

**Prepared for:**  
*Georgia Power Company*

## 2017 Annual Groundwater Monitoring and Corrective Action Report

Plant Wansley Coal Combustion By-Product  
Disposal Facility  
Permit No. 074-005D (LI)

January 31, 2018

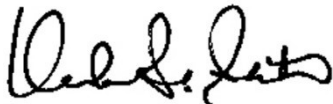
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# Georgia Power Company

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Coal Combustion By-Product Disposal Facility  
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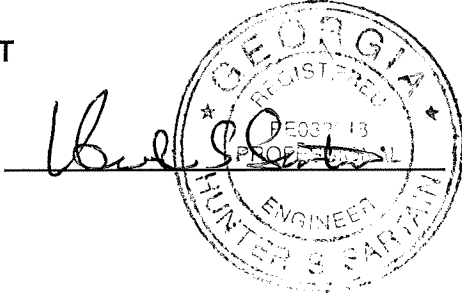


**CERTIFICATION STATEMENT**

This 2017 *Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant Wansley – Coal Combustion By-Product (CCB) Disposal Facility* has been prepared to comply with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) by a licensed Professional Engineer with Environmental Resources Management - Southeast, Inc. (ERM).

**CONSULTANT**

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



Date: \_\_\_\_\_

1/31/18

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## **1.0 INTRODUCTION**

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015), this *2017 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (GPC's) Plant Wansley (the site), Coal Combustion By-Product (CCB) Disposal Facility and satisfy the requirements of §257.90(e). Groundwater monitoring and reporting for the site is performed in accordance with the monitoring requirements §257.90 through §257.98.

This report documents the activities completed to establish the groundwater monitoring program and activities through the 2017 calendar year.

### **1.1 SITE LOCATION AND DESCRIPTION**

The site is located at 1371 Liberty Church Road, in northeast Heard County and southeast Carroll County, Georgia, approximately 12 miles southeast of the city of Carrollton. The plant property encompasses approximately 5,100 acres and is bounded on the east by the Chattahoochee River (Figure 1, Site Location Map). The CCB Disposal Facility is located onsite south of the plant (Figure 2, Site Plan and Well Location Map).

#### **1.1.1 Regional Geology**

Heard County is located in the Piedmont physiographic province of Georgia characterized by low, linear ridges separated by broad, open valleys trending northeast-southwest. Piedmont contains predominately metamorphic rock of Precambrian to Paleozoic age. Over geologic time the Piedmont has experienced multiple events of uplift, folding and faulting, alternation, and erosion.

Soils in the Piedmont formed mostly from the in-place weathering of the underlying crystalline bedrock. Near the ground surface, the soils are silt and clay-rich. Sand and fine sand become more prominent with depth. Also with increasing depth the weathered materials tend to retain details of the structural features of the underlying bedrock.

#### **1.1.2 Site Geology and Hydrogeology**

The site is situated on several bedrock types composed of schist, gneiss, quartzite, and amphibolite identified in boring logs. Residual soils are primarily sandy silt, silty sand, sandy clay and silty clay which overlie bedrock across the site. Saprolitic soils were described at variable thickness across the site, but were generally encountered at or near ground surface.

Groundwater occurs across the site in the overburden soils, as well as in the underlying and hydraulically-connected bedrock. The water table surface at the site is a subdued mimic of the site topography. Top of the rock surface generally follows topography and likely controls groundwater flow direction in the uppermost aquifer as well. Groundwater generally flows to the south and east.

## **1.2 GROUNDWATER MONITORING SYSTEM**

Pursuant to §257.91, GPC installed a groundwater monitoring system within the uppermost aquifer at the CCB Disposal Facility. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCB Disposal Facility within the uppermost aquifer. Well locations were designed to serve as upgradient or downgradient monitoring points based on groundwater flow direction (Table 1, Monitoring Well Network Summary).

## **2.0 GROUNDWATER MONITORING ACTIVITIES**

As required by §257.90(e), the following describes monitoring-related activities performed during the preceding year. Since this is the first *Annual Groundwater Monitoring and Corrective Action Report*, it also describes activities performed prior to 2017 to establish the groundwater monitoring program. All groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the monitoring system shown on Figure 2.

Pursuant to §257.90(e)(3), Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed at the CCB Disposal Facility.

### **2.1 MONITORING WELL INSTALLATION AND MAINTENANCE**

In accordance with §257.91, a groundwater monitoring system was installed that (1) consists of a sufficient number of wells, (2) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer, and (3) meets the performance standards of §257.91(a).

The current monitoring system was installed between February 2011 and July 2011. The monitoring system consists of 35 monitoring wells as shown on Figure 2.

The number, spacing, and depths of the groundwater monitoring wells are selected based on the characterization of site-specific hydrogeologic conditions and certified by a Professional Engineer (PE). Groundwater monitoring wells are designed to monitor the uppermost water-bearing zone.

### **2.2 DETECTION MONITORING**

In accordance with §257.94(b), the detection groundwater monitoring program was implemented by collecting 8 background groundwater samples. In addition, a 9<sup>th</sup> round of groundwater samples were collected as the initial detection monitoring event.

#### **2.2.1 Background Monitoring**

A minimum of 8 independent samples were collected from each monitoring well within the well network and analyzed for Appendix III and IV constituents as part of the background monitoring period prior to October 17, 2017. Pursuant to §257.90(e)(3), data reports for the background sampling events are included in Appendix A, Analytical Data Reports. Background monitoring event analytical data is summarized in Table 5, Plant Wansley CCB Disposal Facility Analytical Data Summary.

### 2.2.2 Initial Detection Monitoring

Following background monitoring (and prior to October 17, 2017), the initial detection monitoring event was completed by collecting an additional round of groundwater samples. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to §257.94(a). Data reports for the initial detection monitoring event are included in Appendix A.

## 3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater monitoring at the CCB Disposal Facility.

### 3.1 GROUNDWATER ELEVATION MEASUREMENT

Prior to each sampling event, groundwater elevations were recorded from each well in the network at the CCB Disposal Facility. Groundwater elevations recorded during the background and detection monitoring events are summarized in Table 3, Summary of Groundwater Elevations. Groundwater elevation data was used to develop a potentiometric surface elevation contour map (Figure 3, Potentiometric Surface Contour Map – October 2017). The general direction of groundwater flow across the site is to the east. The groundwater flow pattern observed during the October 2017 detection monitoring event is consistent with recordings made during the background monitoring period.

### 3.2 GROUNDWATER GRADIENT AND FLOW VELOCITY

The groundwater flow velocity at the CCB Disposal Facility was calculated using a derivation of Darcy's Law. Specifically,

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

Where:

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

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

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

$n_e$  = Effective porosity

The average hydraulic conductivity presented in *Plant Wansley Proposed Coal Combustion By-Product Disposal Facility Site Acceptability Report* (Southern Company Services, 2007) and used in the calculation of groundwater velocity is 1.16 ft/day. An estimated effective porosity of 0.25 is used for the flow rate calculations, based review of several resources (Driscoll, 1986; USEPA, 1989; Freeze and Cherry, 1979). The hydraulic gradient was calculated between well pairs GWA-4/GWC-5, GWA-1/GWC-19, and GWA-2/GWC-16. Groundwater flow velocities were calculated and are tabulated in Table 4, Groundwater Flow Velocity Calculations – October 2017. The



average groundwater flow velocity at the CCB Disposal Facility is approximately 0.19 ft/day, 69.35 ft/year.

### **3.3 GROUNDWATER SAMPLING**

Groundwater samples were collected in accordance with §257.93(a). Purging and sampling was performed using bladder pumps and peristaltic pumps. For wells without dedicated QED bladder pumps, the pumps were lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations using procedures described in the latest version of the Region IV USEPA Science and Ecosystem Support Division (SESD) Operating Procedure for Field Equipment Cleaning and Decontamination as a guide. 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, dissolved oxygen, temperature, and oxidation reduction potential [ORP]) during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 1970-USEPA Compliant Model 2020we® or HANNA Instruments Model HI93703® USEPA and ISO Compliant turbidity meter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- ± 5% for specific conductance
- ± 0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater). No criterion applies if DO < 0.5 mg/L
- Turbidity measurements less than 5 NTU

Once stabilization was achieved, unfiltered samples were collected, placed in ice-packed coolers, and submitted to the analytical laboratory following chain-of-custody protocol.

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

### **3.4 LABORATORY ANALYSES**

Groundwater samples collected for background monitoring included both Appendix III and Appendix IV parameters. Groundwater samples collected in October 2017 for detection monitoring were analyzed for Appendix III monitoring parameters only. Analytical methods used

for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A.

Laboratory analyses were performed by the GPC Environmental Laboratory (GPCEL) in Smyrna, Georgia, or Test America, Inc. (TAL), of Pensacola, Florida, and St. Louis Missouri. Both GPCEL and TAL are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. In addition, GPCEL and TAL laboratories are certified to perform analysis by the State of Georgia. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

### **3.5 QUALITY ASSURANCE & QUALITY CONTROL**

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 detection samples. QA/QC samples included field equipment rinsate blanks (FERB), field blanks (FB), and duplicate (DUP) samples. QA/QC sample data was evaluated during data validation (as described below) and is included in Appendix A.

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

### **4.0 STATISTICAL ANALYSIS**

Statistical analysis of Appendix III groundwater monitoring data was performed pursuant to §257.93 following the PE certified statistical method for the CCB Disposal Facility.

#### **4.1 STATISTICAL METHOD**

The statistical test used to evaluate the groundwater monitoring data will be both the interwell (boron, calcium, chloride and fluoride) and intrawell (pH, sulfate and total dissolved solids [TDS]) prediction limit (PL) method combined with the option of a 1-of-2 and 1-of-3 resample plan, respectively. The interwell PLs pool background data from the network of upgradient wells to calculate a PL, while the intrawell PLs utilize historical data from within a given well to establish a statistical limit for comparison of compliance data at the same well. An “initial exceedance” occurs when any downgradient well data exceed the PL.

If data from a sampling event initially exceed the PL, the resampling strategy may be used to verify the result. In 1-of-2 resampling, one independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. In the 1-of-3 resampling, up to two independent resamples may be collected. If all resamples exceed the PL, the initial

exceedance is verified and a statistically significant increase (SSI) is identified. When the resample result does not verify the initial result and exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance.

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

- Statistical analyses are not performed on analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain less than or equal to 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric prediction limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

The Sanitas Groundwater statistical software was used to perform the statistical analyses. Sanitas is a proprietary decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the Unified Guidance (USEPA, 2009) document.

## **4.2 STATISTICAL ANALYSES RESULTS**

Analytical data from the initial detection monitoring event in October 2017 at the CCB Disposal Facility was statistically analyzed in accordance with the PE-certified statistical method. Initial statistical exceedances were verified through resampling and analysis following the certified statistical method. When exceedances were not verified, an SSI was not identified. The statistical analysis and comparison to PLs are included as Appendix B.

Based on the statistical results presented in Appendix B and the resampling results (Table 6, Plant Wansley CCB Disposal Facility Resample Results), the following SSIs were identified during the initial detection monitoring event:

- Boron: GWC-9 and GWC-14
- Chloride: GWC-14
- Fluoride: GWC-32

Pursuant to §257.94(e), within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that a source other than the CCB Disposal Facility was the cause, or (2) implement assessment monitoring per §257.95.

### **4.3 APPENDIX IV BACKGROUND DATA**

Pursuant to §257.95, Appendix IV groundwater quality data is statistically analyzed and compared to groundwater protection standards if assessment monitoring is implemented. GPC is currently performing detection monitoring per §257.94 and has not implemented assessment monitoring at Plant Wansley CCB Disposal Facility. Therefore, statistical analysis of the Appendix IV data has not been performed.

### **5.0 MONITORING PROGRAM STATUS**

The Plant Wansley CCB Disposal Facility is in detection monitoring. SSIs of Appendix III parameters have been identified. Pursuant to §257.94(e)(1-2), Plant Wansley has 90 days from the date of determination to either (1) prepare a demonstration that a source other than the Plant Wansley CCB Disposal Facility was the cause, or (2) implement assessment monitoring per §257.95. GPC will address the reported SSIs in accordance with the requirements, and options, of §257.94(e)(1-3) and (f).

### **6.0 CONCLUSIONS & FUTURE ACTIONS**

Statistical evaluations of the groundwater monitoring data for the CCB Disposal Facility identified SSIs of Appendix III groundwater monitoring parameters. In accordance with §257.94(e)(1-2), GPC will conduct an alternate source demonstration or initiate assessment monitoring program within 90 days.

The first 2018 semi-annual detection monitoring event is planned for April 2018.

### **7.0 REFERENCES**

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



**Legend**


-  Landfill Cell 1
-  Landfill Cell 2
-  Landfill Cell 3

N



0      3,000      6,000      9,000      12,000  
Feet

1 inch equals 3,000 feet



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SCALE	DRAWING NAME	SHEET	CONTD	REV
As Shown	F1_SiteLoc	1	As Shown	0

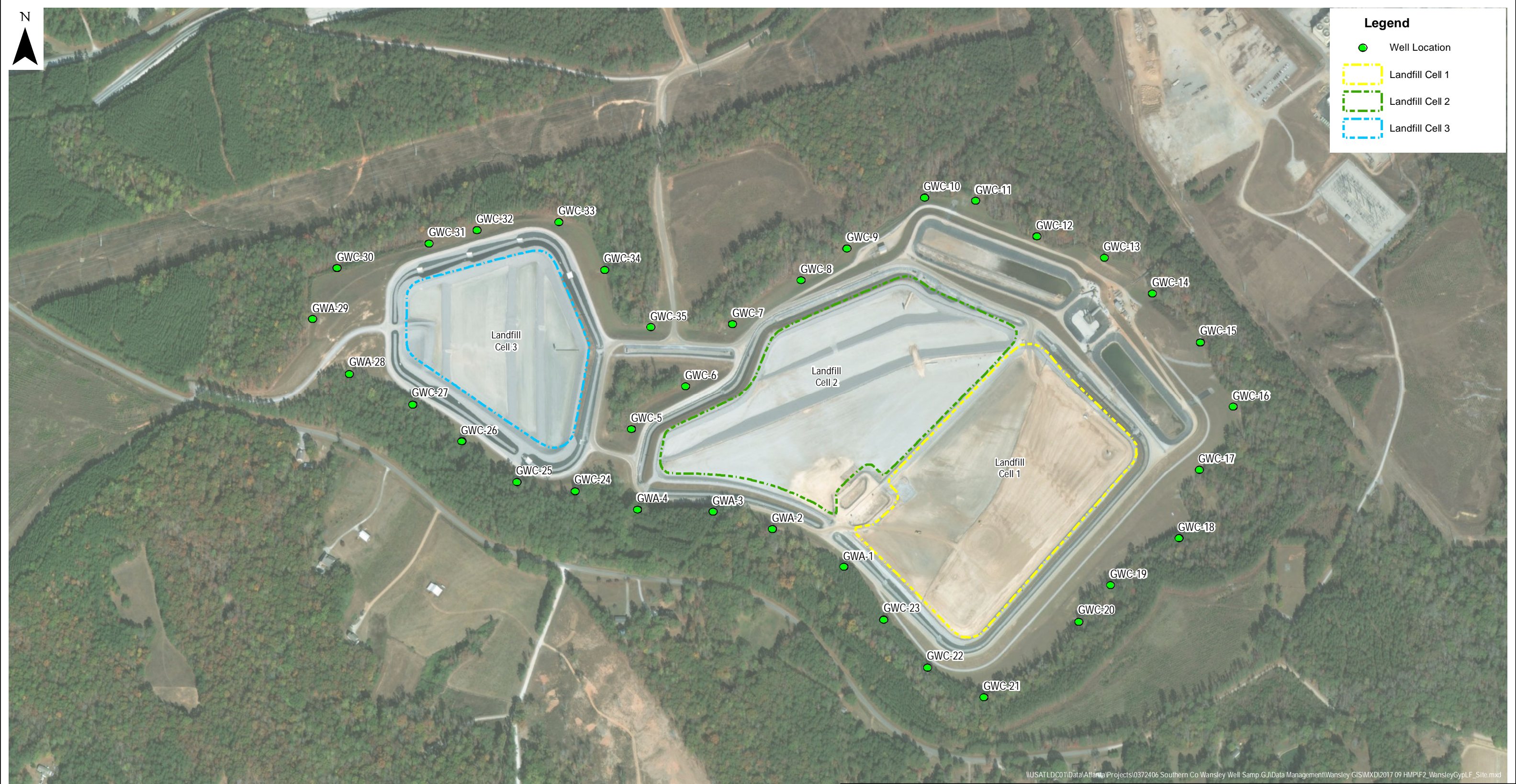
**FIGURE 1**  
SITE LOCATION MAP

PLANT WANSLEY CCB DISPOSAL FACILITY  
LOWELL, CARROLL / HEARD COUNTY, GEORGIA



**Legend**

- Well Location
- Landfill Cell 1
- Landfill Cell 2
- Landfill Cell 3



\\USATLDC011\Data\Atlanta\Projects\0372406 Southern Co Wansley Well Samp.GJData Management\Wansley GIS\MXD\2017 09 HMP\F2\_WansleyGypLF\_Site.mxd



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SCALE	DRAWING NAME	SHEET	CONTD	REV
As Shown	F2_WansleyGypLF_Site	1	As Shown	0

**FIGURE 2**

SITE PLAN AND WELL LOCATION MAP

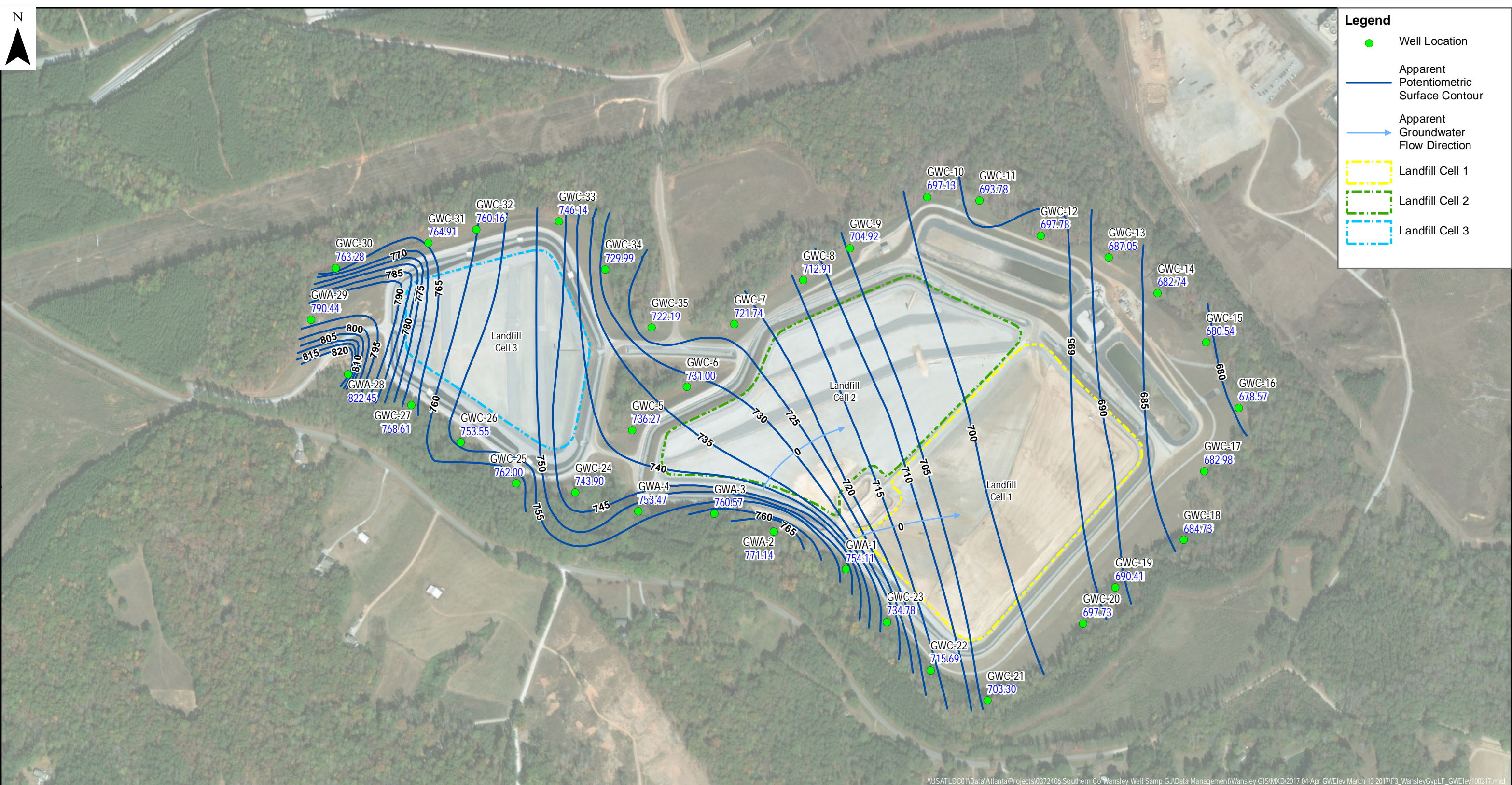
PLANT WANSLEY CCB DISPOSAL FACILITY  
LOWELL, CARROLL / HEARD COUNTY, GEORGIA



1 inch = 500 feet



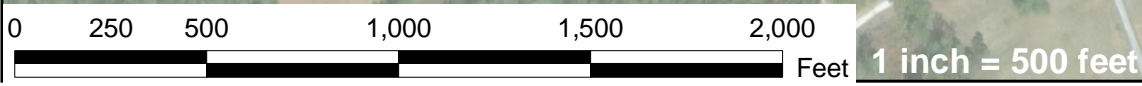
- Legend**
- Well Location
  - Apparent Potentiometric Surface Contour
  - Apparent Groundwater Flow Direction
  - Landfill Cell 1
  - Landfill Cell 2
  - Landfill Cell 3



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<b>FOR</b>		<b>Georgia Power Company</b>		
SCALE	DRAWING NAME	SHEET	CONTD	REV
As Shown	F3_WansleyGypLF_GWElev100217	1	As Shown	0

**FIGURE 3**  
 POTENTIOMETRIC SURFACE MAP -  
 OCTOBER 2017  
 PLANT WANSLEY CCB DISPOSAL FACILITY  
 LOWELL, CARROLL / HEARD COUNTY, GEORGIA





**TABLE 1. MONITORING WELL NETWORK SUMMARY**

Well ID	Hydraulic Location	Installation Date mm/dd/yy	Latitude	Longitude	Top of Casing Elevation (ft MSL)	Total Depth (ft BTOC)	Top of Screen Elevation (ft MSL)	Bottom of Screen Elevation (ft MSL)	Screen Length (ft)
GWA-1	Upgradient	03/03/11	33.397414	-85.047128	778.00	49.85	738.45	728.45	10
GWA-2	Upgradient	03/03/11	33.397974	-85.048403	816.00	60.07	766.23	756.23	10
GWA-3	Upgradient	03/03/11	33.398222	-85.049462	789.98	31.16	769.12	759.12	10
GWA-4	Upgradient	02/11/11	33.398253	-85.050807	779.39	40.61	753.28	743.28	10
GWC-5	Downgradient	02/10/11	33.399454	-85.050929	755.60	40.68	725.22	715.22	10
GWC-6	Downgradient	02/10/11	33.400099	-85.049963	749.78	31.08	729.00	719.00	10
GWC-7	Downgradient	02/10/11	33.401036	-85.049136	730.97	25.90	715.37	705.37	10
GWC-8	Downgradient	02/22/11	33.401701	-85.047926	723.30	20.03	713.57	703.57	10
GWC-9	Downgradient	02/23/11	33.402180	-85.047109	712.56	19.41	703.45	693.45	10
GWC-10	Downgradient	07/12/11	33.402953	-85.045748	709.47	22.00	697.77	687.77	10
GWC-11	Downgradient	02/23/11	33.402906	-85.044817	700.96	18.23	693.03	683.03	10
GWC-12	Downgradient	02/24/11	33.402387	-85.043732	724.22	40.63	693.89	683.89	10
GWC-13	Downgradient	02/28/11	33.402077	-85.042523	693.75	90.42	616.13	606.13	10
GWC-14	Downgradient	06/28/11	33.401549	-85.041658	692.81	24.55	678.56	668.56	10
GWC-15	Downgradient	02/28/11	33.400827	-85.040794	687.57	51.06	646.81	636.81	10
GWC-16	Downgradient	06/28/11	33.399858	-85.040205	690.12	26.97	673.45	663.45	10
GWC-17	Downgradient	06/28/11	33.398916	-85.040808	704.34	53.34	661.30	651.30	10
GWC-18	Downgradient	03/01/11	33.397894	-85.041158	700.20	30.51	679.99	669.99	10
GWC-19	Downgradient	07/13/11	33.397182	-85.042358	700.86	38.56	672.60	662.60	10
GWC-20	Downgradient	03/01/11	33.396639	-85.042922	705.63	71.08	644.85	634.85	10
GWC-21	Downgradient	07/12/11	33.395487	-85.044600	721.07	38.30	693.07	683.07	10
GWC-22	Downgradient	03/02/11	33.395928	-85.045618	744.14	77.15	677.29	667.29	10
GWC-23	Downgradient	03/02/11	33.396642	-85.046399	773.47	68.05	715.72	705.72	10
GWC-24	Downgradient	02/15/11	33.398521	-85.051925	789.98	51.05	749.23	739.23	10
GWC-25	Downgradient	02/15/11	33.398648	-85.052970	812.11	61.23	761.18	751.18	10
GWC-26	Downgradient	02/16/11	33.399246	-85.053957	785.42	59.43	736.29	726.29	10
GWC-27	Downgradient	02/16/11	33.399801	-85.054839	814.07	70.83	753.54	743.54	10
GWA-28	Upgradient	02/22/11	33.400251	-85.055958	849.03	45.78	813.55	803.55	10
GWA-29	Upgradient	06/27/11	33.401055	-85.056623	834.70	57.13	787.87	777.87	10
GWC-30	Downgradient	02/17/11	33.401821	-85.056189	791.03	49.58	751.75	741.75	10
GWC-31	Downgradient	06/21/11	33.402202	-85.054555	797.54	38.02	770.02	760.02	10
GWC-32	Downgradient	02/18/11	33.402413	-85.053713	785.22	31.05	764.47	754.47	10
GWC-33	Downgradient	02/18/11	33.402545	-85.052250	760.03	23.99	746.34	736.34	10
GWC-34	Downgradient	02/21/11	33.401835	-85.051429	735.09	51.25	694.64	684.64	10
GWC-35	Downgradient	02/08/11	33.400977	-85.050595	730.89	40.78	700.41	690.41	10

## Notes:

Wells were constructed of 2-inch inside diameter American Society for Testing and Materials (ASTM)

Schedule 40 PVC casing affixed to a pre-packed dual-wall slotted PVC screen.

ft = feet

MSL = mean sea level

BTOC = below top of casing

NA = Not applicable

**TABLE 2. GROUNDWATER SAMPLING EVENT SUMMARY**

Well ID	Hydraulic Location	Summary of Sampling Events												Status of Monitoring Well
		March 22 - 31, 2016	May 19 - 26, 2016	July 18 - 27, 2016	September 12 - 20, 2016	November 8 - 19, 2016	January 16 - February 8, 2017	March 15 - 28, 2017	April 24 - May 4, 2017	July 19 - 21, 2017	July 31 - August 11, 2017	October 3 - 6, 2017	November 30 - December 1, 2017	
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Detection	Verification	
GWA-1	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWA-2	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWA-3	Upgradient	BG01	BG02	--	--	--	--	--	--	--	BG03	D01	--	Detection
GWA-4	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-5	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-6	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-7	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-8	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-9	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	V01	Detection
GWC-10	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-11	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-12	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-13	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-14	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	V01	Detection
GWC-15	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-16	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-17	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-18	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-19	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-20	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	V01	Detection
GWC-21	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	V01	Detection
GWC-22	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-23	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-24	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-25	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-26	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-27	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWA-28	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWA-29	Upgradient	BG01	BG02	BG03	--	--	BG04	BG05	BG06	BG07	BG08	D01	--	Detection
GWC-30	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-31	Downgradient	BG01	BG02	BG03	--	--	BG04	BG05	BG06	BG07	BG08	D01	--	Detection
GWC-32	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	V01	Detection
GWC-33	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	V01	Detection
GWC-34	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection
GWC-35	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	--	--	D01	--	Detection

Notes:

BGXX = Background Event and Number

DXX = Detection Event Number

VXX = Verification Event Number

-- = Not sampled

**TABLE 3. SUMMARY OF GROUNDWATER ELEVATIONS**

Well ID	Top of Casing Elevation (ft MSL)	Groundwater Elevations (Ft MSL)										
		3/1/2016	5/19/2016	7/18/2016	9/12/2016	11/8/2016	1/16/2017	3/13/2017	4/24/2017	6/6/2017	7/31/2017	10/2/2017
GWA-1	778.00	761.79	759.37	754.51	751.13	748.58	749.18	753.35	754.57	754.37	755.85	754.11
GWA-2	816.00	775.47	774.72	772.51	770.45	768.01	766.85	769.03	769.87	770.35	771.70	771.14
GWA-3	789.98	767.64	764.27	765.84	762.06	759.82	759.08	759.58	759.03	759.08	761.11	760.57
GWA-4	779.39	757.50	757.24	754.63	752.63	750.34	750.01	752.45	753.54	753.72	754.48	753.47
GWC-5	755.60	739.65	737.47	736.64	732.25	730.12	733.06	738.16	737.10	737.62	737.25	736.27
GWC-6	749.78	732.33	731.18	729.65	728.60	727.73	729.44	732.05	731.71	731.73	731.63	731.00
GWC-7	730.97	722.77	722.63	722.22	721.14	718.02	721.94	722.60	722.41	722.62	722.12	721.74
GWC-8	723.30	713.81	713.00	712.96	712.97	712.96	712.95	714.25	712.93	714.75	713.06	712.91
GWC-9	712.56	705.38	704.76	704.48	704.10	704.73	705.34	705.75	705.44	705.46	705.01	704.92
GWC-10	709.47	697.61	697.28	696.94	696.81	696.61	697.17	697.89	697.27	697.89	697.37	697.13
GWC-11	700.96	694.79	694.01	693.53	693.36	693.33	694.27	694.82	694.24	696.47	693.95	693.78
GWC-12	724.22	697.78	697.57	697.43	697.26	697.08	697.43	697.84	707.72	697.79	697.60	697.78
GWC-13	693.75	688.17	687.44	686.92	686.52	686.25	687.19	687.57	687.11	687.63	687.17	687.05
GWC-14	692.81	683.27	682.86	682.59	682.43	682.41	683.00	683.53	682.89	683.96	682.88	682.74
GWC-15	687.57	681.05	680.42	679.85	679.67	679.75	680.89	681.37	680.67	681.44	680.62	680.54
GWC-16	690.12	679.68	678.47	677.44	677.03	676.73	679.57	680.35	679.33	680.22	678.76	678.57
GWC-17	704.34	683.98	682.89	681.03	680.01	679.01	676.36	684.02	683.79	683.99	683.60	682.98
GWA-18	700.20	686.49	684.52	681.02	679.19	677.63	684.25	687.24	686.10	686.72	685.24	684.73
GWC-19	700.86	692.68	690.28	686.26	684.24	682.99	690.46	693.75	691.89	692.86	693.89	690.41
GWC-20	705.63	699.78	698.71	695.66	693.41	691.53	696.58	699.45	698.58	699.18	698.33	697.73
GWC-21	721.07	707.86	705.71	702.07	699.77	697.77	700.64	704.88	704.50	704.77	704.24	703.30
GWC-22	744.14	721.20	720.23	717.68	715.41	713.49	713.52	715.70	716.08	736.29	716.60	715.69
GWC-23	773.47	739.92	739.13	736.93	734.71	732.37	732.59	734.77	735.55	735.07	735.65	734.78
GWC-24	789.98	749.24	749.23	746.67	744.26	741.90	740.50	741.74	742.77	742.48	743.88	743.90
GWC-25	812.11	764.41	763.63	762.6	761.71	760.96	760.12	759.78	760.02	760.68	762.05	762.00
GWC-26	785.42	758.79	757.66	755.91	754.30	752.54	751.32	751.88	752.10	752.46	753.60	753.55
GWC-27	814.07	774.14	772.38	769.98	767.93	766.41	765.35	768.51	768.63	768.37	769.74	768.61
GWA-28	849.03	824.36	823.95	823.2	822.02	820.48	819.02	821.18	823.14	823.57	824.03	822.45
GWA-29	834.70	792.51	790.46	787.09	784.00	780.25	799.06	792.47	791.41	791.64	790.99	790.44
GWC-30	791.03	766.25	764.83	762.51	760.95	759.89	761.31	763.51	763.99	763.95	764.09	763.28
GWC-31	797.54	768.54	762.50	763.68	771.54	760.68	764.19	765.68	766.55	764.2	763.89	764.91
GWC-32	785.22	760.63	759.77	759.39	749.35	758.48	759.16	760.01	759.91	760.15	760.22	760.16
GWC-33	760.03	746.43	736.71	743.5	741.83	741.04	744.71	746.40	745.28	746.45	742.42	746.14
GWC-34	735.09	730.77	730.31	730.03	730.36	730.43	730.88	730.53	730.14	730.7	730.06	729.99
GWC-35	730.89	722.50	722.21	721.93	722.01	722.18	722.25	722.57	722.44	722.77	722.32	722.19

Notes:

ft = feet      NM = not measured

MSL = mean sea level

**TABLE 4. GROUNDWATER VELOCITY CALCULATIONS**

Well ID		$h_1$	$h_2$	K (ft/day)	$n_e$	dh	L (ft)	i (ft/ft)	Velocity (ft/day)
GWA-4	GWC-5	753.47	736.27	1.16	0.25	17.20	420	0.041	0.19
GWA-1	GWC-19	754.11	690.41			63.70	1,425	0.045	0.21
GWA-2	GWC-16	771.14	678.57			92.57	2,590	0.036	0.17
									Average (ft/day)
									0.19

