Sen's Slope Estimator

Constituent: Boron, Calcium Analysis Run 8/27/2019 4:38 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWC-18	ARGWC-8	ARGWA-12 (bg)
8/30/2016	<0.05			11
8/31/2016			1.3	
9/1/2016		2.4		
10/24/2016				10.4
10/25/2016	0.0073 (J)			
10/26/2016		1.97	1.14	
1/23/2017				12
1/24/2017	<0.05			
1/26/2017			1.5	
1/27/2017		2.6		
4/11/2017	<0.05			12
4/12/2017		2.4	1.3	
6/20/2017	<0.05			
6/21/2017		2.2	1.3	12
10/25/2017	<0.05	2.5		13
10/26/2017			1.5	
4/10/2018	<0.05			13
4/11/2018		2.7	1	
10/16/2018	<0.05			12
10/17/2018		2.2	1.3	
3/27/2019	<0.05	2.3		11
3/28/2019			1.3	

Sen's Slope Estimator

Constituent: Calcium Analysis Run 8/27/2019 4:38 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)
8/30/2016				5.1
8/31/2016	110	31	5.4	
10/25/2016	150	38.5	4.47	4.76
1/23/2017		25		
1/24/2017	78		5.8	5.6
4/11/2017	78	33	5.3	4.7
6/20/2017		34	5.8	5.4
6/21/2017	110			
10/25/2017	120	28	5.9	6
4/9/2018	49	30		
4/10/2018			5.9	5.3
10/16/2018	110	41	5.8	5.6
3/26/2019	95			
3/27/2019		42	5.4	4.5

Sen's Slope Estimator

Constituent: Calcium, pH Analysis Run 8/27/2019 4:38 PM View: Trend Test

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-15	ARGWC-16	ARGWA-12 (bg)	ARGWA-13 (bg)
9/1/2016		21		
9/2/2016	22			
10/24/2016			5.99	
10/25/2016		29.8		5.8
10/26/2016	23.7			
1/23/2017			5.94	
1/24/2017				5.82
1/26/2017	23	23		
4/11/2017		28	5.88	5.78
4/12/2017	17			
6/21/2017	18	22	5.73	5.67
10/25/2017			6.13	5.72
10/26/2017	19	21		
4/9/2018				5.78
4/10/2018	24	25	5.95	
10/16/2018		16	5.94	5.74
10/17/2018	21			
3/26/2019				5.96
3/27/2019	28		6	
3/28/2019		41		

Sen's Slope Estimator

Constituent: pH Analysis Run 8/27/2019 4:38 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-16
8/30/2016			6.07	
8/31/2016		6.09		
9/1/2016				5.49
10/25/2016	6.92	5.92	5.96	5.29
1/23/2017	6.76			
1/24/2017		5.98	5.89	
1/26/2017				5.29
4/11/2017	6.72	5.82	5.78	5.21
6/20/2017	6.66	5.8	5.69	
6/21/2017				5.21
10/25/2017	6.77	5.89	6.11	
10/26/2017				5.2
4/9/2018	6.6			
4/10/2018		5.85	5.58	5.34
10/16/2018	6.63	6.03	5.86	5.47
3/27/2019	6.83	6.1	5.97	
3/28/2019				5.31

Sen's Slope Estimator

Constituent: pH, Sulfate Analysis Run 8/27/2019 4:38 PM View: Trend Test

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009		16.6		
12/3/2009		12.3		
5/25/2010		6.44		
11/9/2010		6.83		
5/24/2011		8.55		
11/10/2011		9.74		
5/18/2012		8.72		
11/9/2012		5.9		
5/8/2013		5.66		
11/6/2013		9.04		
11/11/2013			316	
5/20/2014		7.25		
5/21/2014			162	
11/18/2014		10	370	
4/7/2015			235	
4/14/2015		9.61		105
10/29/2015		10.2		
11/4/2015				74.4
6/23/2016		9.8	380	18
8/30/2016		9.5		
8/31/2016			600	19
9/1/2016	5.52			
10/24/2016		11		
10/25/2016	5.45			42
1/23/2017		11		12
1/24/2017			370	
1/26/2017	5.43			
4/11/2017	5.33	9.1	340	7.1
6/20/2017				8.5
6/21/2017	5.3	10	540	
10/25/2017		11	580	9.1
10/26/2017	5.29			
4/9/2018			230	11
4/10/2018	5.46	9.5		
10/16/2018		10	520	14
10/17/2018	5.32			
3/26/2019			430	
3/27/2019		9.1		15
3/28/2019	5.36			

Sen's Slope Estimator

Constituent: Sulfate, Total Dissolved Solids Analysis Run 8/27/2019 4:38 PM View: Trend Test

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-16	ARGWA-12 (bg)
12/16/1997	<1	2		
6/30/1998	<1	<1		
12/2/1998	0.654	0.709		
6/8/1999	1.46	<1		
12/7/1999	0.399	0.531		
6/15/2000	0.601	0.733		
12/12/2000	0.45	0.621		
12/5/2001	0.094	0.274		
6/26/2002	4.95	0.505		
12/3/2002	0.911	0.515		
6/11/2003	1.85	0.508		
12/10/2003	0.77	0.578		
6/15/2004	1.3	1.23		
12/14/2004	1.02	1.22		
6/2/2005	0.834	0.908		
12/14/2005	<1	0.825		
4/5/2006	<1	1.06		
10/30/2006	0.865	0.996		
5/10/2007	1.03	1.01		
11/17/2007	0.818	1.72		
5/3/2008	0.941	1.2		
10/22/2008	<1	<1		
5/6/2009		0.807		
5/7/2009	0.46			
5/12/2009			57.9	
12/1/2009		0.644		
12/4/2009	1.06			
12/5/2009			72.1	
5/25/2010		0.509		
5/26/2010			70.3	
6/1/2010	5.56			
11/9/2010		0.348	74.8	
11/10/2010	0.241			
5/24/2011		0.532	87.2	
5/25/2011	0.383			
11/10/2011		0.209		
11/12/2011	<1		97.9	
5/18/2012		0.471		
5/30/2012			103	
5/31/2012	0.426			
11/9/2012		0.589	140	
11/11/2012	0.455 (J)			
5/8/2013		0.504		
5/13/2013	2.61		160	
11/6/2013		<1	146	
11/12/2013	<1			
5/20/2014		0.5 (J)		
5/21/2014			217	
5/29/2014	1.41			
11/17/2014		<1	97	
4/7/2015		0.469	125	
4/14/2015	0.377			

Sen's Slope Estimator

Constituent: Sulfate, Total Dissolved Solids Analysis Run 8/27/2019 4:38 PM View: Trend Test
Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-16	ARGWA-12 (bg)
10/28/2015		0.28	106	
11/3/2015	0.215			
6/23/2016	<1	<1		
6/24/2016			170	
8/30/2016		<1		100
8/31/2016	<1			
9/1/2016			130	
10/24/2016				136
10/25/2016	0.3 (J)	0.4 (J)	200	
1/23/2017				16
1/24/2017	<1	<1		
1/26/2017			130	
4/11/2017	<1	<1	150	120
6/20/2017	<1	<1		
6/21/2017			130	140
10/25/2017	<1	<1		120
10/26/2017			110	
4/10/2018	<1	<1	130	130
10/16/2018	<1	<1	84	150
3/27/2019	0.38 (J)	0.55 (J)		110
3/28/2019			220	

Sen's Slope Estimator

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:38 PM View: Trend Test

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)
8/30/2016				58
8/31/2016	1000	330	80	
10/25/2016	1280	459	65	34
1/23/2017		340		
1/24/2017	590		70	120
4/11/2017	610	300	64	76
6/20/2017		210	52	36
6/21/2017	880			
10/25/2017	900	280	72	64
4/9/2018	440	280		
4/10/2018			86	60
10/16/2018	910	48	74	54
3/26/2019	750			
3/27/2019		330	69	61

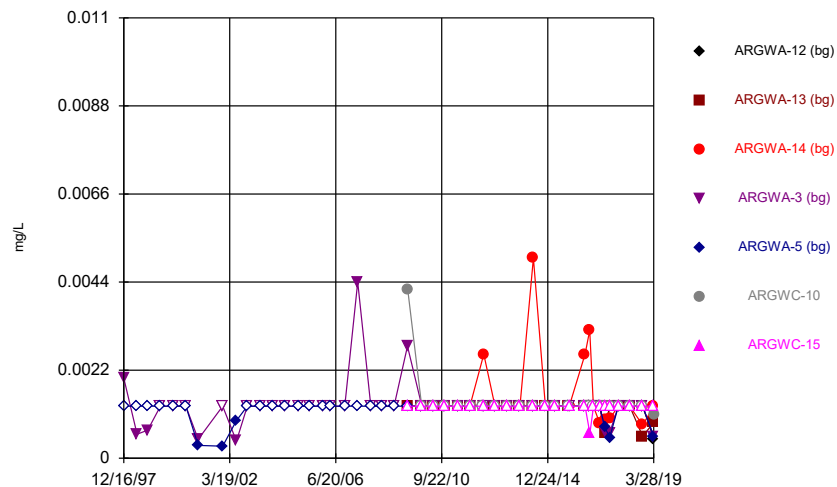
Sen's Slope Estimator

Constituent: Total Dissolved Solids Analysis Run 8/27/2019 4:38 PM View: Trend Test

Plant Arkwright Client: Southern Company Data: Arkwright No 3

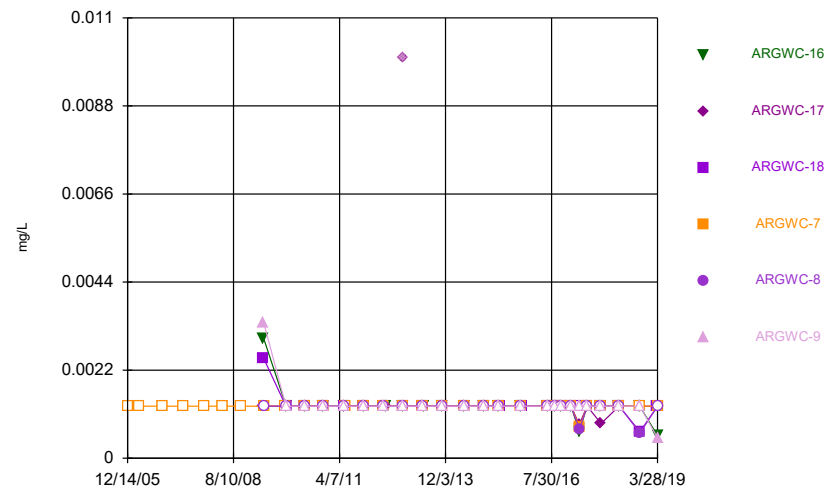
	ARGWC-16
9/1/2016	240
10/25/2016	304
1/26/2017	170
4/11/2017	260
6/21/2017	230
10/26/2017	170
4/10/2018	260
10/16/2018	140
3/28/2019	370