## Notes:

K = hydraulic conductivity

i = hydraulic gradient

 $n_e$  = effective porositydh = difference between  $h_1$  and  $h_2$ ; ft = feet $h_1$  and  $h_2$  = groundwater elevation at location 1 and 2

L = distance between locations 1 and 2

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	
		03/23/2016	05/20/2016	07/21/2016	09/15/2016	11/11/2016	01/19/2017	03/16/2017	04/28/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	0.893	0.784	0.60	0.70	0.59	0.59	0.72	0.72
	Chloride	(250)	1.8057	1.84	1.9	1.8	1.8	1.8	1.7	1.7
	Fluoride	4	ND (0.019 J)	ND (0.02 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND	ND	ND	ND	ND	ND	ND	ND
	TDS	(500)	ND	ND	14	12	ND (4.0 J)	ND	14	ND
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	ND (0.00968 J)	ND (0.0096 J)	0.0087	0.0086	0.0095	0.0087	0.010	0.0091
	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 (0.00044 J)
	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 (0.000097 J)	ND	ND	ND	ND (0.00015 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.215 U	0.339 U	0.451 U	0.296 U	0.118 U	0.0872 U	0.0285 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	
		03/23/2016	05/24/2016	07/26/2016	09/16/2016	11/10/2016	01/19/2017	03/17/2017	04/28/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	3.09	3.51	3.1	3.6	3.7	4.2	3.4	3.9
	Chloride	(250)	2.5102	4.52	4.0	4.1	4.6	5.6	4.4	4.7
	Fluoride	4	ND (0.0276 J)	ND (0.023 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	1.001	ND (0.576 J)	ND (0.91 J)	ND (0.87 J)	ND (0.79 J)	ND (0.87 J)	1.8	1.7
	TDS	(500)	41	51	8.0	40	58	28	ND	ND
APPENDIX IV	Antimony	0.006	ND (0.00069 J)	ND	ND (0.0021 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	ND (0.00773 J)	ND (0.00761 J)	0.0078	0.017	0.016	0.020	0.016	0.016
	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 (0.0019 J)	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND (0.0011 J)	ND	ND	ND	ND (0.00045 J)
	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 (0.00012 J)	ND	ND	ND	ND (0.00015 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.123 U	0.0285 U	0.739	0.469	0.462	0.302 U	0.0122 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	
		03/31/2016	05/25/2016	7/27/2016	9/15/2016	11/19/2016	01/17/217	08/01/2017	10/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	NS	NS	NS	ND	ND
	Calcium	N/R	39.6	28.3	22	NS	NS	NS	72	91
	Chloride	(250)	8.3045	10.1	10	NS	NS	NS	NS	9.5
	Fluoride	4	ND (0.0551 J)	ND (0.0485 J)	ND	NS	NS	NS	NS	ND
	Sulfate	(250)	202.982	95.7	110	NS	NS	NS	NS	150
	TDS	(500)	401	150	250	NS	NS	NS	NS	410
APPENDIX IV	Antimony	0.006	ND (0.000602 J)	ND (0.000642 J)	ND	NS	NS	NS	ND	ND
	Arsenic	0.01	ND	ND	ND	NS	NS	NS	ND	ND
	Barium	2	0.027	0.027	0.029	NS	NS	NS	0.030	0.038
	Beryllium	0.004	ND	ND	ND	NS	NS	NS	ND	ND
	Cadmium	0.005	ND (0.000546 J)	ND (0.000137 J)	ND	NS	NS	NS	ND	ND
	Chromium	0.1	ND	ND	ND	NS	NS	NS	ND	ND (0.0013 J)
	Cobalt	N/R	ND	ND	ND	NS	NS	NS	ND	ND
	Lead	0.015	ND	ND	ND	NS	NS	NS	ND	ND
	Lithium	N/R	ND	ND	ND	NS	NS	NS	ND	ND
	Mercury	0.002	ND	ND	ND (0.00011 J)	NS	NS	NS	ND	ND
	Molybdenum	N/R	ND	ND	ND	NS	NS	NS	ND	ND
	Radium	5	NS	NS	NS	NS	NS	NS	NS	NS
	Selenium	0.05	ND	ND	ND	NS	NS	NS	ND (0.00028 J)	ND
Thallium	0.002	ND	ND	ND	NS	NS	NS	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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	
		03/23/2016	05/19/2016	07/21/2016	09/14/2016	11/10/2016	01/17/2017	03/16/2017	04/27/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	24.2	33.6	30	31	27	26	27	27
	Chloride	(250)	9.041	13.1	17	17	23	14	16	15
	Fluoride	4	ND (0.0713 J)	ND (0.078 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	9.0208	10	10	9.7	8.1	15	9.1	9.6
	TDS	(500)	139	175	170	150	180	130	180	160
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00062 J)	ND	ND	ND	ND	ND
	Barium	2	0.112	0.11	0.14	0.15	0.17	0.18	0.15	0.13
	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 (0.00443 J)	ND (0.00361 J)	0.0058	0.0075	0.010	0.013	0.0059	0.0052
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND (0.0041 J)	ND (0.0046 J)	ND	ND (0.0034 J)	ND (0.0032 J)
	Mercury	0.002	ND	ND	ND (0.000087 J)	ND	ND	ND	ND (0.00016 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.706	1.03	1.58	1.58	1.32	1.59	1.70
	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.
10. NS indicates not sampled due to insufficient water volume.



**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWA-28	GWA-28	GWA-28	GWA-28	GWA-28	GWA-28	GWA-28	GWA-28	GWA-28
		03/22/2016	05/23/2016	07/25/2016	09/15/2016	11/09/2016	01/17/2017	03/16/2017	04/27/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	2.86	2.81	2.4	2.5	2.6	2.4	2.7	2.4
	Chloride	(250)	1.3716	1.33	1.4	1.3	1.4	1.3	1.2	1.2
	Fluoride	4	1.4375	1.62	1.7	1.6	1.7	1.6	1.7	1.4
	Sulfate	(250)	1.1423	1.44	1.1	ND (0.99 J)	1.1	ND (0.85 J)	1.2	ND
	TDS	(500)	69	92	38	64	80	54	40	84
APPENDIX IV	Antimony	0.006	ND	ND (0.00103 J)	ND (0.0021 J)	ND (0.0012 J)	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	ND	ND	ND (0.0010 J)	ND (0.00092 J)	ND (0.0016 J)	ND	ND (0.00055 J)	ND
	Beryllium	0.004	ND	ND	ND (0.00037 J)	ND (0.00039 J)	ND (0.00041 J)	ND (0.00040 J)	ND	ND (0.00042 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	0.0082	0.0044	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 (0.0209 J)	ND (0.021 J)	0.019	0.023	0.021	0.022	0.020	0.016
	Mercury	0.002	ND	ND	ND (0.000089 J)	ND	ND	ND	ND (0.00016 J)	ND
	Molybdenum	N/R	ND (0.00818 J)	ND (0.0085 J)	ND (0.0087 J)	ND (0.0080 J)	ND (0.0075 J)	ND (0.0092 J)	ND (0.0072 J)	ND (0.0076 J)
	Radium	5	0.00 U	0.0870 U	-0.205 U	0.286 U	-0.0899 U	0.0927 U	0.513	0.243 U
	Selenium	0.05	ND	ND	ND (0.00040 J)	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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWA-29	GWA-29	GWA-29	GWA-29	GWA-29	GWA-29	GWA-29	GWA-29	
		03/22/2016	05/19/2016	07/21/2016	01/17/2017	03/15/2017	04/27/2017	07/18/2017	08/01/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND (0.027 J)	ND
	Calcium	N/R	4.65	5.08	4.7	3.7	3.8	3.9	3.9	3.8
	Chloride	(250)	1.5096	1.51	1.6	1.3	1.3	1.4	1.2	1.3
	Fluoride	4	2.2163	2.35	3.2	2.6	1.9	2.5	2.2	2.5
	Sulfate	(250)	8.4662	10	13	7.6	6.3	8.0	6.0	7.7
	TDS	(500)	92	99	100	66	88	92	84	60
APPENDIX IV	Antimony	0.006	ND (0.00113 J)	ND (0.00103 J)	ND (0.0013 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.00064 J)	ND	ND
	Barium	2	ND	ND (0.00265 J)	0.0038	ND (0.0011 J)	ND (0.00085 J)	ND (0.00097 J)	ND (0.0016 J)	ND (0.0011 J)
	Beryllium	0.004	ND (0.00194 J)	ND (0.00188 J)	ND (0.0021 J)	ND (0.0024 J)	ND (0.0020 J)	ND (0.0019 J)	ND (0.0018 J)	ND (0.0019 J)
	Cadmium	0.005	ND	ND (0.000111 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.00684 J)	ND	ND	ND	ND	ND	ND (0.0015 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 (0.0418 J)	ND (0.0415 J)	0.044	0.043	0.038	0.032	0.040	0.038
	Mercury	0.002	ND	ND	ND	ND	ND (0.00014 J)	ND	ND	ND
	Molybdenum	N/R	ND (0.0023 J)	ND (0.00305 J)	ND (0.0039 J)	ND (0.0027 J)	ND	ND (0.0012 J)	ND (0.0022 J)	ND (0.0026 J)
	Radium	5	0.00 U	0.540 U	0.389	0.0658 U	0.717	0.220 U	0.155 U	0.322 U
	Selenium	0.05	ND	ND	ND (0.00045 J)	ND	ND	ND	ND	ND (0.00036 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	
		03/28/2016	05/23/2016	07/21/2016	09/15/2016	11/15/2016	01/26/2017	03/22/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	23.9	26.3	21	20	20	16	17	38
	Chloride	(250)	9.818	10.4	11	10	11	9.2	8.7	13
	Fluoride	4	ND (0.1116 J)	ND (0.1022 J)	ND (0.11 J)	ND (0.084 J)	ND	ND	ND	ND (0.10 J)
	Sulfate	(250)	19.9405	21	17	16	15	13	13	25
	TDS	(500)	172	189	170	180	180	120	110	140
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	0.0207	0.0191	0.018	0.037	0.024	0.025	0.020	0.020
	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 (0.0011 J)	ND	ND	ND (0.0013 J)	0.024	ND
	Cobalt	N/R	0.0101	ND (0.00701 J)	0.0079	0.020	0.011	0.0075	0.0063	0.0036
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND (0.0044 J)	ND	ND	ND (0.0046 J)
	Mercury	0.002	ND	ND	ND (0.000076 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND (0.00215 J)	ND (0.00206 J)	ND (0.0015 J)	ND	ND (0.00091 J)	ND	ND	ND
	Radium	5	0.00 U	0.00344 U	-0.0782 U	0.332 U	0.528 U	-0.0111 U	0.118 U	0.362 U
	Selenium	0.05	ND	ND	ND (0.00025 J)	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	
		03/28/2016	05/24/2016	07/21/2016	09/15/2016	11/16/2016	01/26/2017	03/22/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	10.8	13	12	16	14	13	12	12
	Chloride	(250)	5.312	6.21	6.6	6.1	6.2	5.8	5.2	5.1
	Fluoride	4	ND (0.0752 J)	ND (0.081 J)	ND (0.088 J)	ND (0.084 J)	ND	ND	ND	ND
	Sulfate	(250)	11.0351	12.8	16	15	15	16	13	10
	TDS	(500)	92	115	120	130	150	74	120	82
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	0.0506	0.052	0.049	0.062	0.062	0.062	0.048	0.043
	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	0.0104	ND (0.00926 J)	0.010	0.014	0.015	0.011	0.012	0.0094
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0038 J)	ND (0.0033 J)	0.0050	ND (0.0037 J)	ND (0.0033 J)	ND (0.0044 J)
	Mercury	0.002	ND	ND	ND (0.000091 J)	ND	ND	ND	ND (0.000073 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	-0.01988 U	0.333	0.268 U	0.128 U	0.159 U	-0.263 U	0.401
	Selenium	0.05	ND	ND	ND	ND	ND (0.00031 J)	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND (0.00012 J)	ND	ND	ND	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7
		03/29/2016	05/24/2016	07/22/2016	09/15/2016	11/16/2016	01/26/2017	03/22/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	70.8	63.2	56	60	59	61	56	59
	Chloride	(250)	8.5125	32.8	31	29	32	29	28	26
	Fluoride	4	ND (0.2179 J)	ND (0.216 J)	0.23	0.22	0.22	0.23	0.20	0.21
	Sulfate	(250)	ND (22.385 J)	85.8	86	84	89	85	81	76
	TDS	(500)	517	494	430	460	500	440	440	420
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00049 J)	ND	ND	ND	ND	ND
	Barium	2	0.109	0.0996	0.089	0.097	0.11	0.097	0.083	0.088
	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 (0.00652 J)	ND (0.00462 J)	0.0042	0.0036	0.0044	ND (0.00091 J)	ND (0.0016 J)	0.011
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0126 J)	ND (0.0137 J)	0.0079	0.016	0.015	0.013	0.014	0.012
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.000088 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.38155	0.842	0.335 U	0.655	0.819 U	0.382 U	0.0161 U	0.271 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.
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	
		03/29/2016	05/24/2016	07/26/2016	09/19/2016	11/16/2016	01/26/2017	03/23/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND (0.022 J)	ND	ND	ND	ND	ND	ND
	Calcium	N/R	27.2	30.8	24	30	30	29	33	28
	Chloride	(250)	3.5914	3.16	5.9	5.4	6.2	3.6	3.9	6.1
	Fluoride	4	ND (0.0698 J)	ND (0.072 J)	ND (0.092 J)	ND	ND	ND	ND	ND
	Sulfate	(250)	15.2958	18.5	19	31	36	49	21	17
	TDS	(500)	172	196	160	220	240	130	190	160
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	0.05	0.051	0.044	0.043	0.053	0.043	0.053	0.047
	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	0.0208	0.0649	0.044	0.059	0.064	ND (0.0017 J)	0.025	0.047
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	0.0092	0.011	0.014	0.010	0.0070	0.0073
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND	ND (0.000072 J)	ND
	Molybdenum	N/R	ND	ND	ND (0.0012 J)	ND (0.0025 J)	ND (0.0021 J)	ND	ND	ND (0.0040 J)
	Radium	5	0.00 U	1.05	0.646	0.934	0.629	0.246 U	0.142 U	0.0564 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	0.0018
Thallium	0.002	ND	ND	ND	ND	ND (0.000090 J)	ND (0.00012 J)	ND	ND (0.00016 J)	

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
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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).
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9
		03/29/2016	05/24/2016	07/25/2016	09/19/2016	11/16/2016	01/31/2017	03/23/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND (0.0635 J)	ND (0.0981 J)	0.26	0.38	0.44	0.11	0.071	0.089
	Calcium	N/R	12.6	14.9	23	25	28	18	19	18
	Chloride	(250)	7.395	16.4	55	73	83	17	8.2	11
	Fluoride	4	ND (0.0671 J)	ND (0.06 J)	ND (0.096 J)	ND	ND	ND	ND (0.12 J)	ND
	Sulfate	(250)	14.6203	14.7	20	22	22	44	29	18
	TDS	(500)	93	162	200	340	280	160	230	150
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00046 J)	ND	ND	ND (0.0011 J)	ND (0.00076 J)	ND
	Barium	2	0.11	0.17	0.17	0.18	0.18	0.10	0.12	0.11
	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 (0.0015 J)	ND (0.0021 J)	ND (0.0016 J)
	Cobalt	N/R	0.0328	0.0334	0.051	0.055	0.061	0.15	0.091	0.049
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0046 J)	0.0068	0.0056	0.0064	0.0050	ND (0.0034 J)
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND (0.000086 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.0041 J)	ND (0.0059 J)	ND
	Radium	5	0.00 U	0.359 U	0.278 U	0.774	0.504 U	0.690	0.353	0.255 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND (0.00053 J)	ND	ND
Thallium	0.002	ND	ND	ND	ND (0.00026 J)	ND (0.00015 J)	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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10
		03/30/2016	05/25/2016	07/27/2016	09/16/2016	11/17/2016	02/01/2017	03/24/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	27.6	28.5	29	27	29	26	24	29
	Chloride	(250)	3.7204	3.89	6.5	5.9	7.9	4.9	2.6	3.9
	Fluoride	4	1.2013	1.34	1.5	1.3	0.76	1.3	1.3	1.1
	Sulfate	(250)	24.0688	20.7	28	29	40	40	28	38
	TDS	(500)	177	181	210	190	240	120	180	170
APPENDIX IV	Antimony	0.006	ND	ND (0.000703 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0127	0.014	0.030	0.017	0.028	0.023	0.012	0.024
	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	0.0029	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0025 J)	ND (0.00272 J)	0.0052	0.0048	0.0095	0.0090	0.0026	0.0073
	Lead	0.015	ND	ND	0.0013	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.0109 J)	0.012	0.011	0.012	0.0079	0.011	0.0078
	Mercury	0.002	ND	ND	ND (0.000094 J)	ND	ND	ND (0.00011 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	NS	NS	NS	NS	7.54	4.64	4.30	4.87
	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.
10. NS indicates not sampled due to insufficient water volume.



**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	GWC-11	
		03/29/2016	05/25/2016	07/25/2016	09/19/2016	11/16/2016	01/31/2017	03/23/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	15	18.5	14	18	15	8.0	9.3	14
	Chloride	(250)	3.4214	5.33	5.8	5.2	6.7	2.1	2.0	3.3
	Fluoride	4	ND (0.1377 J)	ND (0.1521 J)	0.21	ND (0.15 J)	ND (0.14 J)	ND	ND (0.097 J)	ND (0.11 J)
	Sulfate	(250)	ND	ND	ND	ND	ND	3.7	1.5	ND
	TDS	(500)	163	197	220	240	200	110	140	180
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00165 J)	ND (0.00191 J)	0.0016	0.0021	ND (0.0012 J)	ND (0.0010 J)	ND (0.00076 J)	ND (0.0012 J)
	Barium	2	0.372	0.396	0.25	0.33	0.29	0.19	0.24	0.34
	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 (0.00213 J)	ND (0.0015 J)	ND (0.0022 J)	ND (0.0020 J)	ND (0.0022 J)	ND (0.0020 J)	ND (0.0019 J)
	Cobalt	N/R	ND (0.00664 J)	0.0102	0.0059	0.0061	0.0050	0.012	0.013	0.013
	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 (0.000096 J)	ND	ND	ND (0.000071 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	2.53416	1.15	0.694	1.37	1.35	0.636	0.679	1.22
	Selenium	0.05	ND	ND	ND (0.00041 J)	ND (0.00084 J)	ND	ND (0.00033 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	GWC-12	
		03/29/2016	05/25/2016	07/22/2016	09/15/2016	11/16/2016	01/31/2017	03/23/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	32.6	38.3	32	33	34	40	37	41
	Chloride	(250)	10.931	10.5	13	13	14	17	20	18
	Fluoride	4	ND (0.1936 J)	ND (0.1797 J)	0.22	ND (0.18 J)	ND (0.16 J)	ND (0.19 J)	ND (0.17 J)	ND (0.19 J)
	Sulfate	(250)	19.1889	19.8	20	20	19	23	23	22
	TDS	(500)	151	175	130	160	230	170	220	150
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00047 J)	ND	ND	ND	ND	0.0024
	Barium	2	0.0179	0.0173	0.017	0.017	0.018	0.022	0.019	0.020
	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	ND	ND	0.0053	ND (0.0046 J)	ND (0.0040 J)	ND (0.0041 J)	ND (0.0038 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.00013 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	4.6751	3.79	3.92	4.43	5.17	7.33	5.03	4.82
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	GWC-13	
		03/29/2016	05/25/2016	07/26/2016	09/15/2016	11/17/2016	01/31/2017	03/23/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	3.91	4.06	3.7	3.7	3.5	4.1	3.9	4.1
	Chloride	(250)	1.3057	1.27	1.4	1.3	1.2	1.2	1.2	1.1
	Fluoride	4	ND (0.1084 J)	ND (0.1002 J)	ND (0.12 J)	ND (0.10 J)	ND (0.092 J)	ND (0.11 J)	ND (0.088 J)	ND (0.098 J)
	Sulfate	(250)	2.8316	2.62	2.7	2.6	2.2	2.6	2.6	2.6
	TDS	(500)	48	61	40	54	64	36	76	32
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.00067 J)	ND
	Barium	2	ND (0.00337 J)	ND (0.0028 J)	ND (0.0023 J)	0.0026	0.0027	0.0029	0.0032	0.0028
	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	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND (0.000096 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND (0.0047 J)	ND
	Radium	5	0.00 U	-0.151 U	0.250 U	0.212 U	0.517	0.530	0.0981 U	0.293 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	0.0021	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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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).
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	GWC-14	
		03/30/2016	05/25/2016	07/26/2016	09/15/2016	11/17/2016	02/01/2017	03/23/2017	05/03/2017	
APPENDIX III	Boron	N/R	0.291	0.443	1.1	0.61	1.0	0.29	0.44	0.44
	Calcium	N/R	13.8	22.2	28	30	46	15	18	18
	Chloride	(250)	49.11	65.8	64	110	180	46	68	49
	Fluoride	4	ND (0.0355 J)	ND (0.0265 J)	ND (0.10 J)	ND	ND	ND	ND	ND
	Sulfate	(250)	7.2023	10.5	38	13	18	8.2	10	10
	TDS	(500)	165	233	330	350	440	150	250	190
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00096 J)	ND	ND	ND	ND	ND
	Barium	2	0.0943	0.117	0.11	0.16	0.27	0.088	0.11	0.10
	Beryllium	0.004	ND	ND	ND	ND (0.00044 J)	ND (0.00055 J)	ND	ND	ND
	Cadmium	0.005	ND (0.000222 J)	ND (0.000327 J)	ND	ND (0.00053 J)	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	0.176	0.0616	0.32	0.014	0.010	0.20	0.14	0.23
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND (0.0036 J)	0.0056	ND	ND (0.0036 J)	ND
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND (0.000087 J)	ND (0.000092 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.709	0.935	0.925	1.51	0.437	0.657	0.452
	Selenium	0.05	ND (0.00273 J)	ND	ND	ND	ND (0.00047 J)	ND	ND	ND
Thallium	0.002	ND (0.000411 J)	ND (0.000445 J)	0.0013	ND (0.00033 J)	ND (0.00041 J)	ND (0.00041 J)	ND (0.00040 J)	0.00058	

Notes:

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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-15	GWC-15	GWC-15	GWC-15	GWC-15	GWC-15	GWC-15	GWC-15	
		03/30/2016	05/25/2016	07/26/2016	09/20/2016	11/17/2016	02/01/2017	03/23/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND (0.0787 J)	ND (0.0536 J)	ND	ND	ND	ND (0.023 J)	ND (0.042 J)	ND (0.034 J)
	Calcium	N/R	13.3	10.6	7.2	6.9	6.1	9.6	9.9	9.4
	Chloride	(250)	9.921	6.31	3.6	2.7	2.5	5.4	6.6	5.1
	Fluoride	4	ND (0.0785 J)	ND (0.0757 J)	ND (0.11 J)	ND	ND	ND (0.086 J)	ND	ND
	Sulfate	(250)	1.7296	1.52	1.2	ND (0.85 J)	ND (0.83 J)	1.9	1.6	1.3
	TDS	(500)	94	90	64	72	46	70	100	84
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	0.0136	ND (0.00957 J)	0.0068	0.0070	0.0072	0.0090	0.011	0.0092
	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 (0.0010 J)	ND	ND (0.0013 J)	ND (0.00055 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	0.0050	0.0050	0.0061	0.0061	0.0069	ND (0.0046 J)
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND (0.00013 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.232 U	0.128 U	0.170 U	0.260 U	0.357 U	-0.0355 U	0.255 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.
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3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-16	GWC-16	GWC-16	GWC-16	GWC-16	GWC-16	GWC-16	GWC-16	
		03/30/2016	05/25/2016	07/27/2016	09/16/2016	11/17/2016	02/01/2017	03/24/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	6.72	7.09	6.4	6.7	6.3	6.8	6.3	6.9
	Chloride	(250)	1.4751	1.43	1.7	1.5	1.4	1.4	1.3	1.3
	Fluoride	4	ND (0.0391 J)	ND (0.034 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.5433 J)	ND (0.4393 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	75	91	76	78	110	70	100	18
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	0.0174	0.0173	0.016	0.016	0.017	0.018	0.017	0.017
	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 (0.00261 J)	ND (0.00238 J)	0.0025	ND (0.0023 J)	ND (0.0022 J)	ND (0.0024 J)	0.0026	ND (0.0022 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 (0.000089 J)	ND	ND	ND (0.00015 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.346 U	-0.0460 U	0.426	0.596	0.141 U	0.420	0.301 U
	Selenium	0.05	ND	ND	ND (0.00029 J)	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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-17	GWC-17	GWC-17	GWC-17	GWC-17	GWC-17	GWC-17	GWC-17	GWC-17
		03/30/2016	05/25/2016	07/27/2016	09/19/2016	11/17/2016	02/01/2017	03/24/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	8.15	8.68	7.9	7.8	7.5	8.7	7.5	8.2
	Chloride	(250)	1.3046	1.31	1.4	1.3	1.3	1.2	1.1	1.2
	Fluoride	4	ND (0.0422 J)	ND (0.045 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.8313 J)	ND (0.795 J)	ND (0.70 J)	ND	ND (0.75 J)	ND	ND	ND
	TDS	(500)	97	97	110	110	74	100	110	28
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	0.0178	0.0169	0.016	0.016	0.017	0.017	0.016	0.016
	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 (0.00090 J)	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	0.0053	ND	ND
	Mercury	0.002	ND	ND	ND (0.000097 J)	ND	ND	0.00020	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.206 U	0.233 U	0.319 U	0.177 U	0.420	-0.0628 U	0.153 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	
		03/30/2016	05/26/2016	07/25/2016	09/19/2016	11/17/2016	02/01/2017	03/24/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	6.88	6.42	5.3	5.4	5.5	7.3	6.4	6.8
	Chloride	(250)	1.9012	1.78	1.7	1.6	1.5	1.9	1.8	1.6
	Fluoride	4	ND (0.0362 J)	ND (0.038 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.6239 J)	ND (0.598 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	84	80	54	96	42	66	88	64
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0022 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.00056 J)	ND	ND	ND	ND	ND
	Barium	2	0.0349	0.0323	0.031	0.028	0.033	0.037	0.037	0.034
	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 (0.0014 J)	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	ND	ND	ND	ND (0.0034 J)	ND (0.0035 J)	ND	ND
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND (0.000098 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.172 U	0.308 U	0.326 U	0.478	0.207 U	0.223 U	0.244 U
	Selenium	0.05	ND	ND	ND (0.00073 J)	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.
10. NS indicates not sampled due to insufficient water volume.



**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	
		03/30/2016	05/26/2016	07/25/2016	09/19/2016	11/17/2016	02/02/2017	03/24/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	8.32	6.78	4.7	4.3	4.1	14	8.7	9.9
	Chloride	(250)	2.2278	1.53	1.5	1.4	1.4	3.1	2.1	1.8
	Fluoride	4	ND (0.0369 J)	ND (0.031 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	2.3237	ND (0.574 J)	ND	ND	ND	8.6	2.5	ND (0.88 J)
	TDS	(500)	69	75	44	74	34	96	82	42
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	0.0986	0.0687	0.047	0.039	0.046	0.085	0.079	0.10
	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	0.011	ND (0.0016 J)	ND (0.0017 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	0.0013
	Lithium	N/R	ND	ND (0.0105 J)	ND (0.0034 J)	ND	ND	0.0054	ND (0.0041 J)	0.0062
	Mercury	0.002	ND	ND	ND (0.00013 J)	ND	ND	ND (0.00011 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.286 U	0.121 U	0.408	0.0511 U	0.110 U	0.250 U	0.395
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	
		03/30/2016	05/26/2016	07/25/2016	09/20/2016	11/17/2016	02/02/2017	03/28/2017	05/04/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	8.78	9.13	7.7	8.9	7.9	8.9	7.9	9.1
	Chloride	(250)	2.0074	2	2.1	2.0	1.9	1.9	1.8	1.9
	Fluoride	4	ND (0.04 J)	ND (0.041 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	1.0356	ND (0.979 J)	ND (0.94 J)	ND (0.83 J)	ND (0.71 J)	ND (0.82 J)	ND (0.75 J)	1.1
	TDS	(500)	88	65	80	84	84	100	82	88
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	0.0344	0.0336	0.030	0.035	0.034	0.035	0.031	0.035
	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 (0.00042 J)	ND (0.00064 J)	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0035 J)	ND	ND	ND (0.0041 J)	ND (0.0033 J)	ND
	Mercury	0.002	ND	ND	ND (0.00011 J)	ND	ND	ND (0.000086 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	-0.0138 U	0.102 U	0.512	0.548	0.287 U	-0.0111 U	0.0106 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	
		03/30/2016	05/26/2016	07/26/2016	09/20/2016	11/17/2016	02/02/2017	03/28/2017	05/04/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	2.98	3.16	2.9	3.6	2.8	3.3	3.2	3.1
	Chloride	(250)	3.9326	3.59	3.3	3.1	3.0	ND	3.4	3.4
	Fluoride	4	ND (0.0137 J)	ND (0.014 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.3269 J)	ND	ND	ND	ND	ND	ND	ND
	TDS	(500)	42	42	48	56	34	36	48	22
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	0.0293	0.0237	0.016	0.014	0.012	0.014	0.021	0.020
	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 (0.00040 J)	ND (0.00047 J)	ND (0.00043 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	0.012	ND	ND
	Mercury	0.002	ND	ND	ND (0.00013 J)	ND (0.000072 J)	ND (0.000084 J)	ND (0.00011 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.0164 U	0.0143 U	-0.0679 U	-0.0892U	0.0190 U	0.124 U	0.146 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	
		03/31/2016	05/26/2016	07/26/2016	09/20/2016	11/17/2016	02/03/2017	03/28/2017	05/03/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	11.5	11.5	9.5	11	10	11	9.8	10
	Chloride	(250)	1.8479	1.71	1.8	1.7	1.7	1.6	1.5	1.5
	Fluoride	4	ND (0.0429 J)	ND (0.048 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.3648 J)	ND (0.562 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	102	108	82	100	110	110	98	98
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0010 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0249	0.0235	0.021	0.026	0.025	0.027	0.024	0.025
	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 (0.0011 J)	ND	ND (0.0011 J)	0.0027	ND (0.0018 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 (0.0042 J)	ND	ND
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND (0.00013 J)	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.0209 U	0.155 U	0.220 U	0.264 U	0.0853 U	0.251 U	0.193 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23
		03/29/2016	05/25/2016	07/27/2016	09/20/2016	11/18/2016	02/03/2017	03/28/2017	05/04/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	3.32	3.4	2.9	3.3	2.9	3.3	3.1	3.3
	Chloride	(250)	1.9463	1.96	2.1	1.9	1.8	1.9	1.8	1.8
	Fluoride	4	ND (0.0308 J)	ND (0.0285 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.5302 J)	ND (0.3659 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	53	33	30	42	ND (4.0 J)	20	38	54
APPENDIX IV	Antimony	0.006	ND (0.000665 J)	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0114	ND (0.00579 J)	0.0043	0.0056	0.0043	0.0050	0.0041	0.0063
	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 (0.00226 J)	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	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000086 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	-0.0266 U	-0.00916 U	0.362 U	0.345 U	0.0653 U	0.247 U	0.105 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.
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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).
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID									
		GWC-24	GWC-24	GWC-24	GWC-24	GWC-24	GWC-24	GWC-24	GWC-24	GWC-24	GWC-24
		03/30/2016	05/25/2016	07/27/2016	09/16/2016	11/18/2016	02/03/2017	02/08/2017	03/29/2017	05/04/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	NS	ND	ND
	Calcium	N/R	1.01	0.69	0.40	1.3	1.3	1.2	NS	1.3	1.6
	Chloride	(250)	4.6264	4.6	4.9	3.6	3.4	3.6	NS	3.2	3.2
	Fluoride	4	ND (0.0255 J)	ND (0.0182 J)	ND	ND	ND	ND	NS	ND	ND
	Sulfate	(250)	1.0189	ND (0.6811 J)	ND	ND	ND	ND	NS	ND	ND
	TDS	(500)	39	30	28	22	28	26	NS	28	30
APPENDIX IV	Antimony	0.006	ND (0.00174 J)	ND (0.00163 J)	ND (0.0019 J)	ND (0.0020 J)	ND (0.0011 J)	ND	NS	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND (0.00055 J)	ND	NS	ND	ND
	Barium	2	ND (0.00874 J)	ND (0.00545 J)	0.0047	0.018	0.022	0.020	NS	0.020	0.023
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	NS	ND	ND
	Cadmium	0.005	ND (0.000124 J)	ND	ND	ND	ND	ND (0.0021 J)	NS	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND (0.0011 J)	NS	ND	ND
	Cobalt	N/R	ND	ND	ND (0.00095 J)	0.0053	ND (0.0011 J)	ND (0.00097 J)	NS	ND (0.00059 J)	ND (0.0011 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	NS	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND (0.0040 J)	ND (0.0043 J)	NS	ND	ND
	Mercury	0.002	ND	ND	ND (0.000090 J)	ND	ND	ND	NS	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	NS	ND	ND
	Radium	5	NS	NS	NS	NS	NS	NS	0.610	0.215 U	0.198 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	NS	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	NS	ND	ND	

Notes:

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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-25	GWC-25	GWC-25	GWC-25	GWC-25	GWC-25	GWC-25	GWC-25	
		03/28/2016	05/25/2016	07/27/2016	09/19/2016	11/15/2016	01/24/2017	03/23/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	12.3	7.2	5.4	8.4	10	14	13	41
	Chloride	(250)	5.992	8.14	6.3	5.1	3.9	3.6	3.2	3.5
	Fluoride	4	ND (0.0542 J)	ND (0.034 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	8.3151	4.31	6.1	11	18	26	23	27
	TDS	(500)	90	75	78	100	110	96	96	100
APPENDIX IV	Antimony	0.006	ND	ND (0.00151 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.00061 J)	ND	ND (0.00085 J)
	Barium	2	0.0383	0.0439	0.037	0.041	0.033	0.040	0.032	0.041
	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	0.0043	ND	0.015
	Cobalt	N/R	0.0117	0.0122	0.0065	0.0071	0.029	0.033	0.022	0.036
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	0.0021
	Lithium	N/R	ND	ND	ND	ND	0.0052	ND (0.0046 J)	ND (0.0035 J)	0.0062
	Mercury	0.002	ND	ND	ND (0.000098 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND (0.0017 J)	ND (0.0024 J)	ND (0.0015 J)	ND (0.0022 J)
	Radium	5	0.00 U	0.269 U	0.179 U	0.0122 U	0.617	0.139 U	0.405 U	0.199 U
	Selenium	0.05	ND	ND	ND (0.00033 J)	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-26	GWC-26	GWC-26	GWC-26	GWC-26	GWC-26	GWC-26	GWC-26	
		03/24/2016	05/25/2016	07/26/2016	09/19/2016	11/14/2016	01/19/2017	03/16/2017	05/01/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	1.72	1.68	1.4	1.5	1.8	1.6	1.7	1.6
	Chloride	(250)	2.8217	2.93	3.0	2.9	2.8	2.8	2.7	2.8
	Fluoride	4	ND (0.0318 J)	ND (0.0282 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	ND (0.4337 J)	ND (0.3421 J)	ND	ND	ND	ND	ND	ND
	TDS	(500)	48	42	20	48	40	10	ND	10
APPENDIX IV	Antimony	0.006	ND (0.000653 J)	ND (0.000943 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0362	0.0348	0.028	0.029	0.036	0.034	0.035	0.030
	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 (0.00061 J)	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 (0.00012 J)	ND	ND	ND	ND (0.00014 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND (0.0034 J)
	Radium	5	0.00 U	0.525 U	0.0329 U	0.240 U	0.731	0.805 U	0.113 U	0.133 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	0.0018
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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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. NS indicates not sampled due to insufficient water volume.