Time Series



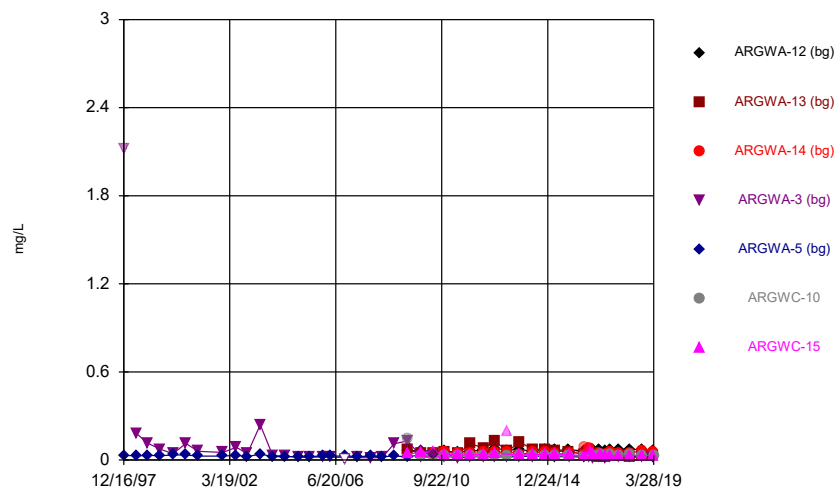
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



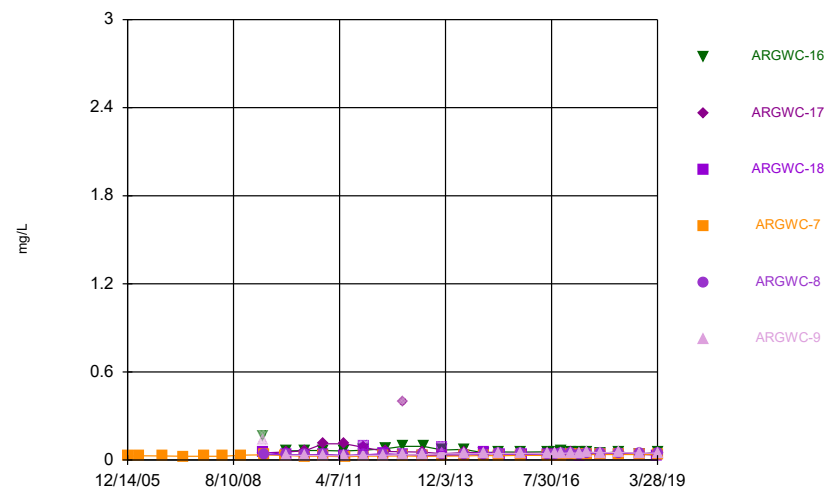
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



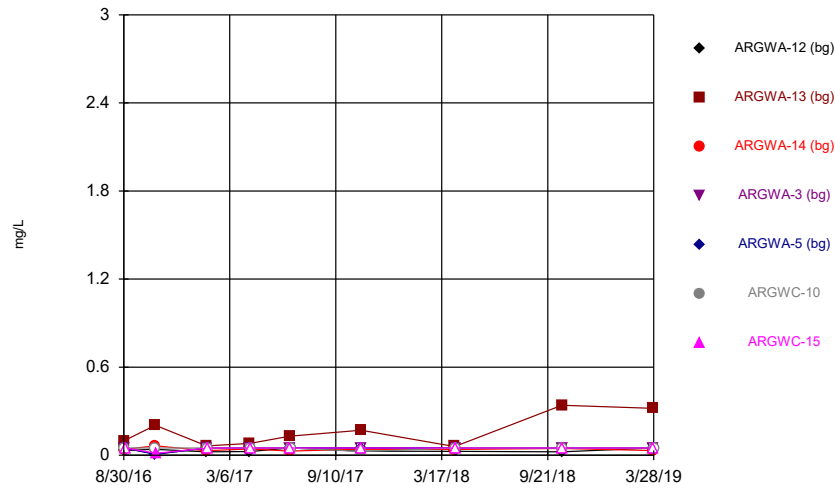
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



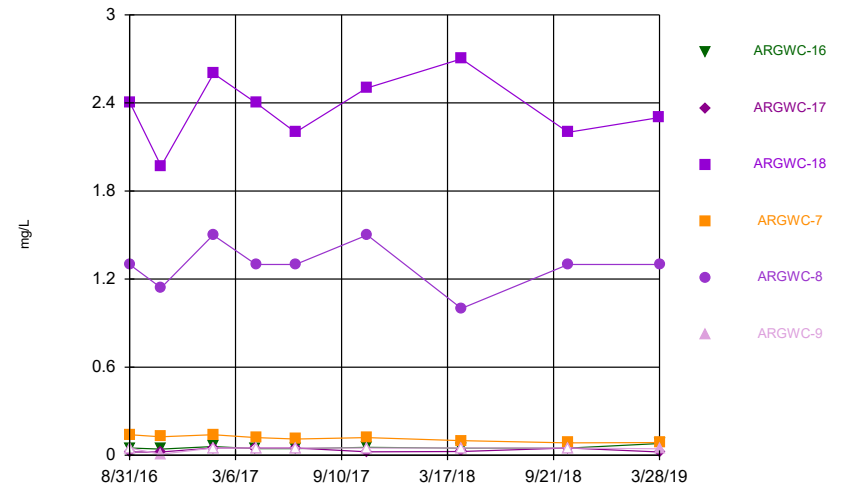
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



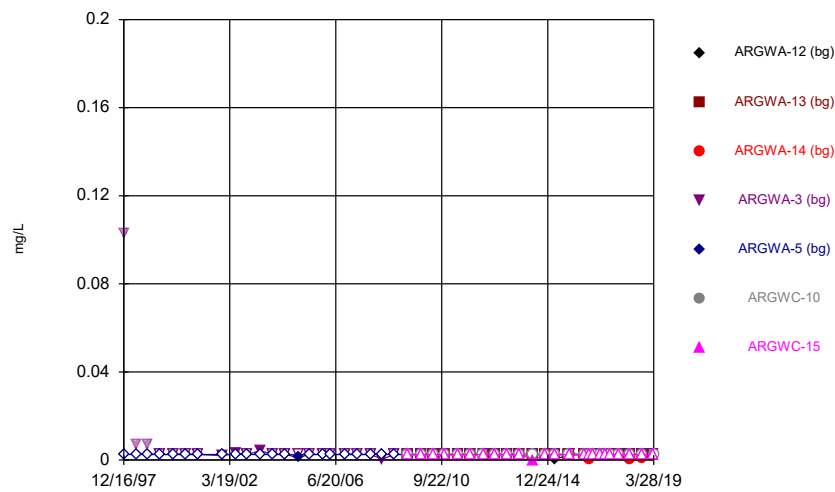
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



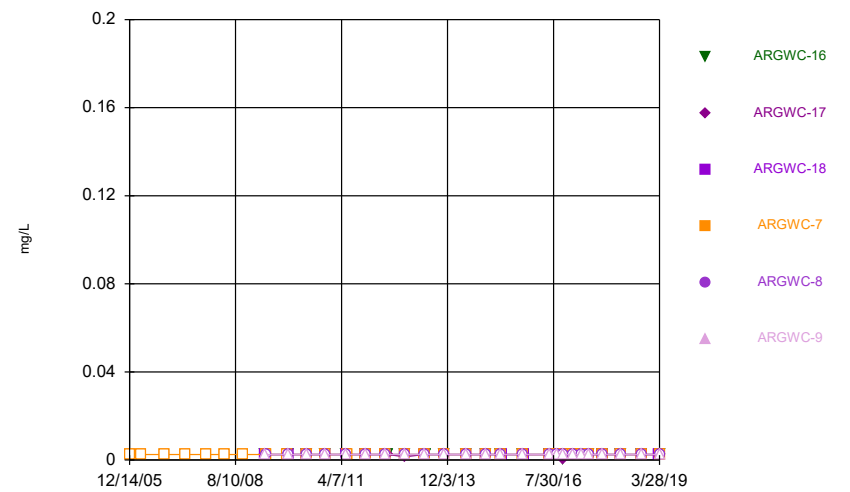
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



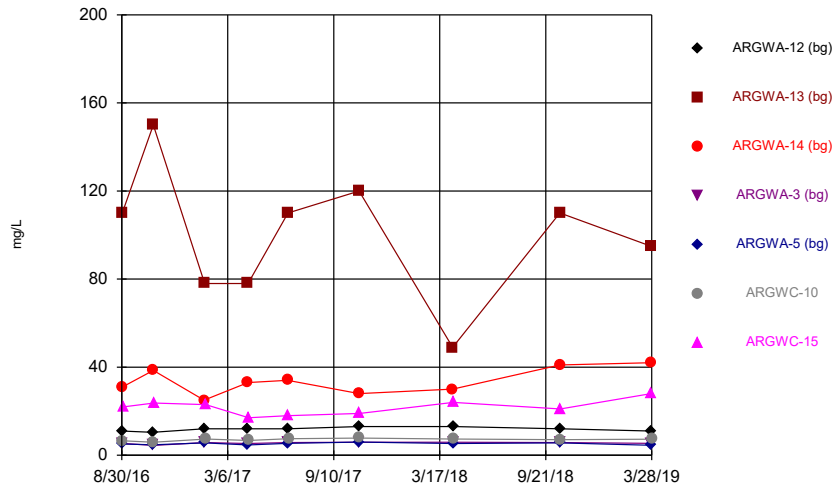
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



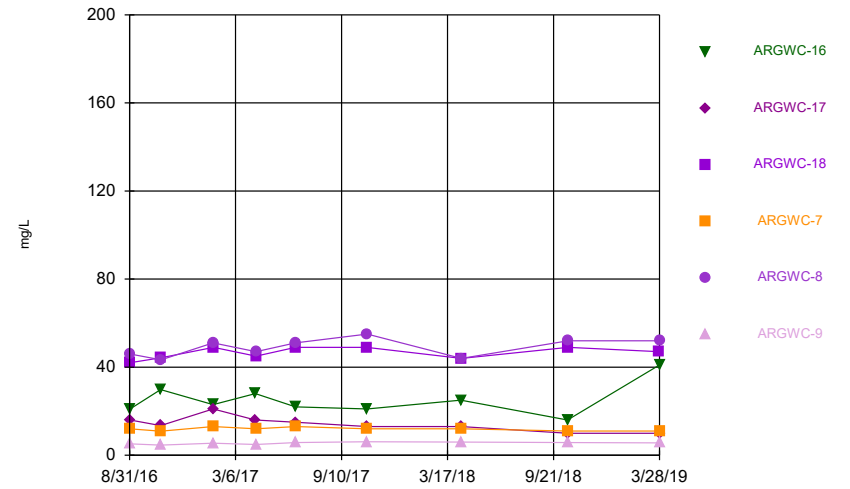
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