**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-27	GWC-27	GWC-27	GWC-27	GWC-27	GWC-27	GWC-27	GWC-27	GWC-27
		03/23/2016	05/24/2016	07/26/2016	09/19/2016	11/11/2016	01/20/2017	03/16/2017	04/28/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	1.73	0.745	1.4	1.2	3.3	2.2	1.0	0.88
	Chloride	(250)	1.0825	1.08	1.1	1.0	ND (0.97 J)	ND (0.99 J)	1.0	ND (0.96 J)
	Fluoride	4	0.4759	ND (0.198 J)	1.2	0.64	1.2	0.83	0.32	0.83
	Sulfate	(250)	1.3897	ND (0.598 J)	3.0	1.6	3.0	2.2	ND (0.95 J)	2.1
	TDS	(500)	46	34	16	52	56	38	32	46
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0013 J)	ND	ND	ND (0.0014 J)	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0107	ND (0.00672 J)	0.0085	0.0080	0.017	0.013	0.0096	0.0097
	Beryllium	0.004	ND (0.00229 J)	ND	ND (0.0015 J)	ND (0.0013 J)	0.0057	0.0030	ND (0.0018 J)	ND (0.00075 J)
	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 (0.00275 J)	ND (0.0024 J)	0.0043	ND (0.0024 J)	ND (0.0018 J)	0.0027	ND (0.0024 J)	0.0026
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0046 J)	ND (0.0038 J)	0.0093	0.0062	ND	ND
	Mercury	0.002	ND	ND	ND (0.00012 J)	ND	ND	ND	ND (0.00015 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.0010 J)	ND	ND
	Radium	5	1.74354	0.887	1.66	1.40	3.54	3.31	1.96	0.675
	Selenium	0.05	ND	ND	ND	ND	ND	ND (0.00045 J)	ND	ND
Thallium	0.002	ND	ND	ND (0.00017 J)	ND (0.00016 J)	ND	ND (0.00016 J)	ND (0.00017 J)	ND (0.00018 J)	

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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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-30	GWC-30	GWC-30	GWC-30	GWC-30	GWC-30	GWC-30	GWC-30	
		03/23/2016	05/20/2016	07/21/2016	09/20/2016	11/14/2016	01/24/2017	03/17/2017	05/01/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	3.03	3.37	2.9	3.2	2.8	3.1	2.9	3.0
	Chloride	(250)	1.3598	1.4	1.4	1.3	1.3	1.3	1.3	1.3
	Fluoride	4	ND (0.0999 J)	ND (0.104 J)	ND (0.11 J)	ND (0.092 J)	ND	ND (0.094 J)	ND (0.084 J)	ND (0.092 J)
	Sulfate	(250)	1.3729	1.31	1.3	1.3	1.1	1.3	1.3	1.2
	TDS	(500)	51	58	42	52	38	36	48	10
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND (0.0012 J)	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	ND (0.00731 J)	ND (0.00703 J)	0.0067	0.0070	0.0070	0.0075	0.0071	0.0057
	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 (0.0011 J)	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	ND	ND (0.0038 J)	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.000086 J)	ND	ND	ND	ND (0.00017 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.205 U	0.171 U	0.144 U	0.542	0.400	0.171 U	0.447 U
	Selenium	0.05	ND	ND	ND (0.00030 J)	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID											
		GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	GWC-31	
		03/30/2016	05/25/2016	07/27/2016	01/25/2017	02/08/2107	03/23/2017	05/02/2017	07/19/2017	08/04/2017	09/06/2017	10/05/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	NS
	Calcium	N/R	11.3	12.9	12	8.3	NS	10	9.8	10	13	NS	NS
	Chloride	(250)	1.9069	1.89	NS	1.9	NS	NS	NS	1.6	NS	ND	NS
	Fluoride	4	1.5245	1.65	NS	1.4	NS	NS	NS	1.6	NS	ND	NS
	Sulfate	(250)	15.0114	19.1	NS	13	NS	NS	NS	15	NS	ND (76 J)	NS
	TDS	(500)	128	118	NS	120	NS	NS	NS	100	NS	90	NS
APPENDIX IV	Antimony	0.006	ND	ND (0.00129 J)	0.0027	ND	NS	ND	ND	ND	ND	NS	NS
	Arsenic	0.01	ND	ND	ND (0.00055 J)	ND	NS	ND	ND	ND (0.00055 J)	ND	NS	NS
	Barium	2	ND (0.00491 J)	ND (0.00502 J)	0.0033	0.0051	NS	ND (0.0024 J)	0.0026	0.0040	0.0033	NS	NS
	Beryllium	0.004	ND	ND	ND (0.00076 J)	ND (0.00064 J)	NS	ND (0.00067 J)	ND (0.00077 J)	ND (0.00083 J)	ND (0.0011 J)	NS	NS
	Cadmium	0.005	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	NS
	Chromium	0.1	ND (0.00334 J)	ND (0.00321 J)	0.0043	0.0027	NS	ND (0.0022 J)	0.0027	ND (0.0019 J)	ND (0.0021 J)	NS	NS
	Cobalt	N/R	ND	ND	ND (0.0015 J)	ND	NS	ND	ND	ND	ND	NS	NS
	Lead	0.015	ND	ND	ND (0.00078 J)	ND (0.00042 J)	NS	ND	ND (0.00039 J)	ND (0.00051 J)	ND (0.00037 J)	NS	NS
	Lithium	N/R	ND (0.0202 J)	ND (0.0229 J)	0.022	0.020	NS	0.023	0.019	0.026	0.027	NS	NS
	Mercury	0.002	ND	ND	ND (0.00010 J)	ND	NS	ND	ND	ND	ND	NS	NS
	Molybdenum	N/R	ND	ND	ND (0.0041 J)	ND	NS	ND	ND	ND (0.00090 J)	ND	NS	NS
	Radium	5	NS	NS	NS	0.230 U	0.411 U	NS	NS	NS	NS	0.527	1.10
Selenium	0.05	ND	ND	ND (0.00095 J)	ND (0.00035 J)	NS	ND	ND	ND (0.00068 J)	ND (0.00042 J)	NS	NS	
Thallium	0.002	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	NS	

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**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-32	GWC-32	GWC-32	GWC-32	GWC-32	GWC-32	GWC-32	GWC-32	
		03/23/2016	05/24/2016	07/22/2016	09/16/2016	11/15/2016	01/26/2017	03/24/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	5.18	6.58	7.1	8.7	6.9	13	12	15
	Chloride	(250)	1.0533	1.1	1.1	1.1	1.1	1.1	1.1	ND (0.99 J)
	Fluoride	4	2.1209	2.71	3.5	3.5	3.2	3.9	3.2	3.5
	Sulfate	(250)	12.8473	13.5	12	12	13	9.2	9.2	9.0
	TDS	(500)	75	83	76	84	94	68	110	76
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	ND	ND	ND (0.0014 J)	ND (0.0018 J)	ND (0.0014 J)	0.0030	ND (0.0021 J)	0.0025
	Beryllium	0.004	ND (0.000735 J)	ND (0.00134 J)	ND (0.0012 J)	ND (0.0015 J)	ND (0.0015 J)	ND (0.0010 J)	ND (0.0016 J)	ND (0.0012 J)
	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 (0.00058 J)	ND (0.00088 J)	ND	ND (0.0013 J)	ND (0.0012 J)	ND (0.00095 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	0.010	0.013	0.012	0.018	0.018	0.019
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.000073 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND (0.00097 J)	ND	ND
	Radium	5	0.00 U	0.230 U	0.311 U	NS	0.597	1.20	0.578	1.45
	Selenium	0.05	ND	ND	ND (0.00025 J)	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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID												
		GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	GWC-33	
		03/23/2016	05/24/2016	07/22/2016	09/16/2016	11/17/2016	01/25/2017	03/23/2017	05/01/2017	07/19/2017	08/04/2017	08/24/2017	09/06/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND (0.023 J)	ND	ND	ND	NS	ND	NS	NS
	Calcium	N/R	13.8	9.38	9.0	11	55	ND	15	10	NS	11	NS	NS
	Chloride	(250)	2.2604	NS	NS	NS	2.5	2.1	2.0	2.1	2.1	1.9	1.9	ND
	Fluoride	4	2.8158	NS	NS	NS	4.1	5.6	3.1	4.2	3.4	4.0	4.2	ND
	Sulfate	(250)	19.6956	NS	NS	NS	22	50	28	25	22	25	19	ND
	TDS	(500)	80	NS	NS	NS	140	160	120	72	120	90	82	58
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS
	Barium	2	ND (0.00902 J)	ND (0.00573 J)	0.010	0.0061	0.014	ND	0.0096	0.0057	NS	0.0062	NS	NS
	Beryllium	0.004	ND (0.000892 J)	ND (0.00065 J)	ND (0.0011 J)	ND (0.0010 J)	ND (0.00046 J)	ND	ND (0.00077 J)	ND (0.00062 J)	NS	ND (0.00051 J)	NS	NS
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS
	Chromium	0.1	ND	ND	ND	ND	0.0034	ND	0.0032	ND	NS	ND	NS	NS
	Cobalt	N/R	ND	0.0136	0.010	0.011	0.0032	ND	0.0037	0.0085	NS	ND (0.0023 J)	NS	NS
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS
	Lithium	N/R	ND	ND	ND	ND (0.0038 J)	ND	ND	ND	ND	NS	ND	NS	NS
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.00012 J)	ND	ND	NS	ND	NS	NS
	Molybdenum	N/R	ND	ND	ND	ND	ND (0.0016 J)	ND	ND	ND	NS	ND (0.0018 J)	NS	NS
	Radium	5	0.00 U	NS	NS	NS	1.11	0.940	0.504	0.282 U	2.00	NS	1.07	0.820
	Selenium	0.05	ND	ND	ND (0.00074 J)	ND	ND	ND	ND	ND (0.00084 J)	NS	ND (0.00084 J)	NS	NS
Thallium	0.002	ND	ND (0.000242 J)	ND (0.00022 J)	ND (0.00021 J)	ND (0.00017 J)	ND	ND (0.00017 J)	ND (0.00018 J)	NS	ND (0.00016 J)	NS	NS	

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. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-34	GWC-34	GWC-34	GWC-34	GWC-34	GWC-34	GWC-34	GWC-34	
		03/24/2016	05/23/2016	07/21/2016	09/15/2016	11/15/2016	01/25/2017	03/22/2017	05/01/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	3.27	2.82	2.6	2.9	2.5	2.7	2.7	3.1
	Chloride	(250)	1.2259	1.19	1.3	1.2	1.2	1.2	1.1	1.1
	Fluoride	4	ND (0.1653 J)	ND (0.155 J)	ND (0.19 J)	ND (0.16 J)	ND (0.14 J)	ND (0.16 J)	ND (0.14 J)	ND (0.16 J)
	Sulfate	(250)	1.8782	1.44	1.6	1.6	1.3	1.5	1.5	1.4
	TDS	(500)	55	61	32	62	56	ND	58	22
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	0.0132	0.0119	0.011	0.012	0.011	0.011	0.010	0.012
	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 (0.00043 J)	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	0.0052	0.0055	ND (0.0043 J)	ND (0.0046 J)	0.0051
	Mercury	0.002	ND	ND	ND (0.000084 J)	ND	ND	ND (0.00012 J)	ND (0.000079 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.939	-0.0583 U	0.115 U	0.246 U	0.380	0.0709 U	0.0158 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.
10. NS indicates not sampled due to insufficient water volume.

**TABLE 5. PLANT WANSLEY CCB DISPOSAL FACILITY  
ANALYTICAL DATA SUMMARY**

Substance	MCL/ (SMCL)	Well ID								
		GWC-35	GWC-35	GWC-35	GWC-35	GWC-35	GWC-35	GWC-35	GWC-35	
		03/24/2016	05/23/2016	07/21/2016	09/15/2016	11/15/2016	01/26/2017	03/22/2017	05/02/2017	
APPENDIX III	Boron	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/R	1.97	1.97	1.7	1.9	1.8	2.2	1.8	2.1
	Chloride	(250)	4.4998	4.19	4.4	4.0	4.2	4.2	3.9	4.0
	Fluoride	4	ND (0.0396 J)	ND (0.0343 J)	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	2.7482	2.76	2.8	2.4	2.3	2.7	2.4	2.5
	TDS	(500)	33	48	36	38	44	ND	34	ND (4.0 J)
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	0.0206	0.0221	0.019	0.020	0.020	0.021	0.019	0.020
	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	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND (0.000096 J)	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.00 U	0.231 U	0.148 U	0.199 U	0.220 U	0.265 U	-0.0817 U	0.123 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).
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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. NS indicates not sampled due to insufficient water volume.

**TABLE 6. PLANT WANSLEY CCB DISPOSAL FACILITY RESAMPLE RESULTS**

Analyte	Resample Strategy	Well	UPL	Detection Event Result		Resample Result	
Boron	1 of 2	GWC-9	0.05	10/03/17	0.12	12/01/17	<b>0.1</b>
Boron	1 of 2	GWC-14	0.05	10/04/17	0.95	12/01/17	<b>1.2</b>
Chloride	1 of 2	GWC-14	23.0	10/04/17	160	12/01/17	<b>150</b>
Fluoride	1 of 2	GWC-32	3.2	10/06/17	3.5	12/01/17	<b>3.4</b>
Fluoride	1 of 2	GWC-33	3.2	10/05/17	3.9	11/30/17	2.8
TDS	1 of 3	GWC-20	109.1	10/06/17	120	12/01/17	100
TDS	1 of 3	GWC-21	67.88	10/06/17	70	12/01/17	42
TDS	1 of 3	GWC-32	117.6	10/06/17	130	12/01/17	110

Notes:

All units are in milligrams/liter (mg/L).

**Confirmed exceedance of UPL during resampling**

*Exceedance not confirmed during resampling*



Appendix A  
Analytical Data Reports

April 20, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102464 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Bidy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

### CERTIFICATE OF ANALYSIS

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## SAMPLE SUMMARY

Workorder: 102464 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102464001	GWA-29	N/A	Water	3/22/2016 12:50	3/23/2016 10:25
102464002	GWA-28	N/A	Water	3/22/2016 12:25	3/23/2016 10:25
102464003	EB-01	N/A	Water	3/22/2016 15:50	3/23/2016 10:25

Report ID: 102464 - 5010283  
GPC Report Page 2 of 16

### CERTIFICATE OF ANALYSIS

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**ANALYTICAL RESULTS**

Workorder: 102464 CCR - Wansley

**Lab ID:** 102464001 **Date Received:** 3/23/2016 10:25  
**Sample ID:** GWA-29 **Date Collected:** 3/22/2016 12:50  
**Sample Description:** Background Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 17:32	MRP	
Calcium	4.65	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 17:32	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:41	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:41	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0418J	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Beryllium	0.00194J	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Molybdenum	0.00230J	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Antimony	0.00113J	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:55	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							3/30/2016 11:44	LBB	
Sulfate	8.4662	mg/L	0.3	1			3/30/2016 11:44	LBB	
Chloride	1.5096	mg/L	0.04	0.25			3/30/2016 11:44	LBB	
Fluoride	2.2163	mg/L	0.01	0.3			3/30/2016 11:44	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	92	mg/L	25	25			3/24/2016 15:35	KLW	

Report ID: 102464 - 5010283  
 GPC Report Page 3 of 16

**CERTIFICATE OF ANALYSIS**

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**ANALYTICAL RESULTS**

Workorder: 102464 CCR - Wansley

<b>Lab ID:</b>	<b>102464002</b>	<b>Date Received:</b>	<b>3/23/2016 10:25</b>
<b>Sample ID:</b>	<b>GWA-28</b>	<b>Date Collected:</b>	<b>3/22/2016 12:25</b>
<b>Sample Description</b>	<b>Background Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 17:38	MRP	
Calcium	2.86	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 17:38	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:44	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:44	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0209J	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Molybdenum	0.00818J	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 16:00	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							3/30/2016 12:22	LBB	
Sulfate	1.1423	mg/L	0.3	1			3/30/2016 12:22	LBB	
Chloride	1.3716	mg/L	0.04	0.25			3/30/2016 12:22	LBB	
Fluoride	1.4375	mg/L	0.01	0.3			3/30/2016 12:22	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	69	mg/L	25	25			3/24/2016 15:35	KLW	

Report ID: 102464 - 5010283  
 GPC Report Page 4 of 16

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**ANALYTICAL RESULTS**

Workorder: 102464 CCR - Wansley

<b>Lab ID:</b>	<b>102464003</b>	<b>Date Received:</b>	<b>3/23/2016 10:25</b>
<b>Sample ID:</b>	<b>EB-01</b>	<b>Date Collected:</b>	<b>3/22/2016 15:50</b>
<b>Sample Description</b>	<b>Equipment Blank</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 17:44	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 17:44	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:47	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:47	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 16:05	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							3/30/2016 14:17	LBB	
Sulfate	<1	mg/L	0.3	1			3/30/2016 14:17	LBB	
Chloride	<0.25	mg/L	0.04	0.25			3/30/2016 14:17	LBB	
Fluoride	<0.3	mg/L	0.01	0.3			3/30/2016 14:17	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	<25	mg/L	25	25			3/24/2016 15:35	KLW	

Report ID: 102464 - 5010283  
 GPC Report Page 5 of 16

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102464 CCR - Wansley

---

### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

QC Batch: DIGM/4226 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 102464001 102464002 102464003

METHOD BLANK: 104236

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

LABORATORY CONTROL SAMPLE: 104237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.12	102	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104238 104239 Original: 102462004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	23.8	5	29.2	29.4	107	110	75-125	2.8	20	

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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

QC Batch: DIGM/4227 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 102464001 102464002 102464003

METHOD BLANK: 104240

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 104241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Lithium	mg/L	0.2	0.229	115	80-120
Beryllium	mg/L	0.1	0.110	110	80-120
Boron	mg/L	0.1	0.116	116	80-120
Chromium	mg/L	0.1	0.110	110	80-120
Cobalt	mg/L	0.1	0.109	109	80-120
Arsenic	mg/L	0.1	0.0995	99.5	80-120
Selenium	mg/L	0.1	0.0992	99.2	80-120
Molybdenum	mg/L	0.1	0.0978	97.8	80-120
Cadmium	mg/L	0.1	0.0987	98.7	80-120
Antimony	mg/L	0.1	0.102	102	80-120
Barium	mg/L	0.1	0.102	102	80-120
Thallium	mg/L	0.1	0.104	104	80-120
Lead	mg/L	0.1	0.106	106	80-120

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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104243                      104244                      Original: 102462001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.0115	0.2	0.197	0.200	92.7	94.2	75-125	1.6	20	
Beryllium	mg/L	2.4e-005	0.1	0.0911	0.0924	91.1	92.4	75-125	1.4	20	
Boron	mg/L	0.0828	0.1	0.176	0.178	93.2	95.1	75-125	2	20	
Chromium	mg/L	0.00018	0.1	0.104	0.106	103	106	75-125	2.9	20	
Cobalt	mg/L	2.3e-005	0.1	0.102	0.104	102	104	75-125	1.9	20	
Arsenic	mg/L	0.00014	0.1	0.0999	0.102	99.8	102	75-125	2.2	20	
Selenium	mg/L	6.7e-005	0.1	0.0971	0.0986	97	98.6	75-125	1.6	20	
Molybdenum	mg/L	1.9e-005	0.1	0.101	0.103	101	103	75-125	2	20	
Cadmium	mg/L	9e-006	0.1	0.0966	0.0986	96.6	98.6	75-125	2	20	
Antimony	mg/L	0.00047	0.1	0.101	0.103	101	103	75-125	2	20	
Barium	mg/L	0.197	0.1	0.297	0.302	99.9	105	75-125	5	20	
Thallium	mg/L	8e-006	0.1	0.102	0.104	102	104	75-125	1.9	20	
Lead	mg/L	3.1e-005	0.1	0.103	0.105	103	105	75-125	1.9	20	

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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

QC Batch: GRAV/2812 Analysis Method: SM 2540C  
 QC Batch Method: SM 2540C  
 Associated Lab Samples: 102464001 102464002 102464003

METHOD BLANK: 104253

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
TDS	mg/L	<25	25

LABORATORY CONTROL SAMPLE: 104254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
TDS	mg/L	241	228	94.6	90-110

SAMPLE DUPLICATE: 104255 Original: 102464002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	69	72	4.3	20

SAMPLE DUPLICATE: 104316 Original: 102468007

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	<25	<25	12.5	20

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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

QC Batch: HGPR/1637 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A  
 Associated Lab Samples: 102464001 102464002 102464003

METHOD BLANK: 104267

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104273

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00205	102	80-120	

LABORATORY CONTROL SAMPLE: 104269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0126	103	80-120	

LABORATORY CONTROL SAMPLE: 104274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00202	101	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

QC Batch: IC/3004 Analysis Method: EPA 300  
 QC Batch Method: EPA 300  
 Associated Lab Samples: 102464001 102464002 102464003 102534001 102534002

METHOD BLANK: 104385

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Chloride	mg/L	<0.25	0.25
Sulfate	mg/L	<1	1
Fluoride	mg/L	<0.3	0.3

METHOD BLANK: 104455

Parameter	Units	Blank Result	Reporting Limit Qualifiers
Chloride	mg/L	<0.25	0.25
Sulfate	mg/L	<1	1
Fluoride	mg/L	<0.3	0.3

LABORATORY CONTROL SAMPLE: 104378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	11.3	11.552	102	90-110
Fluoride	mg/L	6.8	6.849	100	90-110

LABORATORY CONTROL SAMPLE: 104386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	0.5	0.5444	109	90-110
Sulfate	mg/L	5	5.12	102	90-110
Fluoride	mg/L	0.5	0.5232	105	90-110

LABORATORY CONTROL SAMPLE: 104456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
Chloride	mg/L	0.5	0.5433	109	90-110
Sulfate	mg/L	5	5.0934	102	90-110
Fluoride	mg/L	0.5	0.5225	105	90-110

Report ID: 102464 - 5010283  
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**QUALITY CONTROL DATA**

Workorder: 102464 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104379 104380 Original: 102464002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.3716	1	2.3502	2.3468	97.9	97.5	90-110	0.41	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104381 104382 Original: 102464002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	1.4375	1	2.403	2.3986	96.6	96.1	90-110	0.52	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104383 104384 Original: 102464002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	1.1423	10	11.2273	11.2576	101	101	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104387 104388 Original: 102468006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.9121	1	1.8929	1.8933	98.1	98.1	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104453 104454 Original: 102534002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.0594	1.098	106	110	90-110	3.7	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102464 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102464001	GWA-29	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102464002	GWA-28	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102464003	EB-01	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102464001	GWA-29	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102464002	GWA-28	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102464003	EB-01	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102464001	GWA-29	SM 2540C	GRAV/2812		
102464002	GWA-28	SM 2540C	GRAV/2812		
102464003	EB-01	SM 2540C	GRAV/2812		
102464001	GWA-29	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102464002	GWA-28	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102464003	EB-01	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102464001	GWA-29	EPA 300	IC/3004		
102464002	GWA-28	EPA 300	IC/3004		
102464003	EB-01	EPA 300	IC/3004		

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## LABORATORY CERTIFICATIONS

Workorder: 102464 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

Company: <sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address: <sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax: <sup>3</sup> 205.992.6781  
 Contact: <sup>4</sup> Joju Abraham  
 Project Location: <sup>5</sup> Plant Wansley  
 Account Number: <sup>6</sup>  
 Special Instructions: <sup>7</sup> Wansley CCR GW

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

LAB USE ONLY

Work Order No. 18102464  
 Reviewed By: [Signature]  
 Page 1 of 1

A-11 3/23/16

Sample Shipment Date: <sup>8</sup> 3/23/16  <sup>12</sup> Standard Turnaround Time  
 Sample Received Date: <sup>9</sup> \_\_\_\_\_  
 Sampled By: <sup>10</sup> Kristin Jvanko # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

Kristin Jvanko  
 Signature  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE <sup>20</sup>				ANALYSIS REQUESTED <sup>21</sup>				Sample Type Key: <sup>22</sup>
HNO3 N	HNO3 N	Ice I						G-Grab O-Other C-Composite
Metals app. III & IV EPA 6020 & EPA 7470				Radium 226 & 228 Ca Tech				Matrix Key: <sup>23</sup>
Matrix				No. of Containers				Preservative Key: <sup>24</sup>
Sample Type								H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfite P-Phosphoric Acid ST-Sodium Thiosulfate L-Ice U-Unpreserved
								LAB USE ONLY <sup>25</sup>
								Comments

LAB USE ONLY <sup>15</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>			Sample Type Key: <sup>22</sup>
		Date	Time					HNO3 N	HNO3 N	Ice I	
10246401	GW1-29	3/23/16	1250	Background well - landfill	GW	3		X	X	X	
↓	GW1-28	3/23/16	1205	Background well - landfill	GW	3		X	X	X	
↓	EB-01	3/23/16	1550	Equipment Blank	GW	3		X	X	X	

LAB USE ONLY: Sample Receipt Information <sup>28</sup>  
 Relinquished by: <sup>26</sup> [Signature] Date/Time 3/23/16 110  
 Received by: <sup>27</sup> [Signature] Date/Time \_\_\_\_\_  
 Relinquished by: [Signature] Date/Time \_\_\_\_\_  
 Received by: [Signature] Date/Time 3-23-16 @ 1025

LAB USE ONLY: Sample Receipt Information <sup>28</sup>  
 3.25 (60FL-IR-3P) with ice, seal intact, cooler in good condition, pH=2  
 FedEx # 8094 8486 8711

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102464  
 Carrier: FEDEX

# of Samples: 3  
 Tracking No: 809484868711

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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	3.2
COC is present	True	
COC is filled out in ink and is legible	True	Overwrite present on sample Id ( EB-01)
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

May 12, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102479 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 102479 - 5022154  
GPC Report Page 1 of 20

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## SAMPLE SUMMARY

Workorder: 102479 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102479001	GWA-1	N/A	Water	3/23/2016 10:45	3/24/2016 10:30
102479002	GWA-2	N/A	Water	3/23/2016 09:51	3/24/2016 10:30
102479003	GWA-4	N/A	Water	3/23/2016 09:45	3/24/2016 10:30
102479004	GWC-30	N/A	Water	3/23/2016 12:25	3/24/2016 10:30
102479005	GWC-32	N/A	Water	3/23/2016 14:35	3/24/2016 10:30
102479006	Dup-01	N/A	Water	3/23/2016 00:00	3/24/2016 10:30

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**ANALYTICAL RESULTS**

Workorder: 102479 CCR - Wansley

**Lab ID:** 102479001 **Date Received:** 3/24/2016 10:30  
**Sample ID:** GWA-1 **Date Collected:** 3/23/2016 10:45  
**Sample Description:** Background Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 21:10	MRP	
Calcium	0.893	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 21:10	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:35	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:35	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Barium	0.00968J	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:07	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 01:49	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/1/2016 01:49	LBB	
Chloride	1.8057	mg/L	0.0400	0.2500			4/1/2016 01:49	LBB	
Fluoride	0.019J	mg/L	0.0100	0.3000			4/1/2016 01:49	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	<25	mg/L		25			3/28/2016 21:30	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102479 CCR - Wansley

**Lab ID:** 102479002 **Date Received:** 3/24/2016 10:30  
**Sample ID:** GWA-2 **Date Collected:** 3/23/2016 09:51  
**Sample Description:** Background Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 21:16	MRP	
Calcium	3.09	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 21:16	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:38	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:38	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Antimony	0.000690J	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Barium	0.00773J	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:12	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 02:28	LBB	
Sulfate	1.001	mg/L	0.3000	1.00			4/1/2016 02:28	LBB	
Chloride	2.5102	mg/L	0.0400	0.2500			4/1/2016 02:28	LBB	
Fluoride	0.0276J	mg/L	0.0100	0.3000			4/1/2016 02:28	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	41	mg/L		25			3/28/2016 21:30	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102479 CCR - Wansley

**Lab ID:** 102479003 **Date Received:** 3/24/2016 10:30  
**Sample ID:** GWA-4 **Date Collected:** 3/23/2016 09:45  
**Sample Description:** Background Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 21:22	MRP	
Calcium	24.2	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 21:22	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:40	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:40	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Cobalt	0.00443J	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Barium	0.112	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:18	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 10:30	LBB	
Sulfate	9.0208	mg/L	0.3000	1.00			4/1/2016 03:06	LBB	
Chloride	9.041	mg/L	0.2000	1.25			4/1/2016 10:30	LBB	
Fluoride	0.0713J	mg/L	0.0100	0.3000			4/1/2016 03:06	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	139	mg/L		25			3/28/2016 21:30	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102479 CCR - Wansley

**Lab ID:** 102479004 **Date Received:** 3/24/2016 10:30  
**Sample ID:** GWC-30 **Date Collected:** 3/23/2016 12:25  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 21:28	MRP	
Calcium	3.03	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 21:28	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:43	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:43	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Barium	0.00731J	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:23	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 03:44	LBB	
Sulfate	1.3729	mg/L	0.3000	1.00			4/1/2016 03:44	LBB	
Chloride	1.3598	mg/L	0.0400	0.2500			4/1/2016 03:44	LBB	
Fluoride	0.0999J	mg/L	0.0100	0.3000			4/1/2016 03:44	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	51	mg/L		25			3/28/2016 21:30	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102479 CCR - Wansley

**Lab ID:** 102479005 **Date Received:** 3/24/2016 10:30  
**Sample ID:** GWC-32 **Date Collected:** 3/23/2016 14:35  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 21:34	MRP	
Calcium	5.18	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 21:34	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:56	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:56	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Beryllium	0.000735J	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 14:00	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 04:23	LBB	
Sulfate	12.8473	mg/L	0.3000	1.00			4/1/2016 04:23	LBB	
Chloride	1.0533	mg/L	0.0400	0.2500			4/1/2016 04:23	LBB	
Fluoride	2.1209	mg/L	0.0100	0.3000			4/1/2016 04:23	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	75	mg/L		25			3/28/2016 21:30	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102479 CCR - Wansley

<b>Lab ID:</b>	<b>102479006</b>	<b>Date Received:</b>	<b>3/24/2016 10:30</b>
<b>Sample ID:</b>	<b>Dup-01</b>	<b>Date Collected:</b>	<b>3/23/2016 00:00</b>
<b>Sample Description</b>	<b>Duplicate – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 21:40	MRP	
Calcium	24.6	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 21:40	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:59	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:59	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Cobalt	0.00449J	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Barium	0.116	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 14:05	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 11:08	LBB	
Sulfate	9.0694	mg/L	0.3000	1.00			4/1/2016 05:01	LBB	
Chloride	9.0585	mg/L	0.2000	1.25			4/1/2016 11:08	LBB	
Fluoride	0.0722J	mg/L	0.0100	0.3000			4/1/2016 05:01	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	149	mg/L		25			3/28/2016 21:30	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102479 CCR - Wansley

---

### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

### CERTIFICATE OF ANALYSIS

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

QC Batch:	DIGM/4228		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006		

METHOD BLANK: 104282

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.09	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104284                      104285                      Original: 102472002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	64.1	5	69.5	69.3	109	104	75-125	4.7	20	

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

QC Batch:	DIGM/4229		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006		

METHOD BLANK: 104292

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.199	99.7	80-120	
Beryllium	mg/L	0.1	0.0983	98.3	80-120	
Boron	mg/L	0.1	0.100	100	80-120	
Chromium	mg/L	0.1	0.112	112	80-120	
Cobalt	mg/L	0.1	0.112	112	80-120	
Arsenic	mg/L	0.1	0.102	102	80-120	
Selenium	mg/L	0.1	0.101	101	80-120	
Molybdenum	mg/L	0.1	0.0975	97.5	80-120	
Cadmium	mg/L	0.1	0.100	100	80-120	
Antimony	mg/L	0.1	0.103	103	80-120	
Barium	mg/L	0.1	0.104	104	80-120	
Thallium	mg/L	0.1	0.103	103	80-120	
Lead	mg/L	0.1	0.105	105	80-120	