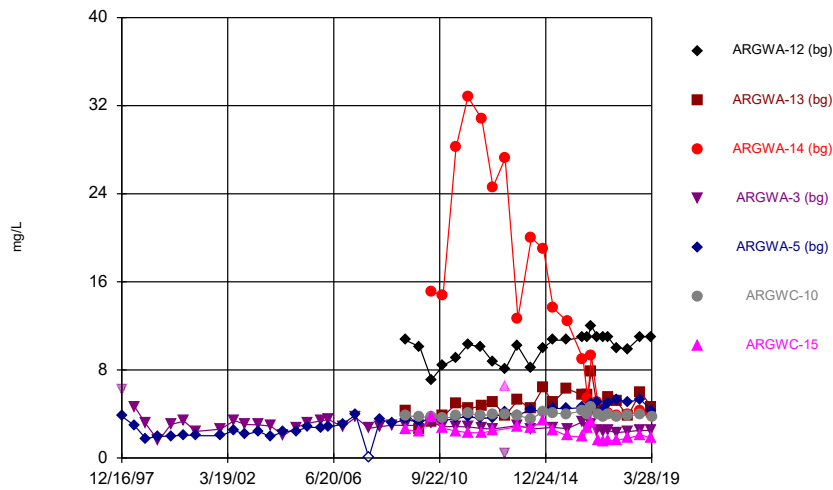
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



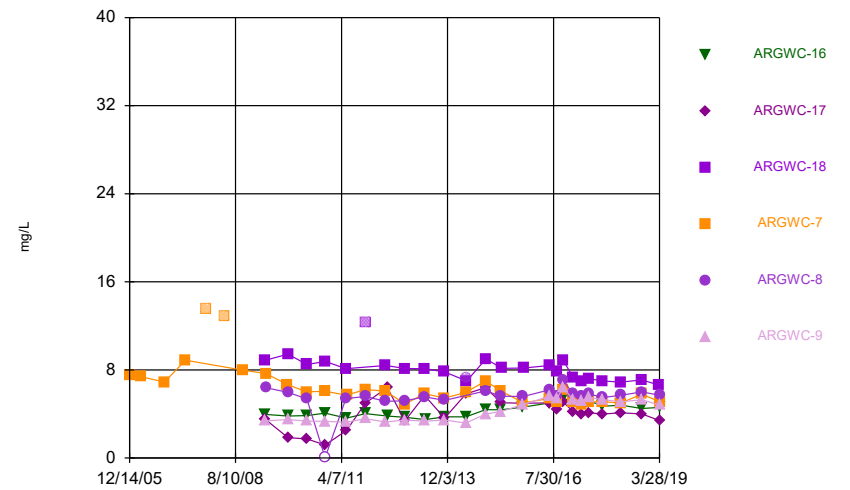
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



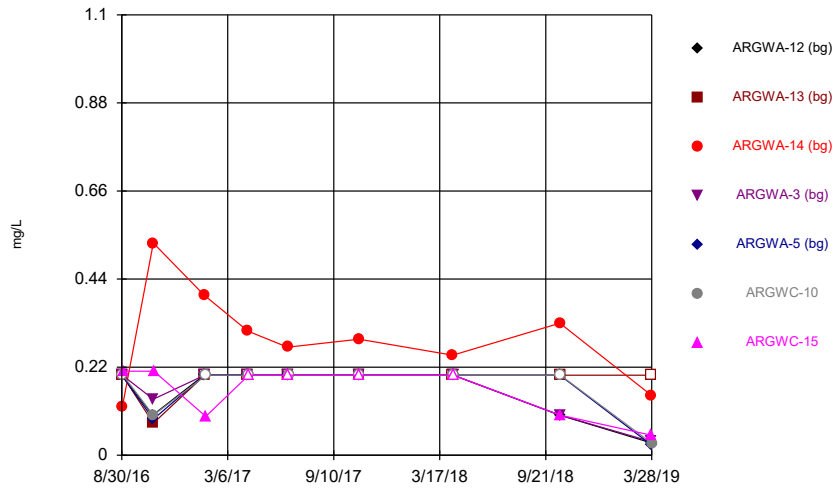
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



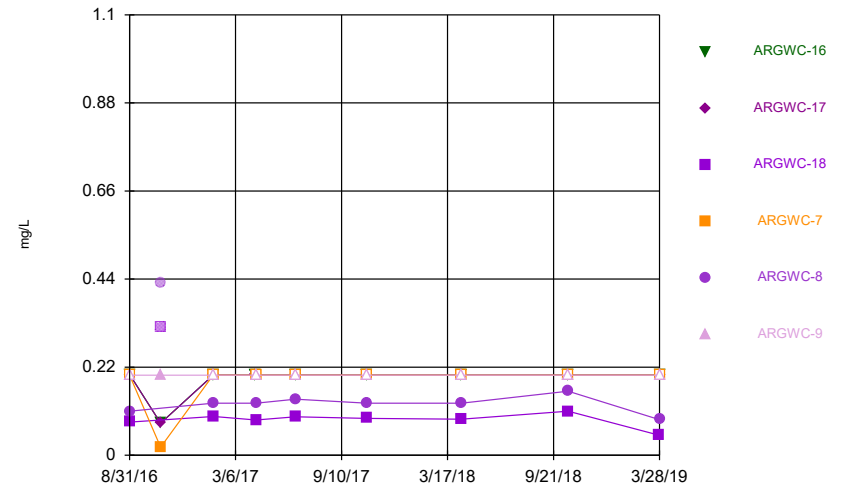
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



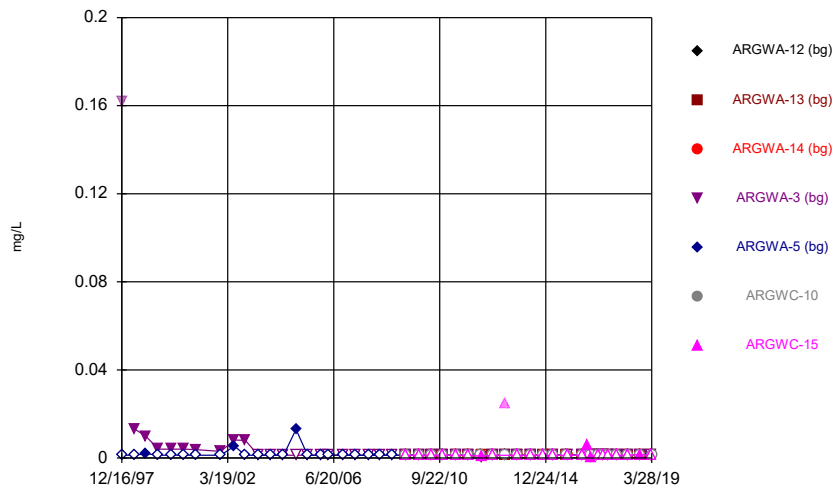
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



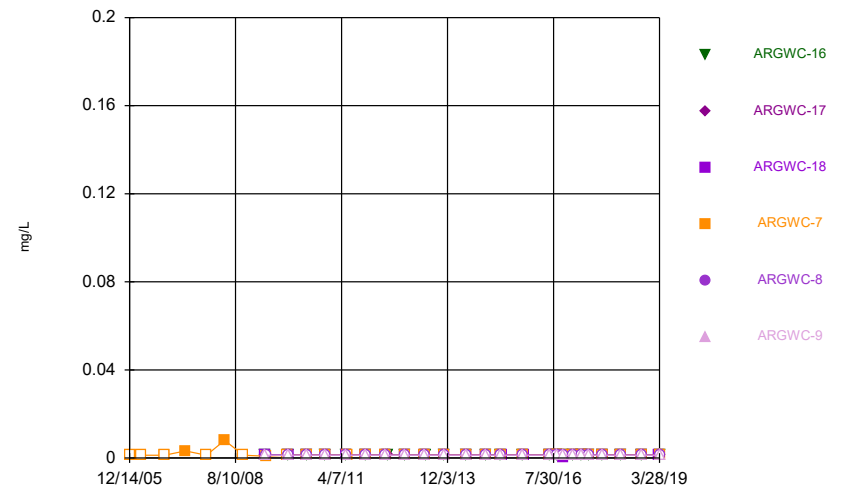
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



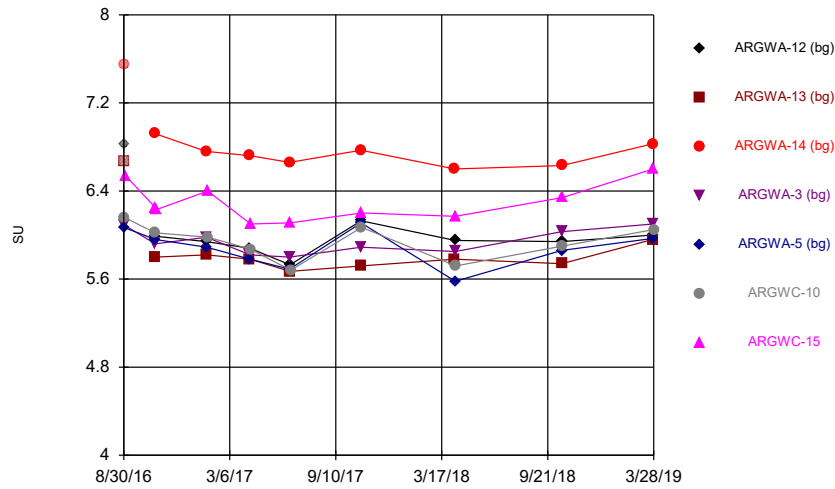
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



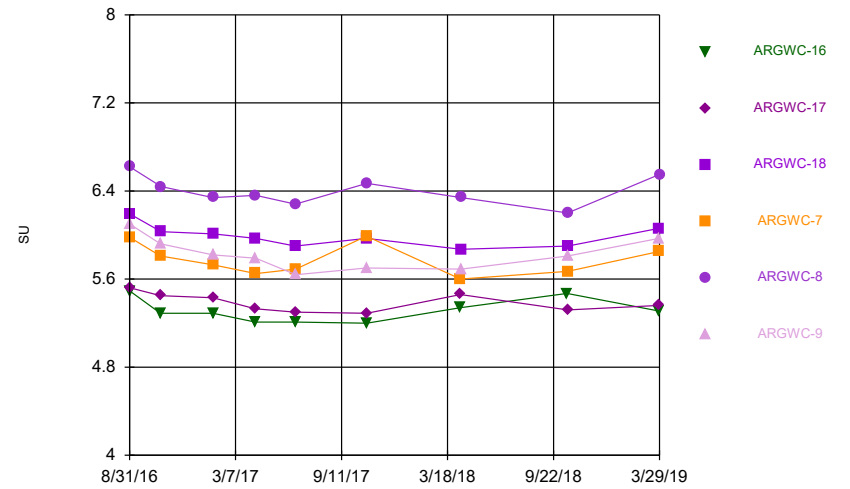
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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