Report ID: 102479 - 5022154  
 GPC Report Page 11 of 20

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104294                      104295                      Original: 102472004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.0192	0.2	0.210	0.209	95.2	95.1	75-125	0.11	20	
Beryllium	mg/L	7.7e-005	0.1	0.0944	0.0937	94.3	93.7	75-125	0.64	20	
Boron	mg/L	0.0574	0.1	0.151	0.154	93.9	96.9	75-125	3.1	20	
Chromium	mg/L	0.00018	0.1	0.111	0.113	111	113	75-125	1.8	20	
Cobalt	mg/L	0.0172	0.1	0.124	0.127	107	110	75-125	2.8	20	
Arsenic	mg/L	0.00693	0.1	0.110	0.114	103	107	75-125	3.8	20	
Selenium	mg/L	0.00020	0.1	0.102	0.103	102	103	75-125	0.98	20	
Molybdenum	mg/L	0.00033	0.1	0.103	0.107	103	107	75-125	3.8	20	
Cadmium	mg/L	3e-006	0.1	0.101	0.103	101	103	75-125	2	20	
Antimony	mg/L	0.00048	0.1	0.106	0.111	105	110	75-125	4.7	20	
Barium	mg/L	0.263	0.1	0.364	0.372	101	110	75-125	8.5	20	
Thallium	mg/L	0	0.1	0.106	0.108	106	108	75-125	1.9	20	
Lead	mg/L	7.1e-005	0.1	0.107	0.109	106	109	75-125	2.8	20	

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

QC Batch: GRAV/2815 Analysis Method: SM 2540C  
 QC Batch Method: SM 2540C  
 Associated Lab Samples: 102472001 102472002 102472003 102472004 102472005 102472006  
 102472007 102472008 102472009 102472010 102479001 102479002  
 102479003 102479004 102479005 102479006

METHOD BLANK: 104312

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 104370

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY TDS	mg/L	241	228	94.6	90-110	

SAMPLE DUPLICATE: 104314

Original: 102472002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY TDS	mg/L	310	305	1.6	20	

SAMPLE DUPLICATE: 104315

Original: 102479001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY TDS	mg/L	<25	<25	6.1	20	

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

QC Batch:	HGPR/1638		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102472005	102472006	102472007	102472008	102472009	102472010
	102479001	102479002	102479003	102479004	102479005	102479006
	102482001	102482002	102482003	102482004	102482005	102482006
	102482007					

METHOD BLANK: 104322

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104328

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

LABORATORY CONTROL SAMPLE: 104324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0125	102	80-120	

LABORATORY CONTROL SAMPLE: 104329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00200	100	80-120	

Report ID: 102479 - 5022154  
 GPC Report Page 14 of 20

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

QC Batch: IC/3005 Analysis Method: EPA 300  
 QC Batch Method: EPA 300

Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006	102482001	102482002
	102482003	102482004	102482005	102482006	102482007	102484001
Associated Lab Samples:	102484003	102484004	102484005	102484006	102484007	102524001
	102524002	102524003	102524004	102524005	102526001	102526002
	102526003	102526004	102526005	102558001	102558002	102558003
	102558004					

METHOD BLANK: 104480

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104494

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.26	99.6	90-110	
Fluoride	mg/L	6.8	6.682	97.8	90-110	

LABORATORY CONTROL SAMPLE: 104481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5359	107	90-110	
Sulfate	mg/L	5	5.0318	101	90-110	
Fluoride	mg/L	0.5	0.5148	103	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102479 CCR - Wansley

LABORATORY CONTROL SAMPLE: 104495

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4931	98.6	90-110	
Sulfate	mg/L	5	4.9512	99	90-110	
Fluoride	mg/L	0.5	0.51	102	90-110	

LABORATORY CONTROL SAMPLE: 104816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7	7.124	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104478                      104479                      Original: 102472010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	22.9683	10	32.05	31.983	90.8	90.1	90-110	0.77	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104484                      104485                      Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.0396	1	1.0867	1.0862	105	105	90-110	0	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102479 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102479001	GWA-1	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102479002	GWA-2	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102479003	GWA-4	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102479004	GWC-30	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102479005	GWC-32	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102479006	Dup-01	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102479001	GWA-1	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102479002	GWA-2	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102479003	GWA-4	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102479004	GWC-30	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102479005	GWC-32	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102479006	Dup-01	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102479001	GWA-1	SM 2540C	GRAV/2815		
102479002	GWA-2	SM 2540C	GRAV/2815		
102479003	GWA-4	SM 2540C	GRAV/2815		
102479004	GWC-30	SM 2540C	GRAV/2815		
102479005	GWC-32	SM 2540C	GRAV/2815		
102479006	Dup-01	SM 2540C	GRAV/2815		
102479001	GWA-1	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102479002	GWA-2	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102479003	GWA-4	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102479004	GWC-30	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102479005	GWC-32	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102479006	Dup-01	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102479001	GWA-1	EPA 300	IC/3005		
102479002	GWA-2	EPA 300	IC/3005		
102479003	GWA-4	EPA 300	IC/3005		
102479004	GWC-30	EPA 300	IC/3005		
102479005	GWC-32	EPA 300	IC/3005		

Report ID: 102479 - 5022154  
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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102479 CCR - Wansley

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102479006	Dup-01	EPA 300	IC/3005		

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## LABORATORY CERTIFICATIONS

Workorder: 102479 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**LAB USE ONLY**

Work Order No. 102479  
 Reviewed By: [Signature]  
 11 Page 1 of 1

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

Sample Shipment Date:<sup>8</sup> 3/23/16  
 Sample Received Date:<sup>9</sup> 3/23/16  
 Sampled By:<sup>10</sup> Kristen Jurinko  
 # of Business Days (Rush)    
 (Must be cleared through Env. Lab. Prior to shipment)

Standard Turnaround Time  X

Southern Company Services  
 John Pugh  
 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 205.992.6781  
 Joju Abraham  
 Plant Wansley  
 Wansley CCR GW

Signature: [Signature]  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>			Sample Type Key: 22
		Date	Time					HNO3 N	HNO3 N	Ice I	
102479001	GWA-1	3/23/16	1045	Background well - landfill	G	GW	3	X	X		
	GWA-2	3/23/16	0951	Background well - landfill	G	GW	3	X	X		
	GWA-4	3/23/16	0945	Background well - landfill	G	GW	3	X	X		
	DUP-01	3/23/16		Duplicate - landfill	G	GW	3	X	X		

LAB USE ONLY: Sample Receipt Information <sup>28</sup>	
Relinquished by: <sup>26</sup> <u>[Signature]</u>	Date/Time <u>3/23/16 17:00</u>
Received by: <sup>27</sup> <u>[Signature]</u>	Date/Time <u>3/23/16</u>
Relinquished by:	Date/Time
Received by:	Date/Time <u>3/24/16 08:10:30</u>

LAB USE ONLY: Sample Receipt Information<sup>28</sup>  
 4-2016-12-31, with ice, cooler in good condition, seal PHL2  
 HART, AND 3/24/16, Feb # 8033 & 8039 @ 7:38



# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**Georgia Power Environmental Laboratory**  
**NELAP Certification #E57554**  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**LAB USE ONLY**

Work Order No. 102479  
 Reviewed By: [Signature]  
 Date: 3-24-16

11 Page 1 of 1

Sample Shipment Date:<sup>8</sup> 3/23/16  
 Sample Received Date:<sup>9</sup> 3/23/16  
 Sampled By:<sup>10</sup> Kristen Jurinto

<sup>12</sup> Standard Turnaround Time  
 # of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Company:<sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address:<sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup>  
 Special Instructions:<sup>7</sup> Wansley CCR GW

Signature  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE <sup>20</sup>			ANALYSIS REQUESTED <sup>21</sup>		Sample Type Key: <b>22</b>
HNO3 N	HNO3 N	Ice I			G-Grab O-Other C-Composite
Matrix					Matrix Key: <b>23</b>
No. of Containers					O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water
Sample Type					Preservative Key: <b>24</b>
Matrix					H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfite P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved
Sample Description <sup>16</sup>					<b>LAB USE ONLY 25</b>
Collection <sup>15</sup>					Comments
Date		Time			

LAB USE ONLY <sup>13</sup>	LAB ID	Sample Number <sup>14</sup>	Date	Time	Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	EPA 6020 & EPA 7470	Metals app. III & IV	Cl, F, SO4 EPA 300	TDS SM2540C	Radium 226 & 228	LAB USE ONLY 25	
	102479004	GW-C-30	3/23/16	12:25	monitoring well - landfill	GW	3	3	X	X	X	X	X		
	↓	GW-C-32	3/23/16	14:35	monitoring well - landfill	GW	↓	↓	↓	↓	↓	↓	↓		
	↓	GW-C-27	3/23/16		monitoring well - landfill	GW	↓	↓	↓	↓	↓	↓	↓		
	↓	DUP-01	3/23/16		Duplicated - landfill	GW	3	3	X	X	X	X	X		

**LAB USE ONLY: Sample Receipt Information <sup>28</sup>**

Relinquished by:<sup>26</sup> [Signature] Date/Time 3/23/16 17:00  
 Received by:<sup>27</sup> [Signature] Date/Time 3/23/16 17:38  
 Relinquished by:  
 Received by:

42C (GPEL-1R-3P), Wansley, code# in good condition, Seal, PAK  
 Hand. # 3/23/16, Field # 8133-039-0738

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102479  
 Carrier: FEDEX

# of Samples: 6  
 Tracking No: 803320396738

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:**

No no-conformance notice.

May 12, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102482 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

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## SAMPLE SUMMARY

Workorder: 102482 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102482001	GWC-27	N/A	Water	3/23/2016 15:20	3/24/2016 15:12
102482002	GWC-33	N/A	Water	3/23/2016 15:00	3/24/2016 15:12
102482003	GWC-34	N/A	Water	3/24/2016 10:00	3/24/2016 15:12
102482004	GWC-35	N/A	Water	3/24/2016 10:15	3/24/2016 15:12
102482005	GWC-26	N/A	Water	3/24/2016 12:30	3/24/2016 15:12
102482006	FB-01	N/A	Water	3/24/2016 11:40	3/24/2016 15:12
102482007	DUP-02	N/A	Water	3/24/2016 00:00	3/24/2016 15:12

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

**Lab ID:** 102482001 **Date Received:** 3/24/2016 15:12  
**Sample ID:** GWC-27 **Date Collected:** 3/23/2016 15:20  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 16:16	MRP	
Calcium	1.73	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 16:16	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:02	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:02	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Beryllium	0.00229J	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Cobalt	0.00275J	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Barium	0.0107	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:21	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 05:40	LBB	
Sulfate	1.3897	mg/L	0.3000	1.00			4/1/2016 05:40	LBB	
Chloride	1.0825	mg/L	0.0400	0.2500			4/1/2016 05:40	LBB	
Fluoride	0.4759	mg/L	0.0100	0.3000			4/1/2016 05:40	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	46	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

<b>Lab ID:</b>	<b>102482002</b>	<b>Date Received:</b>	<b>3/24/2016 15:12</b>
<b>Sample ID:</b>	<b>GWC-33</b>	<b>Date Collected:</b>	<b>3/23/2016 15:00</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 16:22	MRP	
Calcium	13.8	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 16:22	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:04	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:04	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Beryllium	0.000892J	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Barium	0.00902J	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:26	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 06:18	LBB	
Sulfate	19.6956	mg/L	0.3000	1.00			4/1/2016 06:18	LBB	
Chloride	2.2604	mg/L	0.0400	0.2500			4/1/2016 06:18	LBB	
Fluoride	2.8158	mg/L	0.0100	0.3000			4/1/2016 06:18	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	80	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

**Lab ID:** 102482003 **Date Received:** 3/24/2016 15:12  
**Sample ID:** GWC-34 **Date Collected:** 3/24/2016 10:00  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 16:28	MRP	
Calcium	3.27	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 16:28	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:07	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:07	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Barium	0.0132	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:31	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 06:56	LBB	
Sulfate	1.8782	mg/L	0.3000	1.00			4/1/2016 06:56	LBB	
Chloride	1.2259	mg/L	0.0400	0.2500			4/1/2016 06:56	LBB	
Fluoride	0.1653J	mg/L	0.0100	0.3000			4/1/2016 06:56	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	55	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

**Lab ID:** 102482004 **Date Received:** 3/24/2016 15:12  
**Sample ID:** GWC-35 **Date Collected:** 3/24/2016 10:15  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 16:34	MRP	
Calcium	1.97	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 16:34	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:15	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:15	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Barium	0.0206	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 14:36	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 11:47	LBB	
Sulfate	2.7482	mg/L	0.3000	1.00			4/1/2016 07:35	LBB	
Chloride	4.4998	mg/L	0.0800	0.5000			4/1/2016 11:47	LBB	
Fluoride	0.0396J	mg/L	0.0100	0.3000			4/1/2016 07:35	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	33	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

**Lab ID:** 102482005 **Date Received:** 3/24/2016 15:12  
**Sample ID:** GWC-26 **Date Collected:** 3/24/2016 12:30  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 16:52	MRP	
Calcium	1.72	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 16:52	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:21	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:21	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Antimony	0.000653J	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Barium	0.0362	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 15:19	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 16:16	LBB	
Sulfate	0.4337J	mg/L	0.3000	1.00			4/1/2016 16:16	LBB	
Chloride	2.8217	mg/L	0.0400	0.2500			4/1/2016 16:16	LBB	
Fluoride	0.0318J	mg/L	0.0100	0.3000			4/1/2016 16:16	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	48	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

<b>Lab ID:</b>	<b>102482006</b>	<b>Date Received:</b>	<b>3/24/2016 15:12</b>
<b>Sample ID:</b>	<b>FB-01</b>	<b>Date Collected:</b>	<b>3/24/2016 11:40</b>
<b>Sample Description</b>	<b>Field Blank - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 16:58	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 16:58	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:23	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:23	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 15:24	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 16:54	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/1/2016 16:54	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/1/2016 16:54	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/1/2016 16:54	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102482 CCR - Wansley

<b>Lab ID:</b>	<b>102482007</b>	<b>Date Received:</b>	<b>3/24/2016 15:12</b>
<b>Sample ID:</b>	<b>DUP-02</b>	<b>Date Collected:</b>	<b>3/24/2016 00:00</b>
<b>Sample Description</b>	<b>Duplicates – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 17:28	MRP	
Calcium	2.00	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 17:28	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 14:26	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 14:26	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Barium	0.0212	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 15:29	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/1/2016 17:33	LBB	
Sulfate	2.7564	mg/L	0.3000	1.00			4/1/2016 17:33	LBB	
Chloride	4.3408	mg/L	0.0800	0.5000			4/5/2016 13:23	LBB	
Fluoride	0.04J	mg/L	0.0100	0.3000			4/1/2016 17:33	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	41	mg/L		25			3/29/2016 22:01	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102482 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

QC Batch:	HGPR/1638		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102472005	102472006	102472007	102472008	102472009	102472010
	102479001	102479002	102479003	102479004	102479005	102479006
	102482001	102482002	102482003	102482004	102482005	102482006
	102482007					

METHOD BLANK: 104328

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0125	102	80-120	

LABORATORY CONTROL SAMPLE: 104329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00200	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104325                      104326                      Original: 102472009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00200	0.00201	100	100	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104330                      104331                      Original: 102482003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00203	0.00201	102	100	80-120	2	20	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

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SAMPLE DUPLICATE: 104327 Original: 102472010

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	0	20

SAMPLE DUPLICATE: 104332 Original: 102482004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	0	20

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

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QC Batch:	GRAV/2817	Analysis Method:		SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	102482001	102482002	102482003	102482004	102482005	102482006
	102482007	102484001	102484002	102484003	102484004	102484005
	102484006	102484007	102524001	102524002	102524003	102524004
	102524005					

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METHOD BLANK: 104364

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>WET CHEMISTRY</b>				
TDS	mg/L	<25	25	

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LABORATORY CONTROL SAMPLE: 104365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	241	234	97.1	90-110	

---

SAMPLE DUPLICATE: 104366 Original: 102482001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	46	45	2.2	20	

---

SAMPLE DUPLICATE: 104367 Original: 102484006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	<25	<25	22.2	20	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

QC Batch:	DIGM/4234		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102482001	102482002	102482003	102482004	102482005	102482006
	102482007	102484001	102484002	102484003	102484004	102484005
	102484006	102484007	102524001	102524002	102524003	102524004
	102524005					

METHOD BLANK: 104409

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	4.99	99.8	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104411                      104412                      Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	1.97	5	6.85	6.88	97.5	98.3	75-125	0.82	20	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

QC Batch:	DIGM/4235		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102482001	102482002	102482003	102482004	102482005	102482006
	102482007	102524001	102524002	102524003	102524004	102524005

METHOD BLANK: 104413

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.198	99.1	80-120	
Beryllium	mg/L	0.1	0.0958	95.8	80-120	
Boron	mg/L	0.1	0.0956J	95.6	80-120	
Chromium	mg/L	0.1	0.108	108	80-120	
Cobalt	mg/L	0.1	0.108	108	80-120	
Arsenic	mg/L	0.1	0.0971	97.1	80-120	
Selenium	mg/L	0.1	0.0954	95.4	80-120	
Molybdenum	mg/L	0.1	0.0925	92.5	80-120	
Cadmium	mg/L	0.1	0.0968	96.8	80-120	
Antimony	mg/L	0.1	0.100	100	80-120	
Barium	mg/L	0.1	0.0984	98.4	80-120	
Thallium	mg/L	0.1	0.0988	98.8	80-120	
Lead	mg/L	0.1	0.101	101	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104415                      104416                      Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.00113	0.2	0.198	0.198	98.7	98.3	75-125	0.41	20	
Beryllium	mg/L	3.2e-005	0.1	0.0979	0.0971	97.9	97.1	75-125	0.82	20	
Boron	mg/L	0.00378	0.1	0.101	0.101	97.1	96.8	75-125	0.31	20	
Chromium	mg/L	0.00019	0.1	0.113	0.112	113	112	75-125	0.89	20	
Cobalt	mg/L	0.00040	0.1	0.113	0.111	113	111	75-125	1.8	20	
Arsenic	mg/L	9e-006	0.1	0.103	0.102	103	102	75-125	0.98	20	
Selenium	mg/L	0.00010	0.1	0.0989	0.0993	98.8	99.2	75-125	0.4	20	
Molybdenum	mg/L	1.9e-005	0.1	0.0987	0.0979	98.6	97.9	75-125	0.71	20	
Cadmium	mg/L	1.3e-005	0.1	0.101	0.0999	101	99.9	75-125	1.1	20	
Antimony	mg/L	0.00017	0.1	0.107	0.106	106	105	75-125	0.95	20	
Barium	mg/L	0.0206	0.1	0.124	0.124	104	103	75-125	0.97	20	
Thallium	mg/L	4.6e-005	0.1	0.103	0.102	103	102	75-125	0.98	20	
Lead	mg/L	2e-005	0.1	0.105	0.105	105	105	75-125	0	20	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

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QC Batch:	IC/3005	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006	102482001	102482002
	102482003	102482004	102482005	102482006	102482007	102484001
Associated Lab Samples:	102484003	102484004	102484005	102484006	102484007	102524001
	102524002	102524003	102524004	102524005	102526001	102526002
	102526003	102526004	102526005	102558001	102558002	102558003
	102558004					

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METHOD BLANK: 104480

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104494

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104506

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104814

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

LABORATORY CONTROL SAMPLE: 104473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.26	99.6	90-110	
Fluoride	mg/L	6.8	6.682	97.8	90-110	

LABORATORY CONTROL SAMPLE: 104481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5359	107	90-110	
Sulfate	mg/L	5	5.0318	101	90-110	
Fluoride	mg/L	0.5	0.5148	103	90-110	

LABORATORY CONTROL SAMPLE: 104495

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4931	98.6	90-110	
Sulfate	mg/L	5	4.9512	99	90-110	
Fluoride	mg/L	0.5	0.51	102	90-110	

LABORATORY CONTROL SAMPLE: 104507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4856	97.1	90-110	
Sulfate	mg/L	5	4.862	97.2	90-110	
Fluoride	mg/L	0.5	0.5038	101	90-110	

LABORATORY CONTROL SAMPLE: 104815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5001	100	90-110	

LABORATORY CONTROL SAMPLE: 104816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7	7.124	103	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102482 CCR - Wansley

LABORATORY CONTROL SAMPLE: 104817

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.321	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104478 Original: 102472010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	22.9683	10	32.05		90.8	0	90-110	0	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104484 104485 Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.0396	1	1.0867	1.0862	105	105	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104486 104487 Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	2.7482	10	12.5886	12.6463	98.4	99	90-110	0.61	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104498 104499 Original: 102484007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0042	1	1.0616	1.0298	106	103	90-110	2.9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104812 104813 Original: 102479005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.0533	1	2.0756	2.0133	102	96	90-110	6.1	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102482 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102482001	GWC-27	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482002	GWC-33	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482003	GWC-34	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482004	GWC-35	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482005	GWC-26	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482006	FB-01	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482007	DUP-02	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102482001	GWC-27	SM 2540C	GRAV/2817		
102482002	GWC-33	SM 2540C	GRAV/2817		
102482003	GWC-34	SM 2540C	GRAV/2817		
102482004	GWC-35	SM 2540C	GRAV/2817		
102482005	GWC-26	SM 2540C	GRAV/2817		
102482006	FB-01	SM 2540C	GRAV/2817		
102482007	DUP-02	SM 2540C	GRAV/2817		
102482001	GWC-27	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482002	GWC-33	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482003	GWC-34	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482004	GWC-35	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482005	GWC-26	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482006	FB-01	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482007	DUP-02	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102482001	GWC-27	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482002	GWC-33	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482003	GWC-34	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482004	GWC-35	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482005	GWC-26	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482006	FB-01	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482007	DUP-02	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102482001	GWC-27	EPA 300	IC/3005		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102482 CCR - Wansley

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102482002	GWC-33	EPA 300	IC/3005		
102482003	GWC-34	EPA 300	IC/3005		
102482004	GWC-35	EPA 300	IC/3005		
102482005	GWC-26	EPA 300	IC/3005		
102482006	FB-01	EPA 300	IC/3005		
102482007	DUP-02	EPA 300	IC/3005		

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## LABORATORY CERTIFICATIONS

Workorder: 102482 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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 Atlanta, Georgia 30339  
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 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 102482  
 Reviewed By: [Signature]  
 11 Page 1 of 1

Sample Shipment Date: 3/24/16 (Delivered by Goldog)  12 Standard Turnaround Time  
 Sample Received Date: 3-28-16

Company: Southern Company Services  
 Report To: John Pugh  
 Address: 42 Inverness Center Parkway  
Birmingham, AL 35242  
 Phone/Fax: 205.992.6781  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number:   
 Special Instructions: Wansley CCR GW

Sampled By: Kristen Jurinko # of Business Days (Rush)   
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	PRESERVATIVE <sup>20</sup>			ANALYSIS REQUESTED <sup>21</sup>	Sample Type Key: <sup>22</sup>		
		Date	Time					HNO3 N	HNO3 N	Ice I		G-Grab	O-Other	C-Composite
102482001	GW-27	3/23/16	1500	Monitoring well - landfill	G	GW	3				EPA 6020 & EPA 7470 Metals app. III & IV			
2	GW-33	3/23/16	1500	↓	G						CI, F, SO4 EPA 300 TDS SM2540C			
3	GW-34	3/24/16	1000		G							Radium 226 & 228 Ga Tech		
4	GW-35	3/24/16	1015	G										
5	GW-26	3/24/16	1030	G										
6	FB-01	3/24/16	1140	Field Blank - landfill	G	W*								
7	DUP-02	3/24/16	—	Duplicates - landfill	G	GW	3							

Signature: [Signature]  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	PRESERVATIVE <sup>20</sup>			ANALYSIS REQUESTED <sup>21</sup>	Sample Type Key: <sup>22</sup>			LAB USE ONLY <sup>25</sup> Comments
		Date	Time					HNO3 N	HNO3 N	Ice I		G-Grab	O-Other	C-Composite	

Relinquished by: [Signature] Date/Time: 3/24/16 1510  
 Received by: [Signature] Date/Time: 3-24-16 @ 1512  
 Relinquished by: [Signature] Date/Time: 3-24-16 @ 1512  
 Received by: [Signature] Date/Time: 3-24-16 @ 1512

LAB USE ONLY: Sample Receipt Information <sup>28</sup>  
3/24/16 1516  
5.0L (6 PBL - 10-3P), with ice, cooling in good condition, seal, PH2  
Hand

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102482  
 Carrier: HAND

# of Samples: 7  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:**

No non-conformance noticed.

May 12, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102524 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

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## SAMPLE SUMMARY

Workorder: 102524 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102524001	GWC-5	N/A	Water	3/28/2016 12:45	3/29/2016 10:00
102524002	GWC-6	N/A	Water	3/28/2016 14:40	3/29/2016 10:00
102524003	GWC-25	N/A	Water	3/28/2016 14:05	3/29/2016 10:00
102524004	FB-02	N/A	Water	3/28/2016 16:10	3/29/2016 10:00
102524005	EB-02	N/A	Water	3/28/2016 15:50	3/29/2016 10:00

Report ID: 102524 - 5022139  
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**ANALYTICAL RESULTS**

Workorder: 102524 CCR - Wansley

**Lab ID:** 102524001 **Date Received:** 3/29/2016 10:00  
**Sample ID:** GWC-5 **Date Collected:** 3/28/2016 12:45  
**Sample Description:** Monitoring Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 18:16	MRP	
Calcium	23.9	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 18:16	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:48	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:48	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Cobalt	0.0101	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Molybdenum	0.00215J	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Barium	0.0207	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:32	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/2/2016 02:30	LBB	
Sulfate	19.9405	mg/L	0.3000	1.00			4/2/2016 02:30	LBB	
Chloride	9.818	mg/L	0.2000	1.25			4/5/2016 15:18	LBB	
Fluoride	0.1116J	mg/L	0.0100	0.3000			4/2/2016 02:30	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	172	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102524 CCR - Wansley

**Lab ID:** 102524002 **Date Received:** 3/29/2016 10:00  
**Sample ID:** GWC-6 **Date Collected:** 3/28/2016 14:40  
**Sample Description:** Monitoring Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 18:22	MRP	
Calcium	10.8	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 18:22	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:50	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:50	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Cobalt	0.0104	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Barium	0.0506	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:37	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/5/2016 15:56	LBB	
Sulfate	11.0351	mg/L	0.3000	1.00			4/2/2016 03:09	LBB	
Chloride	5.312	mg/L	0.0800	0.5000			4/5/2016 15:56	LBB	
Fluoride	0.0752J	mg/L	0.0100	0.3000			4/2/2016 03:09	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	92	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102524 CCR - Wansley

**Lab ID:** 102524003 **Date Received:** 3/29/2016 10:00  
**Sample ID:** GWC-25 **Date Collected:** 3/28/2016 14:05  
**Sample Description:** Monitoring Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 18:53	MRP	
Calcium	12.3	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 18:53	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:53	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:53	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Cobalt	0.0117	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Barium	0.0383	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:43	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/2/2016 03:47	LBB	
Sulfate	8.3151	mg/L	0.3000	1.00			4/2/2016 03:47	LBB	
Chloride	5.992	mg/L	0.0800	0.5000			4/5/2016 16:35	LBB	
Fluoride	0.0542J	mg/L	0.0100	0.3000			4/2/2016 03:47	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	90	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102524 CCR - Wansley

<b>Lab ID:</b>	<b>102524004</b>	<b>Date Received:</b>	<b>3/29/2016 10:00</b>
<b>Sample ID:</b>	<b>FB-02</b>	<b>Date Collected:</b>	<b>3/28/2016 16:10</b>
<b>Sample Description</b>	<b>Field Blank - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 18:59	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 18:59	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 14:06	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 14:06	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:48	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/2/2016 04:25	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/2/2016 04:25	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/2/2016 04:25	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/2/2016 04:25	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102524 CCR - Wansley

**Lab ID:** 102524005 **Date Received:** 3/29/2016 10:00  
**Sample ID:** EB-02 **Date Collected:** 3/28/2016 15:50  
**Sample Description:** Equipment Blank - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 19:05	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 19:05	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 14:14	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 14:14	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/30/2016 10:00	KLW	4/5/2016 16:53	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/2/2016 05:04	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/2/2016 05:04	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/2/2016 05:04	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/2/2016 05:04	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

Report ID: 102524 - 5022139  
 GPC Report Page 7 of 18

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102524 CCR - Wansley

---

### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

---

QC Batch:	GRAV/2817	Analysis Method:		SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	102482001	102482002	102482003	102482004	102482005	102482006
	102482007	102484001	102484002	102484003	102484004	102484005
	102484006	102484007	102524001	102524002	102524003	102524004
	102524005					

---

METHOD BLANK: 104364

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

---

LABORATORY CONTROL SAMPLE: 104365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	234	97.1	90-110	

---

SAMPLE DUPLICATE: 104367

Original: 102484006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	<25	<25	22.2	20	

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

QC Batch:	HGPR/1639		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102484001	102484002	102484003	102484004	102484005	102484006
	102484007	102524001	102524002	102524003	102524004	102524005
	102526001	102526002	102526003	102526004	102526005	102526006
	102526007					

METHOD BLANK: 104397

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104404

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104398

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

LABORATORY CONTROL SAMPLE: 104399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0125	102	80-120	

LABORATORY CONTROL SAMPLE: 104405

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00203	102	80-120	

Report ID: 102524 - 5022139  
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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104400 104402 Original: 102484006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00201	0.00204	100	102	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104406 104407 Original: 102524004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00196	0.00191	98	96	80-120	2.1	20	

SAMPLE DUPLICATE: 104403 Original: 102484007

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

SAMPLE DUPLICATE: 104408 Original: 102524005

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

QC Batch:	DIGM/4234		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102482001	102482002	102482003	102482004	102482005	102482006
	102482007	102484001	102484002	102484003	102484004	102484005
	102484006	102484007	102524001	102524002	102524003	102524004
	102524005					

METHOD BLANK: 104409

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	4.99	99.8	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104411                      104412                      Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	1.97	5	6.85	6.88	97.5	98.3	75-125	0.82	20	

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

QC Batch:	DIGM/4235		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102482001	102482002	102482003	102482004	102482005	102482006
	102482007	102524001	102524002	102524003	102524004	102524005

METHOD BLANK: 104413

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.198	99.1	80-120	
Beryllium	mg/L	0.1	0.0958	95.8	80-120	
Boron	mg/L	0.1	0.0956J	95.6	80-120	
Chromium	mg/L	0.1	0.108	108	80-120	
Cobalt	mg/L	0.1	0.108	108	80-120	
Arsenic	mg/L	0.1	0.0971	97.1	80-120	
Selenium	mg/L	0.1	0.0954	95.4	80-120	
Molybdenum	mg/L	0.1	0.0925	92.5	80-120	
Cadmium	mg/L	0.1	0.0968	96.8	80-120	
Antimony	mg/L	0.1	0.100	100	80-120	
Barium	mg/L	0.1	0.0984	98.4	80-120	
Thallium	mg/L	0.1	0.0988	98.8	80-120	
Lead	mg/L	0.1	0.101	101	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104415                      104416                      Original: 102482004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.00113	0.2	0.198	0.198	98.7	98.3	75-125	0.41	20	
Beryllium	mg/L	3.2e-005	0.1	0.0979	0.0971	97.9	97.1	75-125	0.82	20	
Boron	mg/L	0.00378	0.1	0.101	0.101	97.1	96.8	75-125	0.31	20	
Chromium	mg/L	0.00019	0.1	0.113	0.112	113	112	75-125	0.89	20	
Cobalt	mg/L	0.00040	0.1	0.113	0.111	113	111	75-125	1.8	20	
Arsenic	mg/L	9e-006	0.1	0.103	0.102	103	102	75-125	0.98	20	
Selenium	mg/L	0.00010	0.1	0.0989	0.0993	98.8	99.2	75-125	0.4	20	
Molybdenum	mg/L	1.9e-005	0.1	0.0987	0.0979	98.6	97.9	75-125	0.71	20	
Cadmium	mg/L	1.3e-005	0.1	0.101	0.0999	101	99.9	75-125	1.1	20	
Antimony	mg/L	0.00017	0.1	0.107	0.106	106	105	75-125	0.95	20	
Barium	mg/L	0.0206	0.1	0.124	0.124	104	103	75-125	0.97	20	
Thallium	mg/L	4.6e-005	0.1	0.103	0.102	103	102	75-125	0.98	20	
Lead	mg/L	2e-005	0.1	0.105	0.105	105	105	75-125	0	20	

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

QC Batch:	IC/3005	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006	102482001	102482002
	102482003	102482004	102482005	102482006	102482007	102484001
Associated Lab Samples:	102484003	102484004	102484005	102484006	102484007	102524001
	102524002	102524003	102524004	102524005	102526001	102526002
	102526003	102526004	102526005	102558001	102558002	102558003
	102558004					

METHOD BLANK: 104506

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104814

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.26	99.6	90-110	
Fluoride	mg/L	6.8	6.682	97.8	90-110	

LABORATORY CONTROL SAMPLE: 104507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4856	97.1	90-110	
Sulfate	mg/L	5	4.862	97.2	90-110	
Fluoride	mg/L	0.5	0.5038	101	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102524 CCR - Wansley

LABORATORY CONTROL SAMPLE: 104815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5001	100	90-110	
Sulfate	mg/L	5	5.0432	101	90-110	
Fluoride	mg/L	0.5	0.5213	104	90-110	

LABORATORY CONTROL SAMPLE: 104816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7	7.124	103	90-110	

LABORATORY CONTROL SAMPLE: 104817

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.321	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104500 Original: 102484007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.0717		107	0	90-110	0	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104510 104511 Original: 102526005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.0873	1.0857	109	109	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104812 Original: 102479005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.0533	1	2.0756		102	0	90-110	0	0	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102524 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102524001	GWC-5	SM 2540C	GRAV/2817		
102524002	GWC-6	SM 2540C	GRAV/2817		
102524003	GWC-25	SM 2540C	GRAV/2817		
102524004	FB-02	SM 2540C	GRAV/2817		
102524005	EB-02	SM 2540C	GRAV/2817		
102524001	GWC-5	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102524002	GWC-6	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102524003	GWC-25	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102524004	FB-02	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102524005	EB-02	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102524001	GWC-5	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102524002	GWC-6	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102524003	GWC-25	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102524004	FB-02	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102524005	EB-02	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102524001	GWC-5	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102524002	GWC-6	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102524003	GWC-25	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102524004	FB-02	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102524005	EB-02	EPA 3005A	DIGM/4235	EPA 6020B	ICPM/1043
102524001	GWC-5	EPA 300	IC/3005		
102524002	GWC-6	EPA 300	IC/3005		
102524003	GWC-25	EPA 300	IC/3005		
102524004	FB-02	EPA 300	IC/3005		
102524005	EB-02	EPA 300	IC/3005		

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## LABORATORY CERTIFICATIONS

Workorder: 102524 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

<b>LAB USE ONLY</b>	Work Order No. <u>10252401</u>
	Reviewed By: <u>[Signature]</u>
	Page <u>1</u> of <u>1</u>

Sample Shipment Date:<sup>8</sup> 3/28/16  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_  
 Sampled By:<sup>10</sup> Kristen Jurinko  
 <sup>12</sup> Standard Turnaround Time  
 # of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Company:<sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address:<sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Jojo Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley CCR GW

Signature: [Signature]  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>	Sample Type Key: <b>22</b>				
		Date	Time					HNO3 N	Ice I	HNO3 N		G-Grab	O-Other	C-Composite		
102524001	GW-C-5	3/28/16	1245	Monitoring well - landfill	G	GW	3	X	X	X						
	GW-C-6	3/28/16	1440	Monitoring well - landfill	G	GW	1	X	X	X						
	GW-C-25	3/28/16	1405	Monitoring well - landfill	G	GW	1	X	X	X						
	FB-0a	3/28/16	1610	Field blank - landfill	G	GW	3	X	X	X						
	EB-0a	3/28/16	1550	Equipment Blank - landfill	G	GW	3	X	X	X						

**LAB USE ONLY: Sample Receipt Information<sup>28</sup>**

Relinquished by:<sup>26</sup> [Signature] Date/Time 3/28/16 1700 3-4°C (GPEL-1A-3P), with icy cooler in good condition. Seal, PH12  
 Received by:<sup>27</sup> [Signature] Date/Time 3/29/16 @ 10:00 Fed Ex # 8033 2039 6749  
 Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: Ally 3/29/16 Date/Time \_\_\_\_\_

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102524  
 Carrier: FEDEX

# of Samples: 5  
 Tracking No: 803320396749

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	Overwrite present on collection time on COC.
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Some sample labels have different collector information than what's on COC; samples were logged in based on collector information provided on COC.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

May 1, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102558 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 102558 - 5008589  
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## SAMPLE SUMMARY

Workorder: 102558 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102558001	GWC-7	N/A	Water	3/29/2016 10:15	3/30/2016 10:25
102558002	GWC-8	N/A	Water	3/29/2016 11:10	3/30/2016 10:25
102558003	GWC-11	N/A	Water	3/29/2016 12:40	3/30/2016 10:25
102558004	GWC-9	N/A	Water	3/29/2016 13:30	3/30/2016 10:25
102558005	GWC-12	N/A	Water	3/29/2016 14:10	3/30/2016 10:25
102558006	EB-03	N/A	Water	3/29/2016 16:00	3/30/2016 10:25

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

**Lab ID:** 102558001 **Date Received:** 3/30/2016 10:25  
**Sample ID:** GWC-7 **Date Collected:** 3/29/2016 10:15  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/31/2016 10:30	KLW	4/1/2016 13:32	MRP	
Calcium	70.8	mg/L	0.200	1.00	3/31/2016 10:30	KLW	4/1/2016 13:32	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					3/31/2016 06:41	WCM	3/31/2016 13:59	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 13:59	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0126J	mg/L	0.0100	0.0500	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Cobalt	0.00652J	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Barium	0.109	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 18:28	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/5/2016 17:13	LBB	
Sulfate	22.385J	mg/L	7.50	25.0			4/5/2016 17:13	LBB	
Chloride	8.5125	mg/L	1.00	6.25			4/5/2016 17:13	LBB	
Fluoride	0.2179J	mg/L	0.0100	0.3000			4/2/2016 17:13	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	
TDS	517	mg/L					4/1/2016 08:55	KLW	

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### ANALYTICAL RESULTS

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	102558002	<b>Date Received:</b>	3/30/2016 10:25
<b>Sample ID:</b>	GWC-8	<b>Date Collected:</b>	3/29/2016 11:10
<b>Sample Description</b>	Monitoring Well – Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/31/2016 10:30	KLW	3/31/2016 20:59	MRP	
Calcium	27.2	mg/L	0.100	0.500	3/31/2016 10:30	KLW	3/31/2016 20:59	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					3/31/2016 10:30	KLW	4/7/2016 15:56	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:02	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/31/2016 10:30	KLW	4/7/2016 15:56	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Cobalt	0.0208	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/7/2016 15:56	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Barium	0.0500	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 18:54	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/5/2016 17:51	LBB	
Sulfate	15.2958	mg/L	0.3000	1.00			4/2/2016 17:52	LBB	
Chloride	3.5914	mg/L	0.0800	0.5000			4/5/2016 17:51	LBB	
Fluoride	0.0698J	mg/L	0.0100	0.3000			4/2/2016 17:52	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558002</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>GWC-8</b>	<b>Date Collected:</b>	<b>3/29/2016 11:10</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	172	mg/L				4/1/2016 08:55	KLW	

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### ANALYTICAL RESULTS

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	102558003	<b>Date Received:</b>	3/30/2016 10:25
<b>Sample ID:</b>	GWC-11	<b>Date Collected:</b>	3/29/2016 12:40
<b>Sample Description</b>	Monitoring Well – Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/31/2016 10:30	KLW	3/31/2016 21:05	MRP	
Calcium	15.0	mg/L	0.100	0.500	3/31/2016 10:30	KLW	3/31/2016 21:05	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:05	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/31/2016 10:30	KLW	4/7/2016 16:02	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Cobalt	0.00664J	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/7/2016 16:02	HAM	
Arsenic	0.00165J	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Barium	0.372	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 18:59	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/5/2016 18:30	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/2/2016 18:30	LBB	
Chloride	3.4214	mg/L	0.0800	0.5000			4/5/2016 18:30	LBB	
Fluoride	0.1377J	mg/L	0.0100	0.3000			4/2/2016 18:30	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558003</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>GWC-11</b>	<b>Date Collected:</b>	<b>3/29/2016 12:40</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	163	mg/L				4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

**Lab ID:** 102558004 **Date Received:** 3/30/2016 10:25  
**Sample ID:** GWC-9 **Date Collected:** 3/29/2016 13:30  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/31/2016 10:30	KLW	3/31/2016 21:11	MRP	
Calcium	12.6	mg/L	0.100	0.500	3/31/2016 10:30	KLW	3/31/2016 21:11	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:07	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Boron	0.0635J	mg/L	0.0200	0.100	3/31/2016 10:30	KLW	4/7/2016 16:07	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Cobalt	0.0328	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/7/2016 16:07	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Barium	0.110	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 19:05	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/5/2016 19:08	LBB	
Sulfate	14.6203	mg/L	0.3000	1.00			4/2/2016 19:09	LBB	
Chloride	7.395	mg/L	0.2000	1.25			4/5/2016 19:08	LBB	
Fluoride	0.0671J	mg/L	0.0100	0.3000			4/2/2016 19:09	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558004</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>GWC-9</b>	<b>Date Collected:</b>	<b>3/29/2016 13:30</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	93	mg/L				4/1/2016 08:55	KLW	

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### ANALYTICAL RESULTS

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558005</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>GWC-12</b>	<b>Date Collected:</b>	<b>3/29/2016 14:10</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/31/2016 10:30	KLW	3/31/2016 21:41	MRP	
Calcium	32.6	mg/L	0.100	0.500	3/31/2016 10:30	KLW	3/31/2016 21:41	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:10	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/31/2016 10:30	KLW	4/7/2016 16:13	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/7/2016 16:13	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Barium	0.0179	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 19:10	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/2/2016 19:47	LBB	
Sulfate	19.1889	mg/L	0.3000	1.00			4/2/2016 19:47	LBB	
Chloride	10.931	mg/L	0.4000	2.50			4/5/2016 22:20	LBB	
Fluoride	0.1936J	mg/L	0.0100	0.3000			4/2/2016 19:47	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558005</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>GWC-12</b>	<b>Date Collected:</b>	<b>3/29/2016 14:10</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	151	mg/L				4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558006</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>EB-03</b>	<b>Date Collected:</b>	<b>3/29/2016 16:00</b>
<b>Sample Description</b>	<b>Equipment Blank - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					3/31/2016 10:30	KLW	3/31/2016 21:47	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/31/2016 10:30	KLW	3/31/2016 21:47	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:13	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/31/2016 10:30	KLW	4/7/2016 16:18	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/7/2016 16:18	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/31/2016 10:30	KLW	4/5/2016 19:15	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 03:27	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/9/2016 03:27	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/9/2016 03:27	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/9/2016 03:27	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102558 CCR - Wansley

<b>Lab ID:</b>	<b>102558006</b>	<b>Date Received:</b>	<b>3/30/2016 10:25</b>
<b>Sample ID:</b>	<b>EB-03</b>	<b>Date Collected:</b>	<b>3/29/2016 16:00</b>
<b>Sample Description</b>	<b>Equipment Blank - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	0	mg/L				4/1/2016 08:55	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102558 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

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QC Batch:	HGPR/1640	Analysis Method:		EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102538001	102538002	102558001	102558002	102558003	102558004
	102558005	102558006	102571001	102571002	102571003	102571004
	102571005	102571006	102571007	102571008		

---

METHOD BLANK: 104424

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Mercury	mg/L	<0.000500	0.000500

METHOD BLANK: 104430

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Mercury	mg/L	<0.000500	0.000500

LABORATORY CONTROL SAMPLE: 104425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Mercury	mg/L	0.002	0.00204	102	80-120

LABORATORY CONTROL SAMPLE: 104426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Mercury	mg/L	0.0122	0.0125	102	80-120

LABORATORY CONTROL SAMPLE: 104431

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Mercury	mg/L	0.002	0.00200	100	80-120

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104427                      104428                      Original: 102571001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00183	0.00199	92	100	80-120	8.3	20	

SAMPLE DUPLICATE: 104429    Original: 102571002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

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QC Batch:	GRAV/2819	Analysis Method:		SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	102526001	102526002	102526003	102526004	102526005	102526006
	102526007	102538001	102538002	102558001	102558002	102558003
	102558004	102558005	102558006	102571001	102571002	102571003
	102571004	102571005				

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METHOD BLANK: 104435

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>WET CHEMISTRY</b>				
TDS	mg/L	<25	25	

---

LABORATORY CONTROL SAMPLE: 104436

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	241	234	97.1	90-110	

---

SAMPLE DUPLICATE: 104437 Original: 102526002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	<25	25	12.8	20	

---

SAMPLE DUPLICATE: 104438 Original: 102558004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	93	100	7.3	20	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

QC Batch:	DIGM/4236		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102526001	102526002	102526003	102526004	102526005	102526006
	102526007	102538001	102538002	102558001	102558002	102558003
	102558004	102558005	102558006			

METHOD BLANK: 104439

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104440

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	4.82	96.4	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104441                      104442                      Original: 102558001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	70.8	5	75.9	75.5	102	93.8	75-125	8.4	20	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

QC Batch:	DIGM/4237		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102526001	102526002	102526003	102526004	102526005	102526006
	102526007	102538001	102538002	102558001	102558002	102558003
	102558004	102558005	102558006			

METHOD BLANK: 104443

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.211	105	80-120	
Beryllium	mg/L	0.1	0.0997	99.7	80-120	
Boron	mg/L	0.1	0.0958J	95.8	80-120	
Chromium	mg/L	0.1	0.111	111	80-120	
Cobalt	mg/L	0.1	0.110	110	80-120	
Arsenic	mg/L	0.1	0.104	104	80-120	
Selenium	mg/L	0.1	0.0986	98.6	80-120	
Molybdenum	mg/L	0.1	0.0967	96.7	80-120	
Cadmium	mg/L	0.1	0.0992	99.2	80-120	
Antimony	mg/L	0.1	0.107	107	80-120	
Barium	mg/L	0.1	0.103	103	80-120	
Thallium	mg/L	0.1	0.100	100	80-120	
Lead	mg/L	0.1	0.102	102	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104445                      104446                      Original: 102526006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.00131	0.2	0.202	0.199	101	98.7	75-125	2.3	20	
Beryllium	mg/L	0.00011	0.1	0.0989	0.0969	98.8	96.8	75-125	2	20	
Boron	mg/L	0.0031	0.1	0.0966J	0.0958J	93.5	92.7	75-125	0.86	20	
Chromium	mg/L	0.00123	0.1	0.114	0.112	113	111	75-125	1.8	20	
Cobalt	mg/L	0.00052	0.1	0.112	0.110	111	110	75-125	0.9	20	
Arsenic	mg/L	0.00046	0.1	0.105	0.103	104	103	75-125	0.97	20	
Selenium	mg/L	0.00114	0.1	0.0994	0.0989	98.3	97.8	75-125	0.51	20	
Molybdenum	mg/L	0.00021	0.1	0.102	0.0998	101	99.6	75-125	1.4	20	
Cadmium	mg/L	1.9e-005	0.1	0.102	0.101	102	101	75-125	0.99	20	
Antimony	mg/L	0.00047	0.1	0.110	0.108	110	108	75-125	1.8	20	
Barium	mg/L	0.0155	0.1	0.120	0.119	104	103	75-125	0.97	20	
Thallium	mg/L	2.3e-005	0.1	0.104	0.104	104	104	75-125	0	20	
Lead	mg/L	0.00045	0.1	0.106	0.105	105	105	75-125	0	20	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

QC Batch:	IC/3005	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006	102482001	102482002
	102482003	102482004	102482005	102482006	102482007	102484001
Associated Lab Samples:	102484003	102484004	102484005	102484006	102484007	102524001
	102524002	102524003	102524004	102524005	102526001	102526002
	102526003	102526004	102526005	102558001	102558002	102558003
	102558004					

METHOD BLANK: 104814

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	

LABORATORY CONTROL SAMPLE: 104815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5001	100	90-110	
Sulfate	mg/L	5	5.0432	101	90-110	

LABORATORY CONTROL SAMPLE: 104817

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.321	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104812 Original: 102479005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.0533	1	2.0756		102	0	90-110	0	0	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

QC Batch:	IC/3007	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102472007	102526006	102526007	102538001	102538002	102558001
	102558002	102558003	102558004	102558005		

METHOD BLANK: 104536

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104824

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.967	99.3	90-110	
Fluoride	mg/L	0.5	0.5126	103	90-110	

LABORATORY CONTROL SAMPLE: 104539

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.139	98.6	90-110	
Fluoride	mg/L	6.8	6.554	96	90-110	

LABORATORY CONTROL SAMPLE: 104825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4991	99.8	90-110	
Sulfate	mg/L	5	5.051	101	90-110	
Fluoride	mg/L	0.5	0.5227	105	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104542 104543 Original: 102558005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.1936	1	1.2672	1.2444	107	105	90-110	1.9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104544 Original: 102558005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	19.1889	10	28.7438		95.5	0	90-110	0	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104818 Original: 102526006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.9204	1	1.9551		103	0	90-110	0	0	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

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QC Batch:	IC/3008	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102468004	102558006	102571001	102571002	102571003	102571004
	102571005	102571006	102571007	102571008		

---

METHOD BLANK: 104631

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104641

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4973	99.5	90-110	
Sulfate	mg/L	5	5.048	101	90-110	
Fluoride	mg/L	0.5	0.5191	104	90-110	

LABORATORY CONTROL SAMPLE: 104642

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4971	99.4	90-110	
Sulfate	mg/L	5	5.0535	101	90-110	
Fluoride	mg/L	0.5	0.5198	104	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102558 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104635                      104636                      Original: 102558006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0049	1	0.9902	0.9551	98.5	95	90-110	3.6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104637                      104638                      Original: 102558006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.0288	0.99	103	99	90-110	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104639                      104640                      Original: 102558006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.0001	10	9.9818	9.5407	99.8	95.4	90-110	4.5	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102558 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102558001	GWC-7	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102558002	GWC-8	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102558003	GWC-11	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102558004	GWC-9	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102558005	GWC-12	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102558006	EB-03	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102558001	GWC-7	SM 2540C	GRAV/2819		
102558002	GWC-8	SM 2540C	GRAV/2819		
102558003	GWC-11	SM 2540C	GRAV/2819		
102558004	GWC-9	SM 2540C	GRAV/2819		
102558005	GWC-12	SM 2540C	GRAV/2819		
102558006	EB-03	SM 2540C	GRAV/2819		
102558001	GWC-7	EPA 3005A	DIGM/4236	EPA 6010D	ICP/4959
102558002	GWC-8	EPA 3005A	DIGM/4236	EPA 6010D	ICP/4959
102558003	GWC-11	EPA 3005A	DIGM/4236	EPA 6010D	ICP/4959
102558004	GWC-9	EPA 3005A	DIGM/4236	EPA 6010D	ICP/4959
102558005	GWC-12	EPA 3005A	DIGM/4236	EPA 6010D	ICP/4959
102558006	EB-03	EPA 3005A	DIGM/4236	EPA 6010D	ICP/4959
102558001	GWC-7	EPA 3005A	DIGM/4237	EPA 6020B	ICPM/1044
102558002	GWC-8	EPA 3005A	DIGM/4237	EPA 6020B	ICPM/1044
102558003	GWC-11	EPA 3005A	DIGM/4237	EPA 6020B	ICPM/1044
102558004	GWC-9	EPA 3005A	DIGM/4237	EPA 6020B	ICPM/1044
102558005	GWC-12	EPA 3005A	DIGM/4237	EPA 6020B	ICPM/1044
102558006	EB-03	EPA 3005A	DIGM/4237	EPA 6020B	ICPM/1044
102558001	GWC-7	EPA 300	IC/3005		
102558002	GWC-8	EPA 300	IC/3005		
102558003	GWC-11	EPA 300	IC/3005		
102558004	GWC-9	EPA 300	IC/3005		

Report ID: 102558 - 5008589  
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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102558 CCR - Wansley

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102558001	GWC-7	EPA 300	IC/3007		
102558002	GWC-8	EPA 300	IC/3007		
102558003	GWC-11	EPA 300	IC/3007		
102558004	GWC-9	EPA 300	IC/3007		
102558005	GWC-12	EPA 300	IC/3007		
102558006	EB-03	EPA 300	IC/3008		

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## LABORATORY CERTIFICATIONS

Workorder: 102558 CCR - Wansley

---

Certification Program	Certification Number
NELAC	E57554

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Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

Company: <sup>1</sup> Southern Company Services  
 Report To John Pugh  
 Address: <sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax: <sup>3</sup> 205.992.6781  
 Contact: <sup>4</sup> Joju Abraham  
 Project Location: <sup>5</sup> Plant Wansley  
 Account Number: <sup>6</sup>  
 Special Instructions: <sup>7</sup> Wansley CCR GW

ANALYSIS REQUEST AND  
 CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 109,558  
 Reviewed By: [Signature]  
 11 Page 1 of 1

Sample Shipment Date: <sup>8</sup> 3/29/16

Sample Received Date: <sup>9</sup>  
 Sampled By: <sup>10</sup> Kristen Jurinko  
 # of Business Days (Rush)   
 (Must be cleared through Env. Lab. Prior to shipment)

<sup>12</sup> Standard Turnaround Time

LAB USE ONLY <sup>13</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>	Sample Type Key: <sup>22</sup>	
		Date	Time					HNO3	Ice	HNO3			G-Grab
102558001	GW-7	3/29/16	1015	Monitoring well-landfill	G	GW	3	X					
2	GW-8	3/29/16	1110										
3	GW-11	3/29/16	1240										
4	GW-9	3/29/16	1330										
5	GW-23	3/29/16											
102558002	GW-12	3/29/16	1410										
6	EB-03	3/29/16	1600	Equipment Bank-landfill	G	W	3	X					

LAB USE ONLY: Sample Receipt Information <sup>28</sup>			
Relinquished by: <sup>26</sup> [Signature]	Date/Time	3/29/16	1730
Received by: <sup>27</sup> [Signature]	Date/Time	3/30/16	
Relinquished by: [Signature]	Date/Time	3/30/16	1045
Received by: [Signature]	Date/Time	3/30/16	1045

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102558  
 Carrier: HAND

# of Samples: 6  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

May 12, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102571 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

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## SAMPLE SUMMARY

Workorder: 102571 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102571001	GWC-23	N/A	Water	3/29/2016 16:15	3/30/2016 13:15
102571002	GWC-13	N/A	Water	3/29/2016 16:40	3/30/2016 13:15
102571003	GWC-16	N/A	Water	3/30/2016 09:50	3/30/2016 13:15
102571004	GWC-10	N/A	Water	3/30/2016 10:45	3/30/2016 13:15
102571005	GWC-24	N/A	Water	3/30/2016 09:30	3/30/2016 13:15
102571006	GWC-31	N/A	Water	3/30/2016 10:15	3/30/2016 13:15
102571007	FB-03	N/A	Water	3/30/2016 11:05	3/30/2016 13:15
102571008	GWC-14	N/A	Water	3/30/2016 10:25	3/30/2016 13:15

Report ID: 102571 - 5022110  
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### ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	102571001	<b>Date Received:</b>	3/30/2016 13:15
<b>Sample ID:</b>	GWC-23	<b>Date Collected:</b>	3/29/2016 16:15
<b>Sample Description</b>	Monitoring Well - Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:17	MRP	
Calcium	3.32	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:17	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:15	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Chromium	0.00226J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Antimony	0.000665J	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Barium	0.0114	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 16:56	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 05:22	LBB	
Sulfate	0.5302J	mg/L	0.3000	1.00			4/9/2016 05:22	LBB	
Chloride	1.9463	mg/L	0.0400	0.2500			4/9/2016 05:22	LBB	
Fluoride	0.0308J	mg/L	0.0100	0.3000			4/9/2016 05:22	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

Report ID: 102571 - 5022110  
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## ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

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<b>Lab ID:</b>	<b>102571001</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-23</b>	<b>Date Collected:</b>	<b>3/29/2016 16:15</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

---

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	53	mg/L				4/1/2016 08:55	KLW	

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### ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	102571002	<b>Date Received:</b>	3/30/2016 13:15
<b>Sample ID:</b>	GWC-13	<b>Date Collected:</b>	3/29/2016 16:40
<b>Sample Description</b>	Monitoring Well - Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:23	MRP	
Calcium	3.91	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:23	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:23	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Barium	0.00337J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:02	HAM	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/9/2016 06:01	LBB	
Sulfate	2.8316	mg/L	0.3000	1.00			4/9/2016 06:01	LBB	
Chloride	1.3057	mg/L	0.0400	0.2500			4/9/2016 06:01	LBB	
Fluoride	0.1084J	mg/L	0.0100	0.3000			4/9/2016 06:01	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							4/1/2016 08:55	KLW	

Report ID: 102571 - 5022110  
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## ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

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<b>Lab ID:</b>	<b>102571002</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-13</b>	<b>Date Collected:</b>	<b>3/29/2016 16:40</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

---

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	48	mg/L				4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102571 CCR - Wansley

**Lab ID:** 102571003 **Date Received:** 3/30/2016 13:15  
**Sample ID:** GWC-16 **Date Collected:** 3/30/2016 09:50  
**Sample Description:** Monitoring Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:29	MRP	
Calcium	6.72	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:29	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:40	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Chromium	0.00261J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Barium	0.0174	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:07	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 06:39	LBB	
Sulfate	0.5433J	mg/L	0.3000	1.00			4/9/2016 06:39	LBB	
Chloride	1.4751	mg/L	0.0400	0.2500			4/9/2016 06:39	LBB	
Fluoride	0.0391J	mg/L	0.0100	0.3000			4/9/2016 06:39	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

Report ID: 102571 - 5022110  
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## ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

---

<b>Lab ID:</b>	<b>102571003</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-16</b>	<b>Date Collected:</b>	<b>3/30/2016 09:50</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

---

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	75	mg/L				4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102571 CCR - Wansley

**Lab ID:** 102571004 **Date Received:** 3/30/2016 13:15  
**Sample ID:** GWC-10 **Date Collected:** 3/30/2016 10:45  
**Sample Description:** Monitoring Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:35	MRP	
Calcium	27.6	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:35	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:48	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Cobalt	0.00250J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Barium	0.0127	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:13	HAM	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/9/2016 07:19	LBB	
Sulfate	24.0688	mg/L	0.3000	1.00			4/9/2016 07:19	LBB	
Chloride	3.7204	mg/L	0.0800	0.5000			4/12/2016 15:49	LBB	
Fluoride	1.2013	mg/L	0.0100	0.3000			4/9/2016 07:19	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							4/1/2016 08:55	KLW	

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## ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

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<b>Lab ID:</b>	<b>102571004</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-10</b>	<b>Date Collected:</b>	<b>3/30/2016 10:45</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	177	mg/L				4/1/2016 08:55	KLW	

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### ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	102571005	<b>Date Received:</b>	3/30/2016 13:15
<b>Sample ID:</b>	GWC-24	<b>Date Collected:</b>	3/30/2016 09:30
<b>Sample Description</b>	Monitoring Well - Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:41	MRP	
Calcium	1.01	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:41	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:53	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Cadmium	0.000124J	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Antimony	0.00174J	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Barium	0.00874J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:29	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 07:57	LBB	
Sulfate	1.0189	mg/L	0.3000	1.00			4/9/2016 07:57	LBB	
Chloride	4.6264	mg/L	0.0800	0.5000			4/12/2016 16:27	LBB	
Fluoride	0.0255J	mg/L	0.0100	0.3000			4/9/2016 07:57	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 08:55	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	<b>102571005</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-24</b>	<b>Date Collected:</b>	<b>3/30/2016 09:30</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	39	mg/L				4/1/2016 08:55	KLW	

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### ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	102571006	<b>Date Received:</b>	3/30/2016 13:15
<b>Sample ID:</b>	GWC-31	<b>Date Collected:</b>	3/30/2016 10:15
<b>Sample Description</b>	Monitoring Well - Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:47	MRP	
Calcium	11.3	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:47	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:56	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	0.0202J	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Chromium	0.00334J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Barium	0.00491J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:35	HAM	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/9/2016 08:35	LBB	
Sulfate	15.0114	mg/L	0.3000	1.00			4/9/2016 08:35	LBB	
Chloride	1.9069	mg/L	0.0400	0.2500			4/9/2016 08:35	LBB	
Fluoride	1.5245	mg/L	0.0100	0.3000			4/9/2016 08:35	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							4/1/2016 20:41	KLW	

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## ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

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<b>Lab ID:</b>	<b>102571006</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-31</b>	<b>Date Collected:</b>	<b>3/30/2016 10:15</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	128	mg/L	25	25			4/1/2016 20:41	KLW	

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### ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	102571007	<b>Date Received:</b>	3/30/2016 13:15
<b>Sample ID:</b>	FB-03	<b>Date Collected:</b>	3/30/2016 11:05
<b>Sample Description</b>	Field Blank - Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:53	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:53	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 14:58	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Barium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 17:40	HAM	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/9/2016 09:14	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/9/2016 09:14	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/9/2016 09:14	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/9/2016 09:14	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	<b>102571007</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>FB-03</b>	<b>Date Collected:</b>	<b>3/30/2016 11:05</b>
<b>Sample Description</b>	<b>Field Blank - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	<25	mg/L	25	25			4/1/2016 20:41	KLW	

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### ANALYTICAL RESULTS

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	102571008	<b>Date Received:</b>	3/30/2016 13:15
<b>Sample ID:</b>	GWC-14	<b>Date Collected:</b>	3/30/2016 10:25
<b>Sample Description</b>	Monitoring Well - Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 10:59	MRP	
Calcium	13.8	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 10:59	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	3/31/2016 06:41	WCM	3/31/2016 15:01	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 11:53	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Boron	0.291	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 11:53	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Cobalt	0.176	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Selenium	0.00273J	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Cadmium	0.000222J	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Barium	0.0943	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Thallium	0.000411J	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:08	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 09:52	LBB	
Sulfate	7.2023	mg/L	0.3000	1.00			4/9/2016 09:52	LBB	
Chloride	49.11	mg/L	1.00	6.25			4/12/2016 17:06	LBB	
Fluoride	0.0355J	mg/L	0.0100	0.3000			4/9/2016 09:52	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102571 CCR - Wansley

<b>Lab ID:</b>	<b>102571008</b>	<b>Date Received:</b>	<b>3/30/2016 13:15</b>
<b>Sample ID:</b>	<b>GWC-14</b>	<b>Date Collected:</b>	<b>3/30/2016 10:25</b>
<b>Sample Description</b>	<b>Monitoring Well - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	165	mg/L	25	25			4/1/2016 20:41	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102571 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

QC Batch:	HGPR/1640		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102538001	102538002	102558001	102558002	102558003	102558004
	102558005	102558006	102571001	102571002	102571003	102571004
	102571005	102571006	102571007	102571008		

METHOD BLANK: 104424

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104430

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00204	102	80-120	

LABORATORY CONTROL SAMPLE: 104426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0125	102	80-120	

LABORATORY CONTROL SAMPLE: 104431

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00200	100	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

QC Batch:	DIGM/4239		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102571001	102571002	102571003	102571004	102571005	102571006
	102571007	102571008	102577001	102577002		

METHOD BLANK: 104528

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.00	99.9	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104530                      104531                      Original: 102577001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	22.2	5	27.9	27.1	114	97.8	75-125	15.3	20	

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

QC Batch:	DIGM/4240	Analysis Method:		EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102571001	102571002	102571003	102571004	102571005	102571006
	102571007	102571008				

METHOD BLANK: 104532

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 104533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Lithium	mg/L	0.2	0.196	98.1	80-120
Beryllium	mg/L	0.1	0.0943	94.3	80-120
Boron	mg/L	0.1	0.0941J	94.1	80-120
Chromium	mg/L	0.1	0.107	107	80-120
Cobalt	mg/L	0.1	0.106	106	80-120
Arsenic	mg/L	0.1	0.101	101	80-120
Selenium	mg/L	0.1	0.101	101	80-120
Molybdenum	mg/L	0.1	0.0975	97.5	80-120
Cadmium	mg/L	0.1	0.101	101	80-120
Antimony	mg/L	0.1	0.0984	98.4	80-120
Barium	mg/L	0.1	0.103	103	80-120
Thallium	mg/L	0.1	0.0989	98.9	80-120
Lead	mg/L	0.1	0.101	101	80-120

Report ID: 102571 - 5022110  
 GPC Report Page 24 of 33

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104534                      104535                      Original: 102571004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.0097	0.2	0.185	0.183	87.5	86.4	75-125	1.3	20	
Beryllium	mg/L	4.5e-005	0.1	0.0875	0.0870	87.4	87	75-125	0.46	20	
Boron	mg/L	0.00728	0.1	0.0918J	0.0917J	84.5	84.5	75-125	0	20	
Chromium	mg/L	0.00115	0.1	0.105	0.106	103	104	75-125	0.97	20	
Cobalt	mg/L	0.0025	0.1	0.103	0.104	100	101	75-125	1	20	
Arsenic	mg/L	0.00015	0.1	0.101	0.100	100	100	75-125	0	20	
Selenium	mg/L	0.00059	0.1	0.103	0.100	102	99.6	75-125	2.4	20	
Molybdenum	mg/L	0.00044	0.1	0.104	0.103	103	103	75-125	0	20	
Cadmium	mg/L	6e-006	0.1	0.101	0.100	101	100	75-125	1	20	
Antimony	mg/L	0.00025	0.1	0.0983	0.0977	98	97.5	75-125	0.51	20	
Barium	mg/L	0.0127	0.1	0.120	0.119	107	107	75-125	0	20	
Thallium	mg/L	1.2e-005	0.1	0.102	0.102	102	102	75-125	0	20	
Lead	mg/L	0.00038	0.1	0.102	0.103	102	103	75-125	0.98	20	

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

---

QC Batch: GRAV/2822 Analysis Method: SM 2540C  
 QC Batch Method: SM 2540C  
 Associated Lab Samples: 102571006 102571007 102571008 102577001 102577002 102603001  
 102603002 102603003

---

METHOD BLANK: 104551

Parameter	Units	Blank Result	Reporting Limit Qualifiers
WET CHEMISTRY			
TDS	mg/L	<25	25

---

LABORATORY CONTROL SAMPLE: 104552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
WET CHEMISTRY					
TDS	mg/L	241	256	106	90-110

---

SAMPLE DUPLICATE: 104553 Original: 102571006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	128	126	1.6	20

---

SAMPLE DUPLICATE: 104554 Original: 102603001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
WET CHEMISTRY					
TDS	mg/L	122	127	4	20

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

---

QC Batch:	IC/3008	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102468004	102558006	102571001	102571002	102571003	102571004
	102571005	102571006	102571007	102571008	102577001	102577002

---

METHOD BLANK: 104631

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104641

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4973	99.5	90-110	
Sulfate	mg/L	5	5.048	101	90-110	
Fluoride	mg/L	0.5	0.5191	104	90-110	

LABORATORY CONTROL SAMPLE: 104642

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4971	99.4	90-110	
Sulfate	mg/L	5	5.0535	101	90-110	
Fluoride	mg/L	0.5	0.5198	104	90-110	