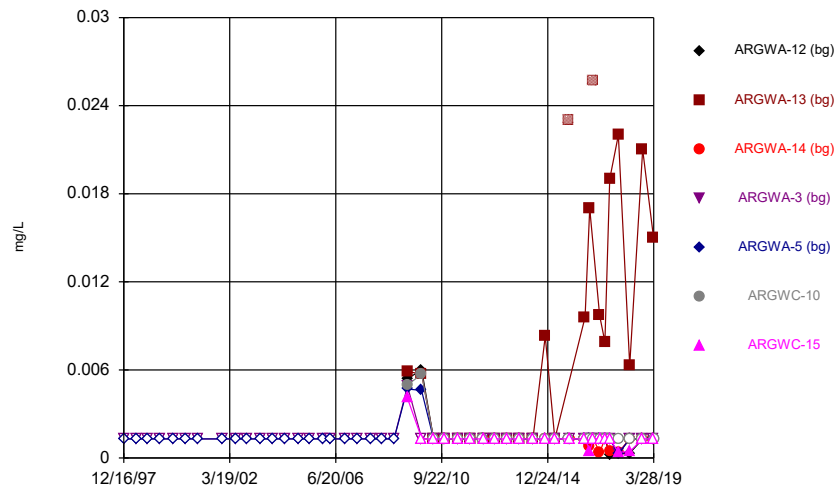
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



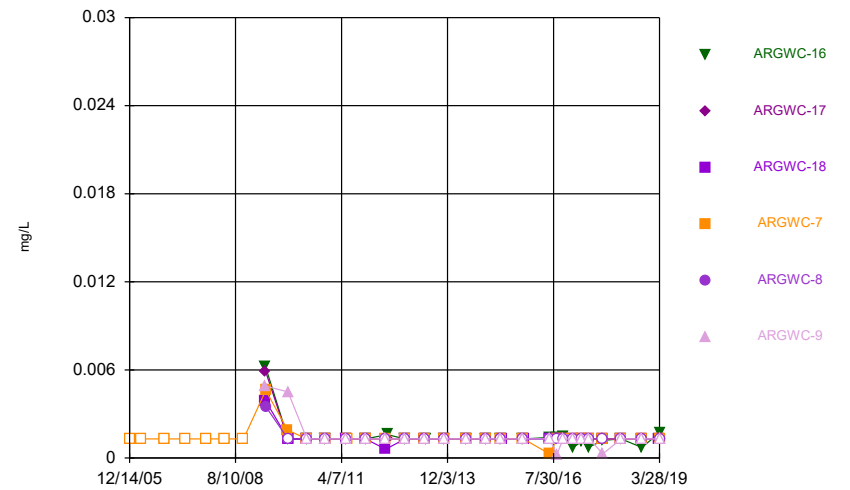
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



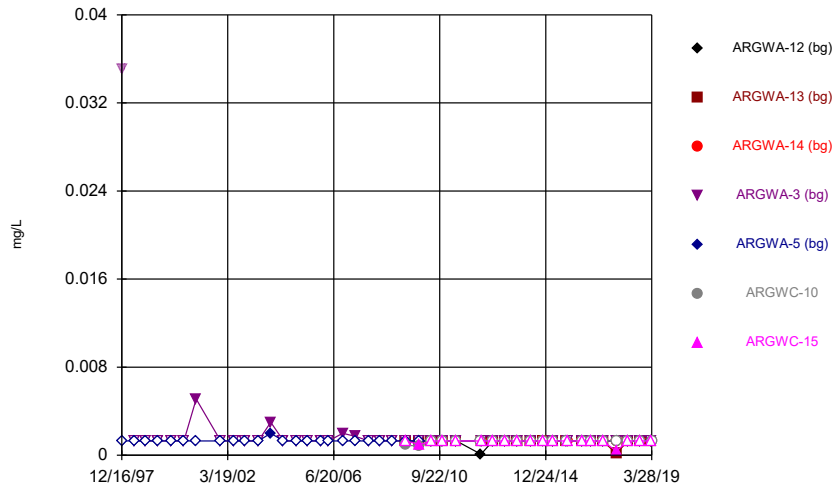
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



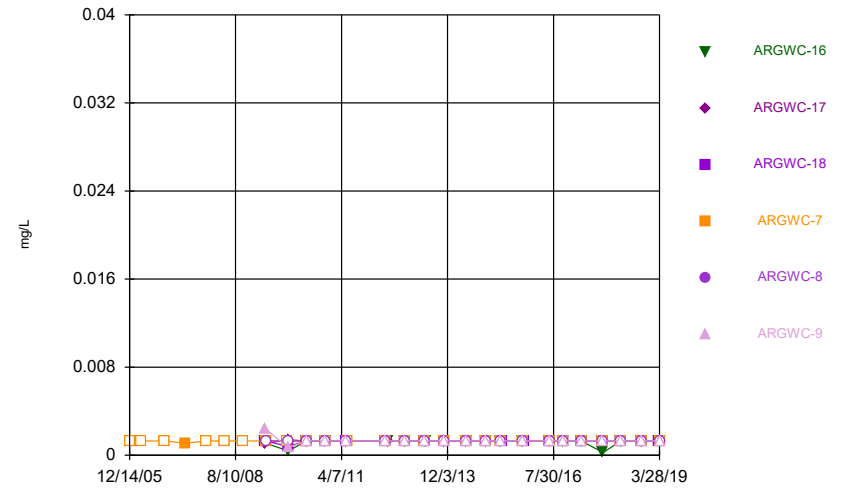
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 Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