---

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104639                      104640                      Original: 102558006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.0001	10	9.9818	9.5407	99.8	95.4	90-110	4.5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104643                      104644                      Original: 102583002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0039	1	1.0522	0.9565	105	95.3	90-110	9.7	10	

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

---

QC Batch:	IC/3010	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102571004	102571005	102571008	102603001	102603002	102603003
	102622001	102622002	102642001	102642002	102642003	102642004
	102642005	102642006	102642007			

---

METHOD BLANK: 104973

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

---

METHOD BLANK: 105056

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

---

LABORATORY CONTROL SAMPLE: 104656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.657	103	90-110	

---

LABORATORY CONTROL SAMPLE: 104974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4971	99.4	90-110	

---

LABORATORY CONTROL SAMPLE: 105057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4943	98.9	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102571 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104657                      104658                      Original: 102622001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0055	1	1.0305	1.015	103	101	90-110	2	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102571 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102571001	GWC-23	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571002	GWC-13	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571003	GWC-16	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571004	GWC-10	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571005	GWC-24	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571006	GWC-31	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571007	FB-03	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571008	GWC-14	EPA 7470A	HGPR/1640	EPA 7470A	CVAA/1825
102571001	GWC-23	SM 2540C	GRAV/2819		
102571002	GWC-13	SM 2540C	GRAV/2819		
102571003	GWC-16	SM 2540C	GRAV/2819		
102571004	GWC-10	SM 2540C	GRAV/2819		
102571005	GWC-24	SM 2540C	GRAV/2819		
102571001	GWC-23	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571002	GWC-13	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571003	GWC-16	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571004	GWC-10	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571005	GWC-24	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571006	GWC-31	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571007	FB-03	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571008	GWC-14	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102571001	GWC-23	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571002	GWC-13	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571003	GWC-16	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571004	GWC-10	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571005	GWC-24	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571006	GWC-31	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571007	FB-03	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102571008	GWC-14	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045

Report ID: 102571 - 5022110  
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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102571 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102571006	GWC-31	SM 2540C	GRAV/2822		
102571007	FB-03	SM 2540C	GRAV/2822		
102571008	GWC-14	SM 2540C	GRAV/2822		
102571001	GWC-23	EPA 300	IC/3008		
102571002	GWC-13	EPA 300	IC/3008		
102571003	GWC-16	EPA 300	IC/3008		
102571004	GWC-10	EPA 300	IC/3008		
102571005	GWC-24	EPA 300	IC/3008		
102571006	GWC-31	EPA 300	IC/3008		
102571007	FB-03	EPA 300	IC/3008		
102571008	GWC-14	EPA 300	IC/3008		
102571004	GWC-10	EPA 300	IC/3010		
102571005	GWC-24	EPA 300	IC/3010		
102571008	GWC-14	EPA 300	IC/3010		

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## LABORATORY CERTIFICATIONS

Workorder: 102571 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

Company:<sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address:<sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup>  
 Special Instructions:<sup>7</sup> Wansley CCR GW

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

Work Order No. 102571  
 Reviewed By: AKJ 3/30/16

Page 1 of 1

Sample Shipment Date:<sup>8</sup> 3/30/16 (Delivered by Gold)  <sup>12</sup> Standard Turnaround Time

Sample Received Date:<sup>9</sup> \_\_\_\_\_  
 Sampled By:<sup>10</sup> KY BEN JURINKO  # of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Signature:   
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>		PRESERVATIVE <sup>20</sup>		Sample Type Key: <sup>22</sup>	Comments <sup>25</sup>
		Date	Time					Ice	HNO3	HNO3	N		
102571001	GW-C-23	3/29/16	1615	monitoring well - landfill	GW	3	3						
2	GW-C-13	3/29/16	1640	↓		3							
3	GW-C-16	3/29/16	0950				3						
4	GW-C-10	3/30/16	1045	↓		2							
5	GW-C-24	3/30/16	0930				2						
6	GW-C-31	3/30/16	1015	Field Blank-landfill	WF	3							
7	FB-03	3/30/16	1105				3						
8	GW-C-14	3/30/16	1025	Monitoring well - landfill	GW	3							

LAB USE ONLY: Sample Receipt Information <sup>28</sup>							
Relinquished by: <sup>26</sup>	Date/Time	3/30/16 1306	4.8°C (69°F - IR-3P) hand, with ice, no seal, cooler in good condition,				
Received by: <sup>27</sup>	Date/Time	3-30-16 0835	pH 2				
Relinquished by:	Date/Time						
Received by:	Date/Time						

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102571  
 Carrier: HAND

# of Samples: 8  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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	4.8
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

May 12, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102583 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

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## SAMPLE SUMMARY

Workorder: 102583 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102583001	FB-04	N/A	Water	3/31/2016 08:30	3/31/2016 13:30
102583002	EB-04	N/A	Water	3/31/2016 08:30	3/31/2016 13:30
102583003	GWA-3	N/A	Water	3/31/2016 08:20	3/31/2016 13:30
102583004	DUP-04	N/A	Water	3/30/2016 00:00	3/31/2016 13:30
102583005	GWC-17	N/A	Water	3/30/2016 11:30	3/31/2016 13:30
102583006	GWC-18	N/A	Water	3/30/2016 13:30	3/31/2016 13:30
102583007	DUP-03	N/A	Water	3/30/2016 00:00	3/31/2016 13:30
102583008	GWC-15	N/A	Water	3/30/2016 12:05	3/31/2016 13:30
102583009	GWC-19	N/A	Water	3/30/2016 14:45	3/31/2016 13:30
102583010	GWC-21	N/A	Water	3/30/2016 16:30	3/31/2016 13:30
102583011	GWC-20	N/A	Water	3/30/2016 16:35	3/31/2016 13:30
102583012	GWC-22	N/A	Water	3/31/2016 09:50	3/31/2016 13:30

Report ID: 102583 - 5018656  
GPC Report Page 2 of 34

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583001</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>FB-04</b>	<b>Date Collected:</b>	<b>3/31/2016 08:30</b>
<b>Sample Description</b>	<b>Field Blank - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 11:54	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 11:54	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:01	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:01	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 12:10	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 12:10	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Barium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:24	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 14:21	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/9/2016 14:21	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/9/2016 14:21	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/9/2016 14:21	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	<25	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583002</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>EB-04</b>	<b>Date Collected:</b>	<b>3/31/2016 08:30</b>
<b>Sample Description</b>	<b>Equipment Blank – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 12:00	MRP	
Calcium	<0.500	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 12:00	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:04	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:04	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 12:16	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 12:16	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Barium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:30	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 14:59	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/9/2016 14:59	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/9/2016 14:59	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/9/2016 14:59	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	<25	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

**Lab ID:** 102583003 **Date Received:** 3/31/2016 13:30  
**Sample ID:** GWA-3 **Date Collected:** 3/31/2016 08:20  
**Sample Description:** Background Well - Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 12:06	MRP	
Calcium	39.6	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 12:06	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:06	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:06	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 12:21	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 12:21	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Cadmium	0.000546J	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Antimony	0.000602J	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Barium	0.0270	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:35	HAM	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/9/2016 16:55	LBB	
Sulfate	202.982	mg/L	3.00	10.0			4/12/2016 18:22	LBB	
Chloride	8.3045	mg/L	0.2000	1.25			4/12/2016 17:44	LBB	
Fluoride	0.0551J	mg/L	0.0100	0.3000			4/9/2016 16:55	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	401	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583004</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>DUP-04</b>	<b>Date Collected:</b>	<b>3/30/2016 00:00</b>
<b>Sample Description</b>	<b>Duplicate - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 12:12	MRP	
Calcium	6.75	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 12:12	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:09	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:09	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 12:27	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 12:27	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Barium	0.0362	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:41	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 17:33	LBB	
Sulfate	0.6322J	mg/L	0.3000	1.00			4/9/2016 17:33	LBB	
Chloride	1.9057	mg/L	0.0400	0.2500			4/9/2016 17:33	LBB	
Fluoride	0.0364J	mg/L	0.0100	0.3000			4/9/2016 17:33	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	87	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

**Lab ID:** 102583005 **Date Received:** 3/31/2016 13:30  
**Sample ID:** GWC-17 **Date Collected:** 3/30/2016 11:30  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 12:18	MRP	
Calcium	8.15	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 12:18	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:12	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:12	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 12:54	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 12:54	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Barium	0.0178	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:46	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 18:11	LBB	
Sulfate	0.8313J	mg/L	0.3000	1.00			4/9/2016 18:11	LBB	
Chloride	1.3046	mg/L	0.0400	0.2500			4/9/2016 18:11	LBB	
Fluoride	0.0422J	mg/L	0.0100	0.3000			4/9/2016 18:11	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	97	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583006</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>GWC-18</b>	<b>Date Collected:</b>	<b>3/30/2016 13:30</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 12:24	MRP	
Calcium	6.88	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 12:24	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:20	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:20	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 13:00	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 13:00	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Barium	0.0349	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:52	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 18:50	LBB	
Sulfate	0.6239J	mg/L	0.3000	1.00			4/9/2016 18:50	LBB	
Chloride	1.9012	mg/L	0.0400	0.2500			4/9/2016 18:50	LBB	
Fluoride	0.0362J	mg/L	0.0100	0.3000			4/9/2016 18:50	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	84	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583007</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>DUP-03</b>	<b>Date Collected:</b>	<b>3/30/2016 00:00</b>
<b>Sample Description</b>	<b>Duplicate - Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 12:54	MRP	
Calcium	13.2	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 12:54	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:25	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:25	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 13:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Boron	0.0751J	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 13:05	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Barium	0.0131	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 18:57	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 19:28	LBB	
Sulfate	1.726	mg/L	0.3000	1.00			4/9/2016 19:28	LBB	
Chloride	9.55	mg/L	0.2000	1.25			4/14/2016 15:53	LBB	
Fluoride	0.0785J	mg/L	0.0100	0.3000			4/9/2016 19:28	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	87	mg/L	25	25			4/1/2016 20:41	KLW	

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### ANALYTICAL RESULTS

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583008</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>GWC-15</b>	<b>Date Collected:</b>	<b>3/30/2016 12:05</b>
<b>Sample Description</b>	<b>Monitoring Well</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 13:00	MRP	
Calcium	13.3	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 13:00	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:28	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:28	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 13:12	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Boron	0.0787J	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 13:12	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Barium	0.0136	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 19:25	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/9/2016 20:07	LBB	
Sulfate	1.7296	mg/L	0.3000	1.00			4/9/2016 20:07	LBB	
Chloride	9.921	mg/L	0.4000	2.50			4/12/2016 19:01	LBB	
Fluoride	0.0785J	mg/L	0.0100	0.3000			4/9/2016 20:07	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	94	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583009</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>GWC-19</b>	<b>Date Collected:</b>	<b>3/30/2016 14:45</b>
<b>Sample Description</b>	<b>Monitoring Well</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 13:06	MRP	
Calcium	8.32	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 13:06	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:41	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:41	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 13:17	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 13:17	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Barium	0.0986	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 19:30	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/12/2016 23:30	LBB	
Sulfate	2.3237	mg/L	0.3000	1.00			4/12/2016 23:30	LBB	
Chloride	2.2278	mg/L	0.0400	0.2500			4/12/2016 23:30	LBB	
Fluoride	0.0369J	mg/L	0.0100	0.3000			4/12/2016 23:30	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	69	mg/L	25	25			4/1/2016 20:41	KLW	

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### ANALYTICAL RESULTS

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583010</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>GWC-21</b>	<b>Date Collected:</b>	<b>3/30/2016 16:30</b>
<b>Sample Description</b>	<b>Monitoring Well</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 15:20	KLW	4/6/2016 13:12	MRP	
Calcium	2.98	mg/L	0.100	0.500	4/5/2016 15:20	KLW	4/6/2016 13:12	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:49	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:49	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/1/2016 09:50	KLW	4/8/2016 13:23	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Boron	<0.100	mg/L	0.0200	0.100	4/1/2016 09:50	KLW	4/8/2016 13:23	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Barium	0.0293	mg/L	0.00200	0.0100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Lead	<0.00500	mg/L	0.00100	0.00500	4/1/2016 09:50	KLW	4/7/2016 19:36	HAM	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/13/2016 19:57	LBB	
Sulfate	0.3269J	mg/L	0.3000	1.00			4/13/2016 00:08	LBB	
Chloride	3.9326	mg/L	0.0800	0.5000			4/13/2016 19:57	LBB	
Fluoride	0.0137J	mg/L	0.0100	0.3000			4/13/2016 00:08	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	42	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

**Lab ID:** 102583011 **Date Received:** 3/31/2016 13:30  
**Sample ID:** GWC-20 **Date Collected:** 3/30/2016 16:35  
**Sample Description:** Monitoring Well – Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					4/5/2016 12:00	KLW	4/6/2016 13:30	MRP	
Calcium	8.78	mg/L	0.100	0.500	4/5/2016 12:00	KLW	4/6/2016 13:30	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:55	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:55	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Barium	0.0344	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/5/2016 12:00	KLW	4/8/2016 13:39	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/13/2016 00:46	LBB	
Sulfate	1.0356	mg/L	0.3000	1.00			4/13/2016 00:46	LBB	
Chloride	2.0074	mg/L	0.0400	0.2500			4/13/2016 00:46	LBB	
Fluoride	0.04J	mg/L	0.0100	0.3000			4/13/2016 00:46	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	88	mg/L	25	25			4/1/2016 20:41	KLW	

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**ANALYTICAL RESULTS**

Workorder: 102583 CCR - Wansley

<b>Lab ID:</b>	<b>102583012</b>	<b>Date Received:</b>	<b>3/31/2016 13:30</b>
<b>Sample ID:</b>	<b>GWC-22</b>	<b>Date Collected:</b>	<b>3/31/2016 09:50</b>
<b>Sample Description</b>	<b>Monitoring Well – Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/5/2016 12:00	KLW	4/6/2016 13:48	MRP	
Calcium	11.5	mg/L	0.100	0.500	4/5/2016 12:00	KLW	4/6/2016 13:48	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					4/4/2016 06:35	WCM	4/4/2016 13:57	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	4/4/2016 06:35	WCM	4/4/2016 13:57	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Barium	0.0249	mg/L	0.00200	0.0100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/5/2016 12:00	KLW	4/8/2016 14:18	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							4/13/2016 01:25	LBB	
Sulfate	0.3648J	mg/L	0.3000	1.00			4/13/2016 01:25	LBB	
Chloride	1.8479	mg/L	0.0400	0.2500			4/13/2016 01:25	LBB	
Fluoride	0.0429J	mg/L	0.0100	0.3000			4/13/2016 01:25	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							4/1/2016 20:41	KLW	
TDS	102	mg/L	25	25			4/1/2016 20:41	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102583 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	DIGM/4239		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102571001	102571002	102571003	102571004	102571005	102571006
	102571007	102571008	102577001	102577002	102583001	102583002
	102583003	102583004	102583005	102583006	102583007	102583008
	102583009	102583010				

METHOD BLANK: 104528

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.00	99.9	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104530                      104531                      Original: 102577001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	22.2	5	27.9	27.1	114	97.8	75-125	15.3	20	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	DIGM/4240		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102571001	102571002	102571003	102571004	102571005	102571006
	102571007	102571008	102583001	102583002	102583003	102583004
	102583005	102583006	102583007	102583008	102583009	102583010

METHOD BLANK: 104532

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.196	98.1	80-120	
Beryllium	mg/L	0.1	0.0943	94.3	80-120	
Boron	mg/L	0.1	0.0941J	94.1	80-120	
Chromium	mg/L	0.1	0.107	107	80-120	
Cobalt	mg/L	0.1	0.106	106	80-120	
Arsenic	mg/L	0.1	0.101	101	80-120	
Selenium	mg/L	0.1	0.101	101	80-120	
Molybdenum	mg/L	0.1	0.0975	97.5	80-120	
Cadmium	mg/L	0.1	0.101	101	80-120	
Antimony	mg/L	0.1	0.0984	98.4	80-120	
Barium	mg/L	0.1	0.103	103	80-120	
Thallium	mg/L	0.1	0.0989	98.9	80-120	
Lead	mg/L	0.1	0.101	101	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104534                      104535                      Original: 102571004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.0097	0.2	0.185	0.183	87.5	86.4	75-125	1.3	20	
Beryllium	mg/L	4.5e-005	0.1	0.0875	0.0870	87.4	87	75-125	0.46	20	
Boron	mg/L	0.00728	0.1	0.0918J	0.0917J	84.5	84.5	75-125	0	20	
Chromium	mg/L	0.00115	0.1	0.105	0.106	103	104	75-125	0.97	20	
Cobalt	mg/L	0.0025	0.1	0.103	0.104	100	101	75-125	1	20	
Arsenic	mg/L	0.00015	0.1	0.101	0.100	100	100	75-125	0	20	
Selenium	mg/L	0.00059	0.1	0.103	0.100	102	99.6	75-125	2.4	20	
Molybdenum	mg/L	0.00044	0.1	0.104	0.103	103	103	75-125	0	20	
Cadmium	mg/L	6e-006	0.1	0.101	0.100	101	100	75-125	1	20	
Antimony	mg/L	0.00025	0.1	0.0983	0.0977	98	97.5	75-125	0.51	20	
Barium	mg/L	0.0127	0.1	0.120	0.119	107	107	75-125	0	20	
Thallium	mg/L	1.2e-005	0.1	0.102	0.102	102	102	75-125	0	20	
Lead	mg/L	0.00038	0.1	0.102	0.103	102	103	75-125	0.98	20	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	GRAV/2822		Analysis Method:	SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	102571006	102571007	102571008	102577001	102577002	102583001
	102583002	102583003	102583004	102583005	102583006	102583007
	102583008	102583009	102583010	102583011	102583012	102603001
	102603002	102603003				

METHOD BLANK: 104551

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 104552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	256	106	90-110	

SAMPLE DUPLICATE: 104553 Original: 102571006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	128	126	1.6	20	

SAMPLE DUPLICATE: 104554 Original: 102603001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	122	127	4	20	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	HGPR/1641	Analysis Method:		EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	102577001	102577002	102583001	102583002	102583003	102583004
	102583005	102583006	102583007	102583008	102583009	102583010
	102583011	102583012	102603001	102603002	102603003	

METHOD BLANK: 104565

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 104571

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 104566

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00205	102	80-120	

LABORATORY CONTROL SAMPLE: 104567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0124	101	80-120	

LABORATORY CONTROL SAMPLE: 104572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00201	100	80-120	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	DIGM/4241		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	102583011	102583012	102603001	102603002	102603003	102622001
	102622002	102642001	102642002	102642003	102642004	102642005
	102642006	102642007				

METHOD BLANK: 104593

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 104594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.22	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104595                      104596                      Original: 102583011

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	8.78	5	14.1	14.0	106	104	75-125	1.9	20	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch: DIGM/4242 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 102583011 102583012

METHOD BLANK: 104597

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 104598

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Lithium	mg/L	0.2	0.201	101	80-120
Beryllium	mg/L	0.1	0.0985	98.5	80-120
Boron	mg/L	0.1	0.0973J	97.3	80-120
Chromium	mg/L	0.1	0.105	105	80-120
Cobalt	mg/L	0.1	0.103	103	80-120
Arsenic	mg/L	0.1	0.0979	97.9	80-120
Selenium	mg/L	0.1	0.0972	97.2	80-120
Molybdenum	mg/L	0.1	0.0955	95.5	80-120
Cadmium	mg/L	0.1	0.0983	98.3	80-120
Antimony	mg/L	0.1	0.0953	95.3	80-120
Barium	mg/L	0.1	0.0983	98.3	80-120
Thallium	mg/L	0.1	0.0985	98.5	80-120
Lead	mg/L	0.1	0.0996	99.6	80-120

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104599                      104600                      Original: 102583011

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.00247	0.2	0.188	0.187	92.6	92.5	75-125	0.11	20	
Beryllium	mg/L	9e-006	0.1	0.0917	0.0954	91.7	95.4	75-125	4	20	
Boron	mg/L	0.0034	0.1	0.0917J	0.0931J	88.3	89.7	75-125	1.6	20	
Chromium	mg/L	0.00058	0.1	0.103	0.106	102	105	75-125	2.9	20	
Cobalt	mg/L	0.00058	0.1	0.102	0.106	101	105	75-125	3.9	20	
Arsenic	mg/L	4.7e-005	0.1	0.0966	0.100	96.5	100	75-125	3.6	20	
Selenium	mg/L	0.00021	0.1	0.0951	0.0995	94.8	99.3	75-125	4.6	20	
Molybdenum	mg/L	0.00019	0.1	0.0976	0.101	97.4	101	75-125	3.6	20	
Cadmium	mg/L	1.2e-005	0.1	0.0983	0.100	98.3	100	75-125	1.7	20	
Antimony	mg/L	3.9e-005	0.1	0.0954	0.0979	95.4	97.9	75-125	2.6	20	
Barium	mg/L	0.0344	0.1	0.132	0.138	97.8	104	75-125	6.1	20	
Thallium	mg/L	1e-005	0.1	0.0968	0.100	96.8	100	75-125	3.3	20	
Lead	mg/L	4.6e-005	0.1	0.0989	0.102	98.9	102	75-125	3.1	20	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	IC/3008	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102468004	102558006	102571001	102571002	102571003	102571004
	102571005	102571006	102571007	102571008	102577001	102577002
	102583001	102583002	102583003	102583004	102583005	102583006
	102583007	102583008				

METHOD BLANK: 104641

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

LABORATORY CONTROL SAMPLE: 104642

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4971	99.4	90-110	
Sulfate	mg/L	5	5.0535	101	90-110	
Fluoride	mg/L	0.5	0.5198	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104639 104640 Original: 102558006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.0001	10	9.9818	9.5407	99.8	95.4	90-110	4.5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104643 104644 Original: 102583002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0039	1	1.0522	0.9565	105	95.3	90-110	9.7	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104645 104646 Original: 102583002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.0545	0.9944	105	99.4	90-110	5.5	10	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104647                      104648                      Original: 102583002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.2439	9.49	102	94.9	90-110	7.2	10	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch:	IC/3010	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	102571004	102571005	102571008	102583003	102583008	102583009
	102583010	102583011	102583012	102603001	102603002	102603003
	102622001	102622002	102642001	102642002	102642003	102642004
	102642005	102642006	102642007			

METHOD BLANK: 104663

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 104973

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	
Fluoride	mg/L	<0.3	0.3	

METHOD BLANK: 105048

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

METHOD BLANK: 105056

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	
Sulfate	mg/L	<1	1	

LABORATORY CONTROL SAMPLE: 104656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.657	103	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

LABORATORY CONTROL SAMPLE: 104664

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5005	100	90-110	
Sulfate	mg/L	5	5.0673	101	90-110	
Fluoride	mg/L	0.5	0.5236	105	90-110	

LABORATORY CONTROL SAMPLE: 104974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4971	99.4	90-110	
Sulfate	mg/L	5	5.0445	101	90-110	
Fluoride	mg/L	0.5	0.5206	104	90-110	

LABORATORY CONTROL SAMPLE: 104975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7	7.1727	103	90-110	

LABORATORY CONTROL SAMPLE: 104976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.657	103	90-110	
Fluoride	mg/L	6.8	6.812	99.7	90-110	

LABORATORY CONTROL SAMPLE: 105049

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.499	99.8	90-110	

LABORATORY CONTROL SAMPLE: 105057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4943	98.9	90-110	
Sulfate	mg/L	5	5.0279	101	90-110	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104657                      104658                      Original: 102622001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0055	1	1.0305	1.015	103	101	90-110	2	10	

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**QUALITY CONTROL DATA**

Workorder: 102583 CCR - Wansley

QC Batch: IC/3012 Analysis Method: EPA 300  
 QC Batch Method: EPA 300  
 Associated Lab Samples: 102583007

METHOD BLANK: 104977

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

METHOD BLANK: 104987

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.25	0.25	

LABORATORY CONTROL SAMPLE: 104978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.498	99.6	90-110	

LABORATORY CONTROL SAMPLE: 104980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.66	103	90-110	

LABORATORY CONTROL SAMPLE: 104988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.497	99.4	90-110	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102583 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102583001	FB-04	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583002	EB-04	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583003	GWA-3	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583004	DUP-04	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583005	GWC-17	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583006	GWC-18	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583007	DUP-03	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583008	GWC-15	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583009	GWC-19	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583010	GWC-21	EPA 3005A	DIGM/4239	EPA 6010D	ICP/4961
102583001	FB-04	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583002	EB-04	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583003	GWA-3	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583004	DUP-04	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583005	GWC-17	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583006	GWC-18	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583007	DUP-03	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583008	GWC-15	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583009	GWC-19	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583010	GWC-21	EPA 3005A	DIGM/4240	EPA 6020B	ICPM/1045
102583001	FB-04	SM 2540C	GRAV/2822		
102583002	EB-04	SM 2540C	GRAV/2822		
102583003	GWA-3	SM 2540C	GRAV/2822		
102583004	DUP-04	SM 2540C	GRAV/2822		
102583005	GWC-17	SM 2540C	GRAV/2822		
102583006	GWC-18	SM 2540C	GRAV/2822		
102583007	DUP-03	SM 2540C	GRAV/2822		
102583008	GWC-15	SM 2540C	GRAV/2822		
102583009	GWC-19	SM 2540C	GRAV/2822		
102583010	GWC-21	SM 2540C	GRAV/2822		
102583011	GWC-20	SM 2540C	GRAV/2822		
102583012	GWC-22	SM 2540C	GRAV/2822		

Report ID: 102583 - 5018656  
 GPC Report Page 31 of 34

**CERTIFICATE OF ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 102583 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102583001	FB-04	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583002	EB-04	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583003	GWA-3	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583004	DUP-04	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583005	GWC-17	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583006	GWC-18	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583007	DUP-03	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583008	GWC-15	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583009	GWC-19	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583010	GWC-21	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583011	GWC-20	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583012	GWC-22	EPA 7470A	HGPR/1641	EPA 7470A	CVAA/1826
102583011	GWC-20	EPA 3005A	DIGM/4241	EPA 6010D	ICP/4962
102583012	GWC-22	EPA 3005A	DIGM/4241	EPA 6010D	ICP/4962
102583011	GWC-20	EPA 3005A	DIGM/4242	EPA 6020B	ICPM/1042
102583012	GWC-22	EPA 3005A	DIGM/4242	EPA 6020B	ICPM/1042
102583001	FB-04	EPA 300	IC/3008		
102583002	EB-04	EPA 300	IC/3008		
102583003	GWA-3	EPA 300	IC/3008		
102583004	DUP-04	EPA 300	IC/3008		
102583005	GWC-17	EPA 300	IC/3008		
102583006	GWC-18	EPA 300	IC/3008		
102583007	DUP-03	EPA 300	IC/3008		
102583008	GWC-15	EPA 300	IC/3008		
102583003	GWA-3	EPA 300	IC/3010		
102583008	GWC-15	EPA 300	IC/3010		
102583009	GWC-19	EPA 300	IC/3010		
102583010	GWC-21	EPA 300	IC/3010		
102583011	GWC-20	EPA 300	IC/3010		

Report ID: 102583 - 5018656  
 GPC Report Page 32 of 34

**CERTIFICATE OF ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102583 CCR - Wansley

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102583012	GWC-22	EPA 300	IC/3010		
102583007	DUP-03	EPA 300	IC/3012		

---

#### CERTIFICATE OF ANALYSIS

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## LABORATORY CERTIFICATIONS

Workorder: 102583 CCR - Wansley

---

Certification Program	Certification Number
NELAC	E57554

### CERTIFICATE OF ANALYSIS

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# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**LAB USE ONLY**

Work Order No. 102583  
 Reviewed By: [Signature] 3-31-16  
 Page 1 of 1

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

Company: Southern Company Services  
 Report To: John Pugh  
 Address: 42 Inverness Center Parkway  
Birmingham, AL 35242  
 Phone/Fax: 205.992.6781  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number:   
 Special Instructions: Wansley CCR GW

Sample Shipment Date: 3/31/16 (Delivered by Soldier)  <sup>12</sup> Standard Turnaround Time  
 Sample Received Date:   # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)  
 Sampled By: Kristen Jurinko

Signature: [Signature]  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE <sup>20</sup>		ANALYSIS REQUESTED <sup>21</sup>		Sample Type Key: <sup>22</sup>	
HNO3	Ice	HNO3		G-Grab	O-Other
N	I	N		O-Oil	C-Composite
				S-Solid	W-Wipe
				SW-Surface Water	GW-Ground Water
				WW-Waste Water	DW-Drinking Water
				Preservative Key: <sup>24</sup>	
				H-Hydrochloric Acid	N-Nitric Acid
				S-Sulfuric Acid	SH-Sodium Hydroxide
				SB-Sodium Borate	P-Phosphoric Acid
				ST-Sodium Thiosulfate	I-Ice
				U-Unpreserved	

LAB USE ONLY <sup>13</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>			LAB USE ONLY <sup>25</sup> Comments	
		Date	Time					EPA 6020 & EPA 7470	CI, F, SO4 EPA 300	Radium 226 & 228		Ga Tech
	FB-04	3/31/16	0830	Field Blank - landfill	G	wt	3	X	X	X		102583001 ↓ 2 3 4 5 6 7 8 9 10
	EB-04	3/31/16	0830	Equipment Blank - on	G	wt	3	X	X	X		
	GWA-3	3/31/16	0830	Background well - landfill	G	GW	2	X	X	X		
	DUP-04	3/30/16	—	Duplicate - landfill	G	GW	3	X	X	X		
	GWC-13	3/30/16	1130	Monitoring well - landfill	↓	↓	↓	↓	↓	↓		
	GWC-18	3/30/16	1330	↓	↓	↓	↓	↓	↓	↓		
	DUP-03	3/30/16	—	Duplicate - landfill	↓	↓	↓	↓	↓	↓		
	GWC-15	3/30/16	1205	Monitoring well	↓	↓	↓	↓	↓	↓		
	GWC-19	3/30/16	1445	↓	↓	↓	↓	↓	↓	↓		
	GWC-21	3/30/16	1630	↓	↓	↓	↓	↓	↓	↓		

**LAB USE ONLY: Sample Receipt Information <sup>28</sup>**

Relinquished by: [Signature] Date/Time 3/31/16 1305 5.0°C (GPEL-1R-3P), within 1 meter in good condition, no seal, PTH  
 Received by: [Signature] Date/Time 3/31/16 1330 Hand.  
 Relinquished by: [Signature] Date/Time   
 Received by: [Signature] Date/Time 3/31/16

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 102583  
 Reviewed By: [Signature]  
 Date: 3-31-16

Page 1 of 1

Sample Shipment Date:<sup>8</sup> 3/31/16 (Delivered by truck)  <sup>12</sup> Standard Turnaround Time  
 Sample Received Date:<sup>9</sup> 3/31/16

Sampled By:<sup>10</sup> Kristen Dinko  # of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Company:<sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address:<sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup>  
 Special Instructions:<sup>7</sup> Wansley CCR GW

[Signature]  
 Signature  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE <sup>20</sup>		ANALYSIS REQUESTED <sup>21</sup>		Sample Type Key: <sup>22</sup>		
HNO3 N	Ice I	HNO3 N		G-Grab	O-Other	C-Composite
				O-Oil	S-Solid	W-Wipe
				SW-Surface Water	GW-Ground Water	
				WW-Waste Water	DW-Drinking Water	
				Preservative Key: <sup>24</sup>		
				H-Hydrochloric Acid	N-Nitric Acid	
				S-Sulfuric Acid	SH-Sodium Hydroxide	
				SB-Sodium Borate	P-Phosphoric Acid	
				ST-Sodium Thiosulfate	I-Ice	U-Unpreserved

LAB USE ONLY <sup>13</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>				Comments		
		Date	Time				HNO3 N	Ice I	HNO3 N				
<u>102583011</u>	<u>GWC-20</u>	<u>3/30/16</u>	<u>1635</u>	<u>monitoring well - landfill</u>	<u>GW</u>	<u>3</u>							
<u>↓ 12</u>	<u>GWC-22</u>	<u>3/31/16</u>	<u>0950</u>	<u>↓</u>	<u>↓</u>	<u>3</u>							

LAB USE ONLY: Sample Receipt Information<sup>28</sup>

Relinquished by:<sup>26</sup> [Signature] Date/Time 3/31/16 16:35  
 Received by:<sup>27</sup> [Signature] Date/Time 3/31/16 13:30  
 Relinquished by: Date/Time  
 Received by: AMY 3/31/16 Date/Time

*5.0L GPEL R-901 with ice, cooling and condition, no seal*  
*PH 2, Hand.*

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102583  
 Carrier: HAND

# of Samples: 12  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

May 1, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 102956 Groundwater - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 102956 - 5015431  
GPC Report Page 1 of 7

### CERTIFICATE OF ANALYSIS

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## SAMPLE SUMMARY

Workorder: 102956 Groundwater - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102956001	GWC-14	N/A	Water	4/20/2016 15:55	4/21/2016 10:30

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## ANALYTICAL RESULTS

Workorder: 102956 Groundwater - Wansley

<b>Lab ID:</b>	102956001	<b>Date Received:</b>	4/21/2016 10:30
<b>Sample ID:</b>	GWC-14	<b>Date Collected:</b>	4/20/2016 15:55
<b>Sample Description</b>	Monitoring Well	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					4/22/2016 09:45	MRP	4/25/2016 17:26	MRP	
Cobalt	0.13	mg/L	0.00050	0.0013	4/22/2016 09:45	MRP	4/25/2016 17:26	MRP	
Nickel	0.013	mg/L	0.0013	0.0025	4/22/2016 09:45	MRP	4/25/2016 17:26	MRP	
Selenium	<0.0050	mg/L	0.0025	0.0050	4/22/2016 09:45	MRP	4/25/2016 17:26	MRP	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 102956 Groundwater - Wansley

---

### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 102956 Groundwater - Wansley

QC Batch: DIGM/4277 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 102956001

METHOD BLANK: 105287

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Cobalt	mg/L	<0.0013	0.0013
Nickel	mg/L	<0.0025	0.0025
Selenium	mg/L	<0.0050	0.0050

LABORATORY CONTROL SAMPLE: 105288

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Cobalt	mg/L	0.25	0.26	106	80-120
Nickel	mg/L	0.25	0.27	106	80-120
Selenium	mg/L	0.25	0.24	94.7	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105289 105290 Original: 102956001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Cobalt	mg/L	0.13	0.25	0.40	0.40	108	110	75-125	1.8	20	
Nickel	mg/L	0.013	0.25	0.28	0.28	106	107	75-125	0.94	20	
Selenium	mg/L	0.0019	0.25	0.25	0.25	98.8	99.4	75-125	0.61	20	

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102956 Groundwater - Wansley

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102956001	GWC-14	EPA 3005A	DIGM/4277	EPA 6010D	ICP/4988

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## LABORATORY CERTIFICATIONS

Workorder: 102956 Groundwater - Wansley

---

Certification Program	Certification Number
NELAC	E57554

### CERTIFICATE OF ANALYSIS

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# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**LAB  
USE  
ONLY**

Work Order No: 1029560  
 Reviewed By:

Page 1 of 1

Sample Shipment Date:<sup>8</sup> 4/20/16  <sup>11</sup> Standard Turnaround Time  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_  <sup>12</sup> # of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Sampled By:<sup>10</sup> J. Benjamin Hodges

Signature  
  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Company:<sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley State GW

LAB USE ONLY <sup>13</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>		PRESERVATIVE <sup>20</sup>			Sample Type Key: <sup>22</sup>
		Date	Time					HNO3	HW03	G-Grab	O-Other	C-Composite	
<u>102956001</u>	GWC-14	4/20/2016	1555	Monitoring Well	G	GW	1	<u>N</u>	<u>✓</u>	<u>404</u>	<u>N</u>	<u>✓</u>	
LAB USE ONLY: Sample Receipt Information <sup>28</sup>													
Relinquished by: <sup>26</sup> <u>Ben Hodges</u>		Date/Time <u>4/20/16 1715</u>		Temperature <u>4.3°C (GPEL-IR-SP) with ice cooler in good condition. see Pk1</u>									
Received by: <sup>27</sup>		Date/Time <u>4/21/16 @ 10:30</u>											
Relinquished by:		Date/Time											
Received by:		Date/Time											

Notes:  
 FedEx # 8088 5917 3152

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102956  
 Carrier: FEDEX

# of Samples: 1  
 Tracking No: 8088591735152

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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	4.3
COC is present	True	Overwrite present on COC.
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102467001	GWA-29, Water	3/22/2016 12:50:00 PM	Ga Tech
102467002	GWA-28, Water	3/22/2016 12:25:00 PM	Ga Tech
102467003	EB-01, Water	3/22/2016 3:50:00 PM	Ga Tech

**Certification**

Data approved by Gary Smith  
Georgia Power Company

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102467001  
 Collection Date 3/22/2016 12:50:00 PM  
 Sampling Media Water  
 Station GWA-29

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.78E-01
Ra-228	Ga Tech	pCi/L			5.36E-01

**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location Wansley  
Sample Number 102467002  
Collection Date 3/22/2016 12:25:00 PM  
Sampling Media Water  
Station GWA-28

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.42E-01
Ra-228	Ga Tech	pCi/L			6.20E-01



**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102467003  
 Collection Date 3/22/2016 3:50:00 PM  
 Sampling Media Water  
 Station EB-01

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.35E-01
Ra-228	Ga Tech	pCi/L			6.57E-01

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

Company:<sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address:<sup>2</sup> 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup>  
 Special Instructions:<sup>7</sup> Wansley CCR GW

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 102467  
 Reviewed By: RA 3-23-16

11 Page 1 of 1

Sample Shipment Date:<sup>8</sup> 3/22/16  12 Standard Turnaround Time

Sample Received Date:<sup>9</sup>  
 Sampled By:<sup>10</sup> Kristen Juvanko  
 # of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Signature: Kristen Juvanko  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.  
 17 Matrix 18 19  
 Sample Type  
 No. of Containers

LAB USE ONLY (LAB ID)	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>				PRESERVATIVE <sup>20</sup>	Sample Type Key: <sup>22</sup> G-Gea C-Other C-Composite  Matrix Key: <sup>23</sup> O-Cl S-Sol S-Sludge W-Wipe SH-Surface Water Ctl-Coast Water W/H-Flow Water DN-Downing Water  Preservative Key: <sup>24</sup> H-Hydrochloric Acid R-Ribitic Acid S-Sulfuric Acid SH-Sodium Hydroxide SS-Sodium Sulfate P-Phosphoric Acid ST-Sodium Thiosulfate H-Ho U-Untreated
		HNO3 N	HNO3 N					Ice I	Other				
		C.I. F. SO4 EPA 300 TDS SM2540C Radium 226 & 228 Ga Tech	EPA 6020 & EPA 7470 Metals app. III & IV										
102467001	GW1-09	3/22/16	1350	Backgroundwell - Landfill	G	GW	3	X	X	X			
	GW1-28	3/22/16	1385	Backgroundwell - Landfill	G	GW	3	X	X	X			
	EB-01	3/22/16	1550	Equipment Blank	G	W	3	X	X	X			

LAB USE ONLY: Sample Receipt Information <sup>28</sup>  
 Relinquished by:<sup>26</sup> [Signature] Date/Time: 3/23/16  
 Received by:<sup>27</sup> [Signature] Date/Time: 3-23-16  
 Relinquished by:  
 Received by:  
 Date/Time: 3-23-16 @ 10:25  
 3.2°C (60°F - IR-3D) with ice, seal intact, cooler in good condition, pH 2  
 FedEx # 8094 5486 8711

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102467  
 Carrier: HAND

# of Samples: 3  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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	3.2
COC is present	True	
COC is filled out in ink and is legible	True	Overwrite present on sample Id ( EB-01)
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

**QUALITY CONTROL DATA**

Workorders: 102383, 102467, 102465, 102474

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QC Batch: 16893

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102383001-003, 102467001-003, 102465001-006, 102474001-008

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.087E-01	1.0	
Radium-228	pCi/l	<7.882E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.787	5.193	108	70-130	
Radium-228	pCi/l	4.893	4.629	95	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	3.64	20	
Radium-228	pCi/l	12.3	20	

---

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102480001	GWA-1, Water	3/23/2016 10:45:00 AM	Ga Tech
102480002	GWA-2, Water	3/23/2016 9:51:00 AM	Ga Tech
102480003	GWA-4, Water	3/23/2016 9:45:00 AM	Ga Tech
102480004	GWC-30, Water	3/23/2016 12:25:00 PM	Ga Tech
102480005	GWC-32, Water	3/23/2016 2:35:00 PM	Ga Tech
102480006	Dup-01, Water	3/23/2016	Ga Tech

**Certification**

Data approved by Gary Smith  
Georgia Power Company

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102480001  
 3/23/2016 10:45:00 AM  
 Water  
 GWA-1

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.15E-01
Ra-228	Ga Tech	pCi/L			6.27E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102480002  
 Collection Date 3/23/2016 9:51:00 AM  
 Sampling Media Water  
 Station GWA-2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.74E-01
Ra-228	Ga Tech	pCi/L			5.29E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102480003  
 Collection Date 3/23/2016 9:45:00 AM  
 Sampling Media Water  
 Station GWA-4

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.49E-01
Ra-228	Ga Tech	pCi/L			6.88E-01



**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102480004  
 3/23/2016 12:25:00 PM  
 Water  
 GWC-30

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.12E-01
Ra-228	Ga Tech	pCi/L			5.93E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102480005  
 Collection Date 3/23/2016 2:35:00 PM  
 Sampling Media Water  
 Station GWC-32

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.49E-01
Ra-228	Ga Tech	pCi/L			6.03E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102480006  
 Collection Date 3/23/2016  
 Sampling Media Water  
 Station Dup-01

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.22E-01
Ra-228	Ga Tech	pCi/L	1.81E+00	+/- 1.42E+00	
Total Isotopic Radium	Ga Tech	pCi/L	1.81E+00		



Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND  
 CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 102480  
 Reviewed By: [Signature]  
 Date: 3-24-16

Page 1 of 1

Sample Shipment Date:<sup>8</sup> 3/23/16  <sup>12</sup> Standard Turnaround Time  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_  
 Sampled By:<sup>10</sup> Kristen Surivido # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

Company:<sup>1</sup> Southern Company Services  
 Report To John Pugh  
 Address:<sup>2</sup> 42 Inverness Center Parkway  
Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley CCR GW

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: 22
		Date	Time					HNO3 N	HNO3 N	Ice I	G-Grid	O-Other	C-Composite	
	GW-C-30	3/23/16	12:25	monitoring well - landfill	GW	GW	3	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech				
	GW-C-32	3/23/16	14:35	monitoring well - landfill	GW	GW	↓							
	GW-C-27	3/23/16		monitoring well - landfill	GW	GW	↓							
	DUP-01	3/23/16		Dupl. cote. L-landfill	GW	GW	3							

Relinquished by:<sup>25</sup> [Signature] Date/Time 3/23/16 17:00  
 Received by:<sup>27</sup> \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_

LAB USE ONLY: Sample Receipt Information:<sup>28</sup>  
42 (SPEL-18-3P), monitoring corder in good condition, seal, PPK  
Heart: Aug 31/2016, Field # 2193 2039 6738

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY  
 COMMENTS

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102480  
 Carrier: FEDEX

# of Samples: 6  
 Tracking No: 803320396738

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

## Receiving Narrative:

No no-conformance notice.

**QUALITY CONTROL DATA**

Workorder: 102474, 102469, 102480, 102483,

QC Batch: 16905

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102474009-010, 102469001-006, 102480001-006, 102483001-006

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.554E-01	1.0	
Radium-228	pCi/l	<6.788E-01	1.0	

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.757	5.09	107	70-130	
Radium-228	pCi/l	4.899	5.33	109	70-130	

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	8.0	20	
Radium-228	pCi/l	0	20	

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102483001	GWC-27, Water	3/23/2016 3:20:00 PM	Ga Tech
102483002	GWC-33, Water	3/23/2016 3:00:00 PM	Ga Tech
102483003	GWC-34, Water	3/24/2016 10:00:00 AM	Ga Tech
102483004	GWC-35, Water	3/24/2016 10:15:00 AM	Ga Tech
102483005	GWC-26, Water	3/24/2016 12:30:00 PM	Ga Tech
102483006	FB-01, Water	3/24/2016 11:40:00 AM	Ga Tech
102483007	DUP-02, Water	3/24/2016	Ga Tech

**Certification**

Data approved by Gary Smith  
Georgia Power Company



**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102483001  
 Collection Date 3/23/2016 3:20:00 PM  
 Sampling Media Water  
 Station GWC-27

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.14E-01
Ra-228	Ga Tech	pCi/L	1.74E+00	+/- 1.49E+00	
Total Isotopic Radium	Ga Tech	pCi/L	1.74E+00		

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102483002  
 3/23/2016 3:00:00 PM  
 Water  
 GWC-33

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.70E-01
Ra-228	Ga Tech	pCi/L			6.44E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102483003  
 Collection Date 3/24/2016 10:00:00 AM  
 Sampling Media Water  
 Station GWC-34

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.56E-01
Ra-228	Ga Tech	pCi/L			6.32E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102483004  
 3/24/2016 10:15:00 AM  
 Water  
 GWC-35

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.47E-01
Ra-228	Ga Tech	pCi/L			3.01E-01

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102483005  
 3/24/2016 12:30:00 PM  
 Water  
 GWC-26

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.45E-01
Ra-228	Ga Tech	pCi/L			5.75E-01

**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location Wansley  
Sample Number 102483006  
Collection Date 3/24/2016 11:40:00 AM  
Sampling Media Water  
Station FB-01

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.11E-01
Ra-228	Ga Tech	pCi/L			6.55E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102483007  
 Collection Date 3/24/2016  
 Sampling Media Water  
 Station DUP-02

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.57E-01
Ra-228	Ga Tech	pCi/L			4.29E-01

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND  
 CHAIN OF CUSTODY RECORD**

LAB USE ONLY  
 Work Order No. 109493  
 Reviewed By: [Signature]  
 11 Page 1 of 1

Sample Shipment Date: 3/24/16 (Delivered by Golden)  12 Standard Turnaround Time  
 Sample Received Date: 3-25-16

Company: Southern Company Services  
 Report To: John Pugh  
 Address: 42 Inverness Center Parkway  
Birmingham, AL 35242  
 Phone/Fax: 205.992.6781  
 Contact: Joju Abraham  
Plant Wansley  
 Project Location: 5  
 Account Number: 6  
 Special Instructions: 7 Wansley CCR GW

Sampled By: Kristen Jiravicko # of Business Days (Rush)   
 (Must be cleared through Env. Lab. Prior to shipment)

Signature: [Signature]  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

17	18	19
Sample Type	Matrix	No. of Containers

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>	Sample Type Key: <sup>22</sup>
		Date	Time					HNO3 N	HNO3 N	Ice		
102483001	GWC-27	3/23/16	1500	Monitoring well - landfill	G	GW	3	X	X	X		22
2	GWC-23	3/23/16	1500	10	G		1					
3	GWC-34	3/24/16	1000		G		1					
4	GWC-35	3/24/16	1015		G		1					
5	GWC-26	3/24/16	1030		G		1					
6	FB-01	3/24/16	1140	Field Blank - landfill	G	W*	1					
7	DUP-08	3/24/16	-	Duplicates - landfill	G	GW	3	X	X	X		

LAB USE ONLY: Sample Receipt Information <sup>28</sup>  
 Relinquished by: [Signature] Date/Time 3/24/16 1510  
 Received by: [Signature] Date/Time 3-24-16 @ 1512  
 Relinquished by: [Signature] Date/Time 3-24-16 @ 1512  
 Received by: [Signature] Date/Time 3-24-16 @ 1512

*Handwritten notes:*  
 3-24-16 11:40 AM  
 5-02 (GWBEL-16-3P) with ice, cooler in good condition, seal, PHZ  
 Hand

Matrix Key: 23  
 S-Said SL-Sludge W-Wipe  
 SW-Surface Water GW-Ground Water  
 WW-Waste Water DW-Drinking Water  
 Preservative Key: 24  
 H-Hydrochloric Acid N-Nitric Acid  
 S-Sulfuric Acid SH-Sodium Hydroxide  
 SB-Sodium Borohydride P-Phosphoric Acid  
 ST-Sodium Thiosulfate U-Ultrapreserved



# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102483  
 Carrier: HAND

# of Samples: 7  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is <6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:**

No no-conformance notice.

**QUALITY CONTROL DATA**

Workorder: 102474, 102469, 102480, 102483,

---

QC Batch: 16905

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102474009-010, 102469001-006, 102480001-006, 102483001-006

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.554E-01	1.0	
Radium-228	pCi/l	<6.788E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.757	5.09	107	70-130	
Radium-228	pCi/l	4.899	5.33	109	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	8.0	20	
Radium-228	pCi/l	0	20	

---

## QUALITY CONTROL DATA

Workorders: 102483, 102485, 102525, 102527, 102539

---

QC Batch: 16915

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102483007, 102485001-007, 102525001-005, 102527001-006, 102539001

---

### METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<3.982E-01	1.0	
Radium-228	pCi/l	<6.692E-01	1.0	

---

### Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.774	6.082	127	70-130	
Radium-228	pCi/l	4.874	5.066	104	70-130	

---

### Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	19.9	20	
Radium-228	pCi/l	7.4	20	

---

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102525001	GWC-5, Water	3/28/2016 12:45:00 PM	Ga Tech
102525002	GWC-6, Water	3/28/2016 2:40:00 PM	Ga Tech
102525003	GWC-25, Water	3/28/2016 2:05:00 PM	Ga Tech
102525004	FB-02, Water	3/28/2016 4:10:00 PM	Ga Tech
102525005	EB-02, Water	3/28/2016 3:50:00 PM	Ga Tech

**Certification**

Data approved by Gary Smith  
Georgia Power Company

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102525001  
 Collection Date 3/28/2016 12:45:00 PM  
 Sampling Media Water  
 Station GWC-5

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.90E-01
Ra-228	Ga Tech	pCi/L			7.14E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102525002  
 3/28/2016 2:40:00 PM  
 Water  
 GWC-6

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.17E-01
Ra-228	Ga Tech	pCi/L			8.31E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102525003  
 Collection Date 3/28/2016 2:05:00 PM  
 Sampling Media Water  
 Station GWC-25

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.48E-01
Ra-228	Ga Tech	pCi/L			7.70E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102525004  
 Collection Date 3/28/2016 4:10:00 PM  
 Sampling Media Water  
 Station FB-02

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.48E-01
Ra-228	Ga Tech	pCi/L			7.75E-01



**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102525005  
 3/28/2016 3:50:00 PM  
 Water  
 EB-02

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.04E-01
Ra-228	Ga Tech	pCi/L			6.42E-01

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

Work Order No. 102585  
 Reviewed By: [Signature]

**LAB USE ONLY**

Page 1 of 1

Sample Shipment Date:<sup>8</sup> 3/28/16  
 Sample Received Date:<sup>9</sup> 3/28/16  
 Sampled By:<sup>10</sup> Kristen Sumrino  
 <sup>12</sup> Standard Turnaround Time  
 # of Business Days (Rush):  
 (Must be cleared through Env. Lab. Prior to shipment)

Company:<sup>1</sup> Southern Company Services  
 Report To: John Pugh  
 Address:<sup>2</sup> 42 Inveness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax:<sup>3</sup> 205.992.6781  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup>  
 Special Instructions:<sup>7</sup> Wansley CCR GW

[Signature]  
 Signature  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>		PRESERVATIVE <sup>20</sup>		Sample Type Key: 22
			HNO3 N	Ice I	HNO3 N	O-Other C-Compatible	
Metals app. III & IV							
CI, F, SO4 EPA 300							
TDS SM2540C							
Radium 226 & 228							
Ga Tech							

Sample Description <sup>16</sup>	Collection <sup>15</sup>		Sample Number <sup>14</sup>	Matrix	No. of Containers	Sample Type
	Date	Time				
Monitoring well-landfill G	3/28/16	1245	GW-C-5	GW	3	G
Monitoring well-landfill	3/28/16	1440	GW-C-6	↓	↓	↓
Monitoring well-landfill	3/28/16	1405	GW-C-25	↓	↓	↓
Field blank-landfill G	3/28/16	1616	FB-02	W	3	W
Equipment blank-landfill G	3/28/16	1550	EB-02	W	3	W

**LAB USE ONLY - Sample Receipt Information<sup>23</sup>**

Relinquished by:<sup>26</sup> [Signature] Date/Time: 3/28/16 1700  
 Received by:<sup>27</sup> [Signature] Date/Time: 3/28/16 10:00  
 Relinquished by: Date/Time: 3/28/16 2:29  
 Received by: Date/Time: 3/28/16 11:14

*3.4°C (66°F) - 18-30°F, with ice cooler in good condition. Seal, PHU2*  
*Fe/Ea # 80332039.6749.*

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102525  
 Carrier: FEDEX

# of Samples: 5  
 Tracking No: 803320396749

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	Overwrite present on collection time on COC.
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Some sample labels have different collector information than what's on COC; samples were logged in based on collector information provided on COC.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:



**QUALITY CONTROL DATA**

Workorders: 102483, 102485, 102525, 102527, 102539

---

QC Batch: 16915

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102483007, 102485001-007, 102525001-005, 102527001-006, 102539001

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<3.982E-01	1.0	
Radium-228	pCi/l	<6.692E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.774	6.082	127	70-130	
Radium-228	pCi/l	4.874	5.066	104	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	19.9	20	
Radium-228	pCi/l	7.4	20	

---

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102567001	GWC-7, Water	3/29/2016 10:15:00 AM	Ga Tech
102567002	GWC-8, Water	3/29/2016 11:10:00 AM	Ga Tech
102567003	GWC-11, Water	3/29/2016 12:40:00 PM	Ga Tech
102567004	GWC-9, Water	3/29/2016 1:30:00 PM	Ga Tech
102567005	GWC-12, Water	3/29/2016 2:10:00 PM	Ga Tech
102567006	EB-03, Water	3/29/2016 4:00:00 PM	Ga Tech

**Certification**

Data approved by Gary Smith  
Georgia Power Company

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102567001  
 Collection Date 3/29/2016 10:15:00 AM  
 Sampling Media Water  
 Station GWC-7

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.95E-01
Ra-228	Ga Tech	pCi/L	1.38E+00	+/- 1.24E+00	
Total Isotopic Radium	Ga Tech	pCi/L	1.38E+00		

**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location  
Sample Number  
Collection Date  
Sampling Media  
Station

Wansley  
102567002  
3/29/2016 11:10:00 AM  
Water  
GWC-8

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.50E-01
Ra-228	Ga Tech	pCi/L			6.94E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102567003  
 Collection Date 3/29/2016 12:40:00 PM  
 Sampling Media Water  
 Station GWC-11

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.44E-01
Ra-228	Ga Tech	pCi/L	2.53E+00	+/- 1.69E+00	
Total Isotopic Radium	Ga Tech	pCi/L	2.53E+00		



**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location Wansley  
Sample Number 102567004  
Collection Date 3/29/2016 1:30:00 PM  
Sampling Media Water  
Station GWC-9

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.38E-01
Ra-228	Ga Tech	pCi/L			3.89E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102567005  
 Collection Date 3/29/2016 2:10:00 PM  
 Sampling Media Water  
 Station GWC-12

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.53E+00	+/- 5.80E-01	
Ra-228	Ga Tech	pCi/L	3.15E+00	+/- 1.51E+00	
Total Isotopic Radium	Ga Tech	pCi/L	4.68E+00		

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102567006  
 3/29/2016 4:00:00 PM  
 Water  
 EB-03

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.79E-01
Ra-228	Ga Tech	pCi/L			5.98E-01



# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102567  
 Carrier: HAND

# of Samples: 6  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

**QUALITY CONTROL DATA**

Workorders: 102539, 102567, 102572, 102580, 102585,

---

QC Batch: 16927

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102539002, 102567001-006, 102572001-005, 102580001-002, 102585001-006

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.563E-01	1.0	
Radium-228	pCi/l	<5.998E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.879	5.462	112	70-130	
Radium-228	pCi/l	4.971	5.734	115	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	9.3	20	
Radium-228	pCi/l	8.1	20	

---

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102572001	GWC-23, Water	3/29/2016 4:15:00 PM	Ga Tech
102572002	GWC-13, Water	3/29/2016 4:40:00 PM	Ga Tech
102572003	GWC-16, Water	3/30/2016 9:50:00 AM	Ga Tech
102572004	FB-03, Water	3/30/2016 11:05:00 AM	Ga Tech
102572005	GWC-14, Water	3/30/2016 10:25:00 AM	Ga Tech

**Certification**

Data approved by Gary Smith  
Georgia Power Company

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102572001  
 3/29/2016 4:15:00 PM  
 Water  
 GWC-23

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.74E-01
Ra-228	Ga Tech	pCi/L			5.44E-01



**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location  
Sample Number  
Collection Date  
Sampling Media  
Station

Wansley  
102572002  
3/29/2016 4:40:00 PM  
Water  
GWC-13

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.93E-01
Ra-228	Ga Tech	pCi/L			6.03E-01

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102572003  
 3/30/2016 9:50:00 AM  
 Water  
 GWC-16

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.18E-01
Ra-228	Ga Tech	pCi/L			6.31E-01

**Georgia Power Company**  
 2480 Maner Road  
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 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102572004  
 Collection Date 3/30/2016 11:05:00 AM  
 Sampling Media Water  
 Station FB-03

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.37E-01
Ra-228	Ga Tech	pCi/L			3.96E-01

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102572005  
 3/30/2016 10:25:00 AM  
 Water  
 GWC-14

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.42E-01
Ra-228	Ga Tech	pCi/L			5.42E-01


# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**LAB USE ONLY**  
 Work Order No. 102572  
 Reviewed By: MSJ 3/30/16  
 Page 1 of 1

Sample Shipment Date: 3/30/16 (Delivered by GoDad) X <sup>12</sup> Standard Turnaround Time  
 Sample Received Date: 3/30/16  
 Sampled By: KY ISRA JUNKO # of Business Days (Rush)       
 (Must be cleared through Env. Lab. Prior to shipment)

Southern Company Services  
 Report To: John Pugh  
 Address: 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax: 205.992.6781  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number:  
 Special Instructions: Wansley CCR GW

Signature:   
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE		ANALYSIS REQUESTED		Sample Type	Matrix	No. of Containers
HNO3	Ice	HNO3	N	N	1	N
EPA 6020 & EPA 7470 Metals app. III & IV Cl, F, SO4 EPA 300 TDS SM2540C Radium 226 & 228 Ga Tech		Matrix Key: 23 S-Solid Sl-Sludge H-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water L-Liquor L-Liquor		Sample Type Key: 22 G-Gab O-Other C-Composite Matrix Key: 23 S-Solid Sl-Sludge H-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water L-Liquor L-Liquor		

LAB USE ONLY LAB ID	Sample Number	Collection		Sample Description	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED		PRESERVATIVE		Sample Type Key: 22 G-Gab O-Other C-Composite
		Date	Time					HNO3	Ice	HNO3	N	
102572.001	GW-C-23	3/29/16	1615	monitoring well - landfill	GW	3	3	X	X	X	X	
↓	GW-C-13	3/29/16	1640			3	3	X	X	X	X	
↓	GW-C-16	3/29/16	0950			3	3	X	X	X	X	
	GW-C-10	3/29/16	1045			3	3	X	X	X	X	
	GW-C-24	3/30/16	0930			3	3	X	X	X	X	
	GW-C-31	3/30/16	1015			3	3	X	X	X	X	
102572.004	FB-03	3/30/16	1105	Field Bank-landfill	WF	3	3	X	X	X	X	
↓	GW-C-14	3/30/16	1005	monitoring well - landfill	GW	3	3	X	X	X	X	

**LAB USE ONLY - Sample Receipt Information**

Relinquished by: [Signature] Date/Time: 3/30/16 1306 4.8°C (66°F) hand, with ice, no seal, cooler in good condition,  
 Received by: [Signature] Date/Time: 3-30-16 @ 1315 pH 2  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

# Sample Receipt Checklist



Client: Wansley # of Samples: 5  
 Workorder No.: 102572 Tracking No:  
 Carrier: HAND

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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	4.8
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Multiple sample collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

**QUALITY CONTROL DATA**

Workorders: 102539, 102567, 102572, 102580, 102585,

---

QC Batch: 16927

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102539002, 102567001-006, 102572001-005, 102580001-002, 102585001-006

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.563E-01	1.0	
Radium-228	pCi/l	<5.998E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.879	5.462	112	70-130	
Radium-228	pCi/l	4.971	5.734	115	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	9.3	20	
Radium-228	pCi/l	8.1	20	

---

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102585001	FB-04, Water	3/31/2016 8:30:00 AM	Ga Tech
102585002	EB-04, Water	3/31/2016 8:30:00 AM	Ga Tech
102585003	DUP-04, Water	3/30/2016	Ga Tech
102585004	GWC-17, Water	3/30/2016 11:30:00 AM	Ga Tech
102585005	GWC-18, Water	3/30/2016 1:30:00 PM	Ga Tech
102585006	DUP-03, Water	3/30/2016	Ga Tech
102585007	GWC-15, Water	3/30/2016 12:05:00 PM	Ga Tech
102585008	GWC-19, Water	3/30/2016 2:45:00 PM	Ga Tech
102585009	GWC-21, Water	3/30/2016 4:30:00 PM	Ga Tech
102585010	GWC-20, Water	3/30/2016 4:35:00 PM	Ga Tech
102585011	GWC-22, Water	3/30/2016 9:50:00 AM	Ga Tech

### Certification

Data approved by Gary Smith  
Georgia Power Company



**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102585001  
 Collection Date 3/31/2016 8:30:00 AM  
 Sampling Media Water  
 Station FB-04

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.00E-01
Ra-228	Ga Tech	pCi/L			7.10E-01

**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location  
Sample Number  
Collection Date  
Sampling Media  
Station

Wansley  
102585002  
3/31/2016 8:30:00 AM  
Water  
EB-04

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.15E-01
Ra-228	Ga Tech	pCi/L			4.74E-01

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102585003  
 3/30/2016  
 Water  
 DUP-04

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.00E-01
Ra-228	Ga Tech	pCi/L			6.64E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102585004  
 Collection Date 3/30/2016 11:30:00 AM  
 Sampling Media Water  
 Station GWC-17

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.94E-01
Ra-228	Ga Tech	pCi/L			5.36E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102585005  
 Collection Date 3/30/2016 1:30:00 PM  
 Sampling Media Water  
 Station GWC-18

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.09E-01
Ra-228	Ga Tech	pCi/L			5.70E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102585006  
 Collection Date 3/30/2016  
 Sampling Media Water  
 Station DUP-03

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.98E-01
Ra-228	Ga Tech	pCi/L			5.32E-01

**Georgia Power Company**  
2480 Maner Road  
Atlanta, Ga. 30339  
(404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

Location Wansley  
Sample Number 102585007  
Collection Date 3/30/2016 12:05:00 PM  
Sampling Media Water  
Station GWC-15

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.33E-01
Ra-228	Ga Tech	pCi/L			5.17E-01

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102585008  
 Collection Date 3/30/2016 2:45:00 PM  
 Sampling Media Water  
 Station GWC-19

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.58E-01
Ra-228	Ga Tech	pCi/L			7.03E-01



**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102585009  
 3/30/2016 4:30:00 PM  
 Water  
 GWC-21

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.35E-01
Ra-228	Ga Tech	pCi/L			5.50E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To** Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location Wansley  
 Sample Number 102585010  
 Collection Date 3/30/2016 4:35:00 PM  
 Sampling Media Water  
 Station GWC-20

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.65E-01
Ra-228	Ga Tech	pCi/L			5.94E-01

**Georgia Power Company**  
 2480 Maner Road  
 Atlanta, Ga. 30339  
 (404) 799-2100 fax (404) 799-2141

**Report To**

Joju Abraham  
 Southern Company Services  
 Earth Sciences & Env Eng  
 42 Inverness Center Parkway  
 Birmingham, AL 35242

Location  
 Sample Number  
 Collection Date  
 Sampling Media  
 Station

Wansley  
 102585011  
 3/30/2016 9:50:00 AM  
 Water  
 GWC-22

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.56E-01
Ra-228	Ga Tech	pCi/L			6.69E-01

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

LAB USE ONLY  
 Work Order No. 102585  
 Reviewed By: [Signature]  
 Page 1 of 1

Sample Shipment Date: 3/31/16 (delivered by Grabber) X 12 Standard Turnaround Time  
 Sample Received Date: [ ] # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Southern Company Services  
 Report To: John Pugh  
 Address: 42 Inverness Center Parkway  
 Birmingham, AL 35242  
 Phone/Fax: 205.992.6781  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number: Wansley CCR GW  
 Special Instructions:

Sampled By: Kristen Jurinko  
 Signature: [Signature]  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number	Collection		Sample Description	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED			PRESERVATIVE			Sample Type Key: 22
		Date	Time					HNO3	Ice	HNO3	G-Grab	C-Composite		
102585001	FB-04	3/31/16	0830	Field Blank - landfill	G	wt	3							
↓ 2	EB-04	3/31/16	0830	Equipment Blank - tank	G	wt	3							
102585003	GW0A-3	3/31/16	0830	Background well - landfill	G	GW	2							
3/31/16	DUP-04	3/30/16	—	Duplicate - landfill	G	GW	3							
3/31/16	GW0C-18	3/30/16	1130	Monitoring well - landfill	G	GW	1							
3/30/16	GW0C-03	3/30/16	1330	Duplicate - landfill	G	GW	1							
3/30/16	GW0C-15	3/30/16	1205	Duplicate - landfill	G	GW	1							
3/30/16	GW0C-19	3/30/16	1445	Monitoring well	G	GW	1							
3/30/16	GW0C-21	3/30/16	1630	Monitoring well	G	GW	1							

LAB USE ONLY - Sample Receipt Information

Relinquished by: [Signature] Date/Time 3/31/16 1305  
 Received by: [Signature] Date/Time 3/31/16 1330  
 Relinquished by: [Signature] Date/Time  
 Received by: [Signature] Date/Time

5. ALL GPCs 1R-3P, with air, cooled in good condition, passed, PHLX



# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 102585  
 Carrier: HAND

# of Samples: 11  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	Multiple collectors listed on sample container labels.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

**QUALITY CONTROL DATA**

Workorders: 102539, 102567, 102572, 102580, 102585,

---

QC Batch: 16927

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102539002, 102567001-006, 102572001-005, 102580001-002, 102585001-006

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.563E-01	1.0	
Radium-228	pCi/l	<5.998E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.879	5.462	112	70-130	
Radium-228	pCi/l	4.971	5.734	115	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	9.3	20	
Radium-228	pCi/l	8.1	20	

---

**QUALITY CONTROL DATA**

Workorders: 102753, 102585, 102604, 102606,

---

QC Batch: 16930

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102753001, 102585007-011, 102604001-003, 102606001-007, 102606009-011

---

**METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.542E-01	1.0	
Radium-228	pCi/l	<5.725E-01	1.0	

---

**Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.954	4.074	82.2	70-130	
Radium-228	pCi/l	5.067	5.878	116	70-130	

---

**Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	24.4	20	
Radium-228	pCi/l	8.3	20	

---



June 15, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 103532 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 103532 - 5037919  
GPC Report Page 1 of 22