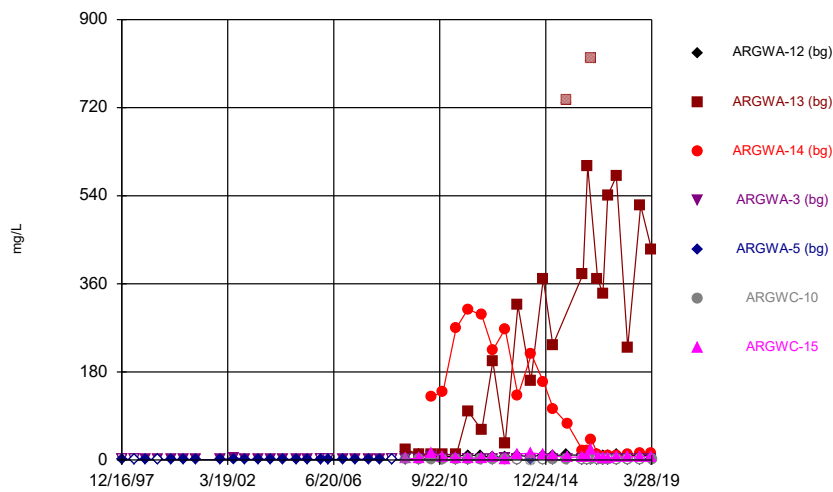
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Time Series



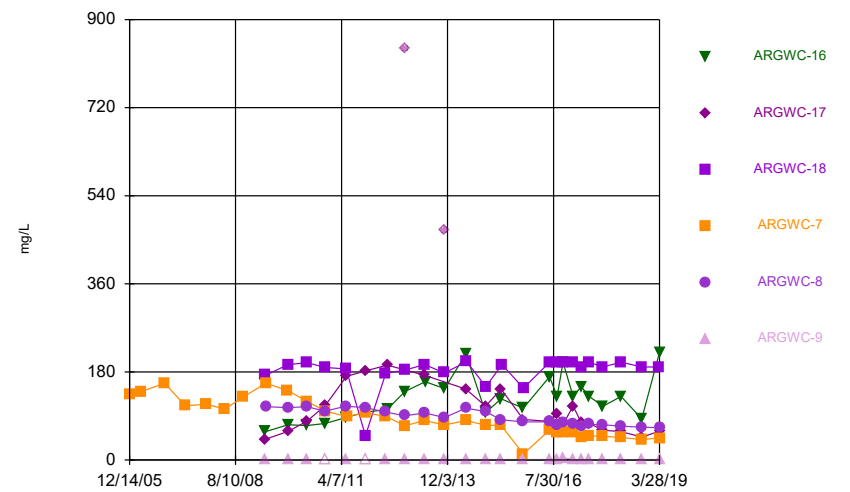
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Time Series



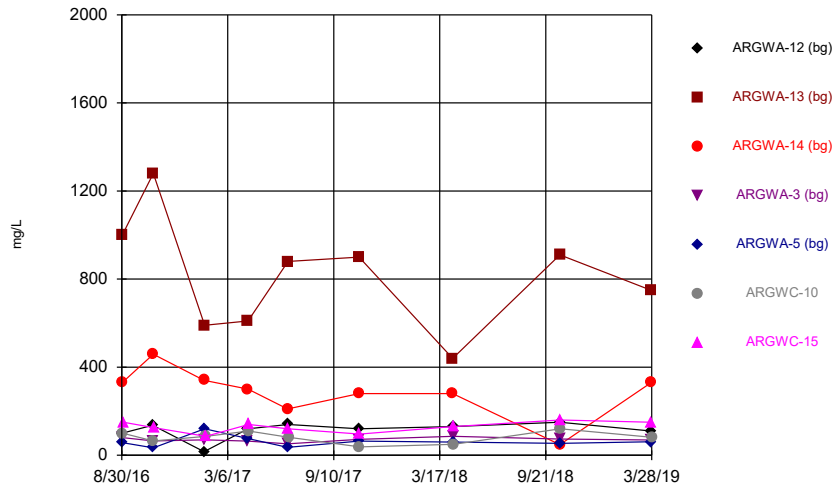
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Time Series



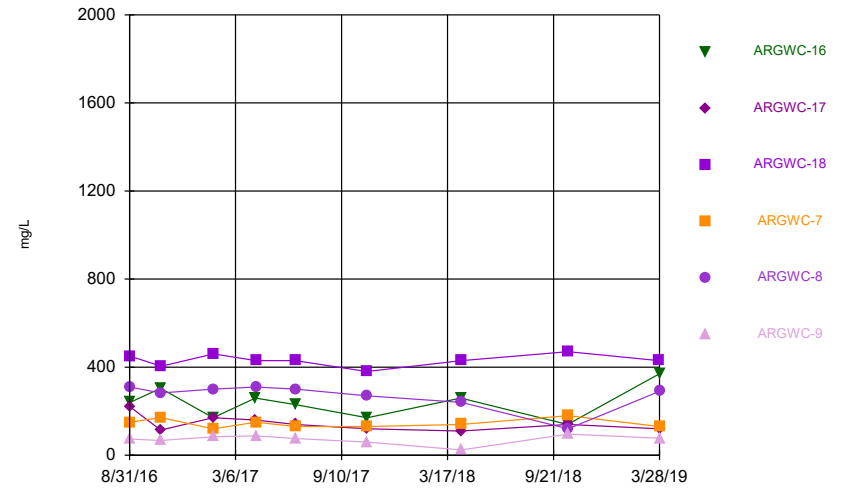
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Time Series



Constituent: Total Dissolved Solids Analysis Run 8/15/2019 5:29 PM View: Time Series
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series



Constituent: Total Dissolved Solids Analysis Run 8/15/2019 5:29 PM View: Time Series
Plant Arkwright Client: Southern Company Data: Arkwright No 3