### CERTIFICATE OF ANALYSIS

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## SAMPLE SUMMARY

Workorder: 103532 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103532001	GWA-29	N/A	Water	5/19/2016 17:10	5/20/2016 13:30
103532002	GWA-4	N/A	Water	5/19/2016 16:05	5/20/2016 13:30
103532003	GWC-30	N/A	Water	5/20/2016 09:30	5/20/2016 13:30
103532004	GWA-1	N/A	Water	5/20/2016 10:10	5/20/2016 13:30
103532005	FB-01(LF)	N/A	Water	5/20/2016 10:00	5/20/2016 13:30
103532006	EB-01(LF)	N/A	Water	5/20/2016 10:05	5/20/2016 13:30

Report ID: 103532 - 5037919  
GPC Report Page 2 of 22

### CERTIFICATE OF ANALYSIS

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**ANALYTICAL RESULTS**

Workorder: 103532 CCR - Wansley

**Lab ID:** 103532001 **Date Received:** 5/20/2016 13:30  
**Sample ID:** GWA-29 **Date Collected:** 5/19/2016 17:10  
**Sample Description:** Background Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/1/2016 10:30	KLW	6/6/2016 21:16	MRP	
Calcium	5.08	mg/L	0.100	0.500	6/1/2016 10:30	KLW	6/6/2016 21:16	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 09:50	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 09:50	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0415J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Beryllium	0.00188J	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Chromium	0.00684J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Molybdenum	0.00305J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Cadmium	0.000111J	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Antimony	0.00103J	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Barium	0.00265J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:00	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							5/31/2016 20:36	LBB	
Sulfate	10.0	mg/L	0.3000	1.00			5/31/2016 20:36	LBB	
Chloride	1.51	mg/L	0.0400	0.2500			5/31/2016 20:36	LBB	
Fluoride	2.35	mg/L	0.0100	0.3000			5/31/2016 20:36	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	99	mg/L	25	25			5/24/2016 18:35	KLW	

Report ID: 103532 - 5037919  
 GPC Report Page 3 of 22

**CERTIFICATE OF ANALYSIS**

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### ANALYTICAL RESULTS

Workorder: 103532 CCR - Wansley

<b>Lab ID:</b>	103532002	<b>Date Received:</b>	5/20/2016 13:30
<b>Sample ID:</b>	GWA-4	<b>Date Collected:</b>	5/19/2016 16:05
<b>Sample Description</b>	Background Well-Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/1/2016 10:30	KLW	6/6/2016 21:22	MRP	
Calcium	33.6	mg/L	0.100	0.500	6/1/2016 10:30	KLW	6/6/2016 21:22	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 09:58	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Cobalt	0.00361J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Barium	0.110	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:06	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							5/31/2016 21:15	LBB	
Sulfate	10.0	mg/L	0.3000	1.00			5/31/2016 21:15	LBB	
Chloride	13.1	mg/L	0.2000	1.25			6/1/2016 15:10	LBB	
Fluoride	0.0780J	mg/L	0.0100	0.3000			5/31/2016 21:15	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/24/2016 18:35	KLW	

Report ID: 103532 - 5037919  
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**ANALYTICAL RESULTS**

Workorder: 103532 CCR - Wansley

<b>Lab ID:</b>	<b>103532002</b>	<b>Date Received:</b>	<b>5/20/2016 13:30</b>
<b>Sample ID:</b>	<b>GWA-4</b>	<b>Date Collected:</b>	<b>5/19/2016 16:05</b>
<b>Sample Description</b>	<b>Background Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL Prepared	By	Analyzed	By	Qual
TDS	175	mg/L	25	25		5/24/2016 18:35	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103532 CCR - Wansley

**Lab ID:** 103532003 **Date Received:** 5/20/2016 13:30  
**Sample ID:** GWC-30 **Date Collected:** 5/20/2016 09:30  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 10:30	KLW	6/6/2016 21:28	MRP	
Calcium	3.37	mg/L	0.100	0.500	6/1/2016 10:30	KLW	6/6/2016 21:28	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 10:03	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:03	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Barium	0.00703J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:11	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/31/2016 21:53	LBB	
Sulfate	1.31	mg/L	0.3000	1.00			5/31/2016 21:53	LBB	
Chloride	1.40	mg/L	0.0400	0.2500			5/31/2016 21:53	LBB	
Fluoride	0.1040J	mg/L	0.0100	0.3000			5/31/2016 21:53	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	58	mg/L	25	25			5/24/2016 18:35	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103532 CCR - Wansley

<b>Lab ID:</b>	<b>103532004</b>	<b>Date Received:</b>	<b>5/20/2016 13:30</b>
<b>Sample ID:</b>	<b>GWA-1</b>	<b>Date Collected:</b>	<b>5/20/2016 10:10</b>
<b>Sample Description</b>	<b>Background Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							

INORGANICS					6/1/2016 10:30	KLW	6/6/2016 21:34	MRP	
Calcium	0.784	mg/L	0.100	0.500	6/1/2016 10:30	KLW	6/6/2016 21:34	MRP	

Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							

TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 10:06	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:06	WCM	

Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							

Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Barium	0.00960J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:16	ELS	

Analysis Desc: EPA 300		Analytical Method: EPA 300							
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TOTAL NUTRIENTS							6/1/2016 01:05	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/1/2016 01:05	LBB	
Chloride	1.84	mg/L	0.0400	0.2500			6/1/2016 01:05	LBB	
Fluoride	0.0200J	mg/L	0.0100	0.3000			6/1/2016 01:05	LBB	

Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
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WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	<25	mg/L	25	25			5/24/2016 18:35	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103532 CCR - Wansley

**Lab ID:** 103532005 **Date Received:** 5/20/2016 13:30  
**Sample ID:** FB-01(LF) **Date Collected:** 5/20/2016 10:00  
**Sample Description:** Field Blank-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 10:30	KLW	6/6/2016 21:40	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/1/2016 10:30	KLW	6/6/2016 21:40	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 10:08	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:08	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:42	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/1/2016 01:43	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/1/2016 01:43	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/1/2016 01:43	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/1/2016 01:43	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	<25	mg/L	25	25			5/24/2016 18:35	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103532 CCR - Wansley

<b>Lab ID:</b>	<b>103532006</b>	<b>Date Received:</b>	<b>5/20/2016 13:30</b>
<b>Sample ID:</b>	<b>EB-01(LF)</b>	<b>Date Collected:</b>	<b>5/20/2016 10:05</b>
<b>Sample Description</b>	<b>Equipment Blank-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/1/2016 10:30	KLW	6/6/2016 21:46	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/1/2016 10:30	KLW	6/6/2016 21:46	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 10:11	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:11	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/26/2016 21:47	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/1/2016 03:39	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/1/2016 03:39	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/1/2016 03:39	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/1/2016 03:39	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	<25	mg/L	25	25			5/24/2016 18:35	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 103532 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

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QC Batch:	GRAV/2877	Analysis Method:	SM 2540C			
QC Batch Method:	SM 2540C					
Associated Lab Samples:	103532001	103532002	103532003	103532004	103532005	103532006
	103533001	103533002	103533003	103533004	103533005	103533006

---

METHOD BLANK: 106282

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

---

LABORATORY CONTROL SAMPLE: 106285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	240	99.6	90-110	

---

SAMPLE DUPLICATE: 106283 Original: 103532001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	99	96	3.1	20	

---

SAMPLE DUPLICATE: 106284 Original: 103533006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	168	168	0	20	

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

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QC Batch: DIGM/4327 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 103520001 103520002 103520003 103520004 103520005 103532001  
 103532002 103532003 103532004 103532005 103532006

---

METHOD BLANK: 106300

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

---

LABORATORY CONTROL SAMPLE: 106301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.15	103	80-120

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106302 106303 Original: 103520004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	15.8	5	21.1	21.2	106	109	75-125	2.8	20	

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

QC Batch:	DIGM/4328		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103520001	103520002	103520003	103520004	103520005	103532001
	103532002	103532003	103532004	103532005	103532006	

METHOD BLANK: 106304

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 106305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Lithium	mg/L	0.2	0.199	99.5	80-120
Beryllium	mg/L	0.1	0.111	111	80-120
Boron	mg/L	0.3	0.299	99.6	80-120
Chromium	mg/L	0.1	0.118	118	80-120
Cobalt	mg/L	0.1	0.118	118	80-120
Arsenic	mg/L	0.1	0.116	116	80-120
Selenium	mg/L	0.1	0.120	120	80-120
Molybdenum	mg/L	0.1	0.116	116	80-120
Cadmium	mg/L	0.1	0.114	114	80-120
Antimony	mg/L	0.1	0.116	116	80-120
Barium	mg/L	0.1	0.118	118	80-120
Thallium	mg/L	0.1	0.104	104	80-120
Lead	mg/L	0.1	0.109	109	80-120

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106306 106307 Original: 103520002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.00139	0.2	0.191	0.187	94.9	92.7	75-125	2.3	20	
Beryllium	mg/L	4.3e-005	0.1	0.0946	0.0928	94.6	92.7	75-125	2	20	
Boron	mg/L	0.153	0.3	0.433	0.432	93.3	93.1	75-125	0.21	20	
Chromium	mg/L	0.00026	0.1	0.103	0.103	103	103	75-125	0	20	
Cobalt	mg/L	0.00086	0.1	0.105	0.103	104	103	75-125	0.97	20	
Arsenic	mg/L	8.3e-005	0.1	0.103	0.104	103	104	75-125	0.97	20	
Selenium	mg/L	0.00017	0.1	0.105	0.103	105	103	75-125	1.9	20	
Molybdenum	mg/L	0.00028	0.1	0.106	0.105	106	104	75-125	1.9	20	
Cadmium	mg/L	6.9e-005	0.1	0.102	0.101	102	101	75-125	0.99	20	
Antimony	mg/L	0.00010	0.1	0.103	0.103	103	103	75-125	0	20	
Barium	mg/L	0.222	0.1	0.335	0.333	113	111	75-125	1.8	20	
Thallium	mg/L	3.5e-005	0.1	0.0915	0.0911	91.5	91.1	75-125	0.44	20	
Lead	mg/L	4.2e-005	0.1	0.0961	0.0954	96.1	95.4	75-125	0.73	20	

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

QC Batch:	IC/3036	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	103518002	103518003	103520001	103520002	103520003	103520004
	103520005	103532001	103532002	103532003	103532004	103532005
	103532006	103563001	103563002			

METHOD BLANK: 106368

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106378

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106634

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	

METHOD BLANK: 106670

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5010	100	90-110	

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

LABORATORY CONTROL SAMPLE: 106369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.02	100	90-110	
Fluoride	mg/L	0.5	0.5320	106	90-110	

LABORATORY CONTROL SAMPLE: 106371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.7	104	90-110	
Fluoride	mg/L	6.83	6.90	101	90-110	

LABORATORY CONTROL SAMPLE: 106379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5010	100	90-110	
Sulfate	mg/L	5	5.04	101	90-110	
Fluoride	mg/L	0.5	0.5350	107	90-110	

LABORATORY CONTROL SAMPLE: 106635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5020	100	90-110	

LABORATORY CONTROL SAMPLE: 106671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4990	99.8	90-110	
Sulfate	mg/L	5	5.01	100	90-110	
Fluoride	mg/L	0.5	0.5320	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106374                      106375                      Original: 103518002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.499	1	1.52	1.52	102	102	90-110	0	10	

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106380                      106381                      Original: 103532005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.005	1	1.02	1.01	101	101	90-110	0	10	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106382                      106383                      Original: 103532005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.05	1.05	105	105	90-110	0	10	

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106384                      106385                      Original: 103532005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.2	10.2	102	102	90-110	0	10	

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106628                      106629                      Original: 103532003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.4	1	2.37	2.37	96.5	96.7	90-110	1	10	

---

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**QUALITY CONTROL DATA**

Workorder: 103532 CCR - Wansley

QC Batch:	HGPR/1662		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103532001	103532002	103532003	103532004	103532005	103532006
	103563001	103563002	103563003	103563004	103563005	103563006
	103563007	103563008	103563009			

METHOD BLANK: 106477

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Mercury	mg/L	<0.000500	0.000500

METHOD BLANK: 106483

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Mercury	mg/L	<0.000500	0.000500

LABORATORY CONTROL SAMPLE: 106478

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Mercury	mg/L	0.002	0.00199	100	80-120

LABORATORY CONTROL SAMPLE: 106479

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Mercury	mg/L	0.0122	0.0123	101	80-120

LABORATORY CONTROL SAMPLE: 106484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Mercury	mg/L	0.002	0.00197	98	80-120

Report ID: 103532 - 5037919  
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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103532 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103532001	GWA-29	SM 2540C	GRAV/2877		
103532002	GWA-4	SM 2540C	GRAV/2877		
103532003	GWC-30	SM 2540C	GRAV/2877		
103532004	GWA-1	SM 2540C	GRAV/2877		
103532005	FB-01(LF)	SM 2540C	GRAV/2877		
103532006	EB-01(LF)	SM 2540C	GRAV/2877		
103532001	GWA-29	EPA 3005A	DIGM/4327	EPA 6010D	ICP/5023
103532002	GWA-4	EPA 3005A	DIGM/4327	EPA 6010D	ICP/5023
103532003	GWC-30	EPA 3005A	DIGM/4327	EPA 6010D	ICP/5023
103532004	GWA-1	EPA 3005A	DIGM/4327	EPA 6010D	ICP/5023
103532005	FB-01(LF)	EPA 3005A	DIGM/4327	EPA 6010D	ICP/5023
103532006	EB-01(LF)	EPA 3005A	DIGM/4327	EPA 6010D	ICP/5023
103532001	GWA-29	EPA 3005A	DIGM/4328	EPA 6020B	ICPM/1074
103532002	GWA-4	EPA 3005A	DIGM/4328	EPA 6020B	ICPM/1074
103532003	GWC-30	EPA 3005A	DIGM/4328	EPA 6020B	ICPM/1074
103532004	GWA-1	EPA 3005A	DIGM/4328	EPA 6020B	ICPM/1074
103532005	FB-01(LF)	EPA 3005A	DIGM/4328	EPA 6020B	ICPM/1074
103532006	EB-01(LF)	EPA 3005A	DIGM/4328	EPA 6020B	ICPM/1074
103532001	GWA-29	EPA 300	IC/3036		
103532002	GWA-4	EPA 300	IC/3036		
103532003	GWC-30	EPA 300	IC/3036		
103532004	GWA-1	EPA 300	IC/3036		
103532005	FB-01(LF)	EPA 300	IC/3036		
103532006	EB-01(LF)	EPA 300	IC/3036		
103532001	GWA-29	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103532002	GWA-4	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103532003	GWC-30	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103532004	GWA-1	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103532005	FB-01(LF)	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103532 CCR - Wansley

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103532006	EB-01(LF)	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846

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## LABORATORY CERTIFICATIONS

Workorder: 103532 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

LAB USE ONLY  
 Work Order No. 103532  
 Reviewed By: [Signature]  
 11 Page 1 of 1

Sample Shipment Date: 5/20/16 (delivered by Goiber)  
 Sample Received Date: 5/23/16  
 <sup>12</sup> Standard Turnaround Time

Company: <sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address: <sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax: <sup>3</sup> 404-506-7239  
 Contact: <sup>4</sup> Joju Abraham  
 Project Location: <sup>5</sup> Plant Wansley  
 Account Number: <sup>6</sup> LF 787 5/20/16  
 Special Instructions: <sup>7</sup> Wansley AP CCR GW

Sampled By: <sup>10</sup> Kristen Jurinko, Chris Gargan, Ben Hodges  
 # of Business Days (Rush)  (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>		PRESERVATIVE <sup>20</sup>		Sample Type Key: <sup>22</sup> G-Grab O-Other C-Composite	Matrix Key: <sup>23</sup> S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water	Preservative Key: <sup>24</sup> H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SS-Sodium Sulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved	LAB USE ONLY <sup>25</sup> Comments	
		Date	Time					HNO3 N	Ice I	HNO3 N	HNO3 N					
103532001	GWA-29	5/19/16	1710	Back-ground well - landfill	G	GW	3	Metals app. III & IV EPA 6020 & EPA 7470	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech					CG	
2	GWA-4	5/19/16	1005	↓												BHKG
3	GW-C-30	5/20/16	0930	Monitoring well - landfill												KNT
4	GWA-1	5/20/16	1010	Back-ground well - landfill												CG
5	FB-01(LF)	5/20/16	1000	Field Blank - landfill												LBH
6	FB-01(LF)	5/20/16	1005	Equipment Blank - landfill												↓

LAB USE ONLY; Sample Receipt Information <sup>26</sup>  
 Relinquished by: <sup>26</sup> [Signature] Date/Time 5/20/16 1330  
 Received by: <sup>27</sup> [Signature] Date/Time 5-20-16 @ 1330  
 Relinquished by: Date/Time  
 Received by: Date/Time

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 103532  
 Carrier: HAND

# of Samples: 6  
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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	5.4
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	Sample collection date on metals analysis sample container does not match COC for sample number GWA-4.
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:



June 15, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 103567 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 103567 - 5039781  
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## SAMPLE SUMMARY

Workorder: 103567 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103567001	GWC-34	N/A	Water	5/23/2016 12:45	5/24/2016 11:10
103567002	GWC-35	N/A	Water	5/23/2016 13:45	5/24/2016 11:10
103567003	FD-01(LF)	N/A	Water	5/23/2016 00:00	5/24/2016 11:10
103567004	FD-02(LF)	N/A	Water	5/23/2016 00:00	5/24/2016 11:10
103567005	GWA-28	N/A	Water	5/23/2016 13:30	5/24/2016 11:10
103567006	GWC-5	N/A	Water	5/23/2016 15:45	5/24/2016 11:10

Report ID: 103567 - 5039781  
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### ANALYTICAL RESULTS

Workorder: 103567 CCR - Wansley

<b>Lab ID:</b>	103567001	<b>Date Received:</b>	5/24/2016 11:10
<b>Sample ID:</b>	GWC-34	<b>Date Collected:</b>	5/23/2016 12:45
<b>Sample Description</b>	Monitoring Well-Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 12:03	MRP	
Calcium	2.82	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 12:03	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:06	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Barium	0.0119	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 11:59	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 06:54	LBB	
Sulfate	1.44	mg/L	0.3000	1.00			6/7/2016 06:54	LBB	
Chloride	1.19	mg/L	0.0400	0.2500			6/7/2016 06:54	LBB	
Fluoride	0.1550J	mg/L	0.0100	0.3000			6/7/2016 06:54	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/25/2016 17:33	KLW	

Report ID: 103567 - 5039781  
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## ANALYTICAL RESULTS

Workorder: 103567 CCR - Wansley

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<b>Lab ID:</b>	<b>103567001</b>	<b>Date Received:</b>	<b>5/24/2016 11:10</b>
<b>Sample ID:</b>	<b>GWC-34</b>	<b>Date Collected:</b>	<b>5/23/2016 12:45</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

---

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	61	mg/L	25	25			5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

**Lab ID:** 103567002 **Date Received:** 5/24/2016 11:10  
**Sample ID:** GWC-35 **Date Collected:** 5/23/2016 13:45  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 12:09	MRP	
Calcium	1.97	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 12:09	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:14	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Barium	0.0221	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:04	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 07:24	LBB	
Sulfate	2.76	mg/L	0.3000	1.00			6/7/2016 07:24	LBB	
Chloride	4.19	mg/L	0.0800	0.5000			6/8/2016 23:22	LBB	
Fluoride	0.0343J	mg/L	0.0100	0.3000			6/7/2016 07:24	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

<b>Lab ID:</b>	<b>103567002</b>	<b>Date Received:</b>	<b>5/24/2016 11:10</b>
<b>Sample ID:</b>	<b>GWC-35</b>	<b>Date Collected:</b>	<b>5/23/2016 13:45</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	48	mg/L	25	25			5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

**Lab ID:** 103567003 **Date Received:** 5/24/2016 11:10  
**Sample ID:** FD-01(LF) **Date Collected:** 5/23/2016 00:00  
**Sample Description:** Field Duplicate–Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 12:39	MRP	
Calcium	2.70	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 12:39	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:19	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Barium	0.0120	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:09	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 07:54	LBB	
Sulfate	1.45	mg/L	0.3000	1.00			6/7/2016 07:54	LBB	
Chloride	1.19	mg/L	0.0400	0.2500			6/7/2016 07:54	LBB	
Fluoride	0.1569J	mg/L	0.0100	0.3000			6/7/2016 07:54	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/25/2016 17:33	KLW	

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## ANALYTICAL RESULTS

Workorder: 103567 CCR - Wansley

<b>Lab ID:</b>	103567003	<b>Date Received:</b>	5/24/2016 11:10
<b>Sample ID:</b>	FD-01(LF)	<b>Date Collected:</b>	5/23/2016 00:00
<b>Sample Description</b>	Field Duplicate–Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	53	mg/L	25	25			5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

<b>Lab ID:</b>	<b>103567004</b>	<b>Date Received:</b>	<b>5/24/2016 11:10</b>
<b>Sample ID:</b>	<b>FD-02(LF)</b>	<b>Date Collected:</b>	<b>5/23/2016 00:00</b>
<b>Sample Description</b>	<b>Field Duplicate–Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 12:45	MRP	
Calcium	2.03	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 12:45	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:22	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Barium	0.0213	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:14	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 08:24	LBB	
Sulfate	2.70	mg/L	0.3000	1.00			6/7/2016 08:24	LBB	
Chloride	4.05	mg/L	0.0800	0.5000			6/8/2016 23:52	LBB	
Fluoride	0.0337J	mg/L	0.0100	0.3000			6/7/2016 08:24	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

<b>Lab ID:</b>	<b>103567004</b>	<b>Date Received:</b>	<b>5/24/2016 11:10</b>
<b>Sample ID:</b>	<b>FD-02(LF)</b>	<b>Date Collected:</b>	<b>5/23/2016 00:00</b>
<b>Sample Description</b>	<b>Field Duplicate–Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	32	mg/L	25	25			5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

**Lab ID:** 103567005 **Date Received:** 5/24/2016 11:10  
**Sample ID:** GWA-28 **Date Collected:** 5/23/2016 13:30  
**Sample Description:** Background Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 12:51	MRP	
Calcium	2.81	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 12:51	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:24	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0210J	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Molybdenum	0.00850J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Antimony	0.00103J	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:19	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 08:54	LBB	
Sulfate	1.44	mg/L	0.3000	1.00			6/7/2016 08:54	LBB	
Chloride	1.33	mg/L	0.0400	0.2500			6/7/2016 08:54	LBB	
Fluoride	1.62	mg/L	0.0100	0.3000			6/7/2016 08:54	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/25/2016 17:33	KLW	

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## ANALYTICAL RESULTS

Workorder: 103567 CCR - Wansley

<b>Lab ID:</b>	103567005	<b>Date Received:</b>	5/24/2016 11:10
<b>Sample ID:</b>	GWA-28	<b>Date Collected:</b>	5/23/2016 13:30
<b>Sample Description</b>	Background Well-Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	92	mg/L	25	25			5/25/2016 17:33	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103567 CCR - Wansley

**Lab ID:** 103567006 **Date Received:** 5/24/2016 11:10  
**Sample ID:** GWC-5 **Date Collected:** 5/23/2016 15:45  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 12:57	MRP	
Calcium	26.3	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 12:57	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:43	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Cobalt	0.00701J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Molybdenum	0.00206J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Barium	0.0191	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 12:35	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 09:24	LBB	
Sulfate	21.0	mg/L	0.3000	1.00			6/7/2016 09:24	LBB	
Chloride	10.4	mg/L	0.2000	1.25			6/9/2016 00:22	LBB	
Fluoride	0.1022J	mg/L	0.0100	0.3000			6/7/2016 09:24	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/25/2016 17:33	KLW	

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## ANALYTICAL RESULTS

Workorder: 103567 CCR - Wansley

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<b>Lab ID:</b>	<b>103567006</b>	<b>Date Received:</b>	<b>5/24/2016 11:10</b>
<b>Sample ID:</b>	<b>GWC-5</b>	<b>Date Collected:</b>	<b>5/23/2016 15:45</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	189	mg/L	25	25			5/25/2016 17:33	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 103567 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

QC Batch:	IC/3037	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	103563003	103563004	103563005	103563006	103563007	103563008
	103563009	103563010	103563011	103563012	103563013	103563014
	103567001	103567002	103567003	103567004	103567005	103567006
	103584001					

METHOD BLANK: 106396

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106754

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106389

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.4	101	90-110	
Fluoride	mg/L	6.83	6.70	98	90-110	

LABORATORY CONTROL SAMPLE: 106397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4655	93.1	90-110	
Sulfate	mg/L	5	4.90	97.9	90-110	
Fluoride	mg/L	0.5	0.5194	104	90-110	

LABORATORY CONTROL SAMPLE: 106755

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4766	95.3	90-110	

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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

LABORATORY CONTROL SAMPLE: 106755

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.90	98	90-110	
Fluoride	mg/L	0.5	0.5231	105	90-110	

LABORATORY CONTROL SAMPLE: 106756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	6.95	6.92	99.6	90-110	

LABORATORY CONTROL SAMPLE: 106757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106398                      106399                      Original: 103563013

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	94	100	194	195	99.7	101	90-110	1.3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106400                      106404                      Original: 103563013

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.06	1.05	106	105	90-110	0.95	10	

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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

QC Batch:	GRAV/2878		Analysis Method:	SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	103563001	103563002	103563003	103563004	103563005	103563006
	103563007	103563008	103563009	103563010	103563011	103563012
	103563013	103563014	103567001	103567002	103567003	103567004
	103567005	103567006				

METHOD BLANK: 106427

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 106430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	240	99.6	90-110	

SAMPLE DUPLICATE: 106428 Original: 103563002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	1060	1070	0.75	20	

SAMPLE DUPLICATE: 106429 Original: 103567002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	48	47	2.1	20	

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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

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QC Batch:	HGPR/1663	Analysis Method:		EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103563010	103563011	103563012	103563013	103563014	103567001
	103567002	103567003	103567004	103567005	103567006	103584001

---

METHOD BLANK: 106531

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 106537

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Mercury	mg/L	0.002	0.00204	102	80-120	

LABORATORY CONTROL SAMPLE: 106533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Mercury	mg/L	0.0122	0.0126	103	80-120	

LABORATORY CONTROL SAMPLE: 106538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Mercury	mg/L	0.002	0.00209	104	80-120	

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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

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QC Batch: DIGM/4336 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 103567001 103567002 103567003 103567004 103567005 103567006  
 103584001

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METHOD BLANK: 106558

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

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LABORATORY CONTROL SAMPLE: 106559

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.03	101	80-120

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106560 106561 Original: 103621002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	13	5	18.0	17.6	101	92.3	75-125	9	20	

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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

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QC Batch: DIGM/4337 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 103567001 103567002 103567003 103567004 103567005 103567006  
 103584001

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METHOD BLANK: 106562

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 106563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Lithium	mg/L	0.2	0.199	99.4	80-120
Beryllium	mg/L	0.1	0.0964	96.4	80-120
Boron	mg/L	0.3	0.296	98.6	80-120
Chromium	mg/L	0.1	0.0971	97.1	80-120
Cobalt	mg/L	0.1	0.100	100	80-120
Arsenic	mg/L	0.1	0.0918	91.8	80-120
Selenium	mg/L	0.1	0.0897	89.7	80-120
Molybdenum	mg/L	0.1	0.0938	93.8	80-120
Cadmium	mg/L	0.1	0.0986	98.6	80-120
Antimony	mg/L	0.1	0.0937	93.7	80-120
Barium	mg/L	0.1	0.101	101	80-120
Thallium	mg/L	0.1	0.0967	96.7	80-120
Lead	mg/L	0.1	0.0951	95.1	80-120

Report ID: 103567 - 5039781  
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**QUALITY CONTROL DATA**

Workorder: 103567 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106564                      106565                      Original: 103567005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.021	0.2	0.214	0.215	96.4	97.1	75-125	0.72	20	
Beryllium	mg/L	0.00038	0.1	0.0955	0.0951	95.1	94.7	75-125	0.42	20	
Boron	mg/L	0.0035	0.3	0.295	0.297	97	97.9	75-125	0.92	20	
Chromium	mg/L	0.00051	0.1	0.102	0.103	102	102	75-125	0	20	
Cobalt	mg/L	3.1e-005	0.1	0.102	0.101	102	101	75-125	0.99	20	
Arsenic	mg/L	6e-005	0.1	0.0992	0.100	99.1	100	75-125	0.9	20	
Selenium	mg/L	0.00028	0.1	0.0994	0.0994	99.1	99.1	75-125	0	20	
Molybdenum	mg/L	0.0085	0.1	0.110	0.112	102	103	75-125	0.98	20	
Cadmium	mg/L	6.8e-005	0.1	0.101	0.101	100	101	75-125	1	20	
Antimony	mg/L	0.00103	0.1	0.102	0.102	101	101	75-125	0	20	
Barium	mg/L	0.00102	0.1	0.106	0.107	105	106	75-125	0.95	20	
Thallium	mg/L	8e-006	0.1	0.0976	0.0978	97.6	97.8	75-125	0.2	20	
Lead	mg/L	6.7e-005	0.1	0.0978	0.0984	97.7	98.3	75-125	0.61	20	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103567 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103567001	GWC-34	EPA 300	IC/3037		
103567002	GWC-35	EPA 300	IC/3037		
103567003	FD-01(LF)	EPA 300	IC/3037		
103567004	FD-02(LF)	EPA 300	IC/3037		
103567005	GWA-28	EPA 300	IC/3037		
103567006	GWC-5	EPA 300	IC/3037		
103567001	GWC-34	SM 2540C	GRAV/2878		
103567002	GWC-35	SM 2540C	GRAV/2878		
103567003	FD-01(LF)	SM 2540C	GRAV/2878		
103567004	FD-02(LF)	SM 2540C	GRAV/2878		
103567005	GWA-28	SM 2540C	GRAV/2878		
103567006	GWC-5	SM 2540C	GRAV/2878		
103567001	GWC-34	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103567002	GWC-35	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103567003	FD-01(LF)	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103567004	FD-02(LF)	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103567005	GWA-28	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103567006	GWC-5	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103567001	GWC-34	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103567002	GWC-35	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103567003	FD-01(LF)	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103567004	FD-02(LF)	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103567005	GWA-28	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103567006	GWC-5	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103567001	GWC-34	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103567002	GWC-35	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103567003	FD-01(LF)	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103567004	FD-02(LF)	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103567005	GWA-28	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103567 CCR - Wansley

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103567006	GWC-5	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080

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## LABORATORY CERTIFICATIONS

Workorder: 103567 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 103567  
 Reviewed By: [Signature]  
 11 Page 1 of 1

Sample Shipment Date:<sup>8</sup> 5/23/16  Standard Turnaround Time

Sample Received Date:<sup>9</sup> \_\_\_\_\_ # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

Company:<sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley LF CCR GW

Sampled By:<sup>10</sup> Kristen Jurinko, Chris Gargan, Ben Hodges  
[Signature]  
 Signature  
 Authorization to subcontract analysis will be assumed acceptable by customer, unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: <sup>22</sup>
		Date	Time					EPA 6020 & EPA 7470 Metals app. III & IV	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech	HNO3 N	Ice I	HNO3 N	
103567001	GWC-34	5/23/16	1245	Monitoring well - Landfill	G	GW	3	X	X	X	X			KNJ
2	GWC-35	5/23/16	1345	Field Duplicate - Landfill										BH
3	FD-01 (LF)	5/23/16	—											KNJ
4	FD-02 (LF)	5/23/16	—											BH
5	GWA-28	5/23/16	1330	Background well - Landfill										CG
6	GWC-5	5/23/16	1545	Monitoring well - Landfill										KNJ

LAB USE ONLY: Sample Receipt Information <sup>28</sup>			
Relinquished by: <sup>26</sup>	<u>[Signature]</u>	Date/Time	<u>5/23/16 1730</u>
Received by: <sup>27</sup>	<u>[Signature]</u>	Date/Time	<u>5/23/16 @ 11:40</u>
Relinquished by:		Date/Time	
Received by:		Date/Time	

with ice, cooler in good condition, see PHL 2.  
 FedEx # 80948486 864

# Sample Receipt Checklist

**Client:** Wansley  
**Workorder No.:** 103567  
**Carrier:** FEDEX

**# of Samples:** 6  
**Tracking No:**

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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	3.6
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:**

No non-conformance noticed.

June 17, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 103621 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Bidy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 103621 - 5040204  
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## SAMPLE SUMMARY

Workorder: 103621 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103621001	GWA-2	N/A	Water	5/24/2016 10:15	5/25/2016 10:30
103621002	GWC-6	N/A	Water	5/24/2016 10:09	5/25/2016 10:30
103621003	GWC-33	N/A	Water	5/24/2016 11:50	5/25/2016 10:30
103621004	GWC-32	N/A	Water	5/24/2016 09:55	5/25/2016 10:30
103621005	GWC-27	N/A	Water	5/24/2016 12:45	5/25/2016 10:30
103621006	GWC-7	N/A	Water	5/24/2016 12:24	5/25/2016 10:30
103621007	GWC-9	N/A	Water	5/24/2016 14:15	5/25/2016 10:30
103621008	GWC-8	N/A	Water	5/24/2016 13:40	5/25/2016 10:30
103621009	FB-02 (LF)	N/A	Water	5/24/2016 15:05	5/25/2016 10:30
103621010	EB-02 (LF)	N/A	Water	5/24/2016 15:10	5/25/2016 10:30

Report ID: 103621 - 5040204  
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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

**Lab ID:** 103621001 **Date Received:** 5/25/2016 10:30  
**Sample ID:** GWA-2 **Date Collected:** 5/24/2016 10:15  
**Sample Description:** Background Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 13:09	MRP	
Calcium	3.51	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 13:09	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 13:08	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/6/2016 12:11	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Barium	0.00761J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:05	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 00:55	LBB	
Sulfate	0.5760J	mg/L	0.3000	1.00			6/7/2016 00:55	LBB	
Chloride	4.52	mg/L	0.0800	0.5000			6/8/2016 15:51	LBB	
Fluoride	0.0230J	mg/L	0.0100	0.3000			6/7/2016 00:55	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/26/2016 17:40	KLW	

Report ID: 103621 - 5040204  
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## ANALYTICAL RESULTS

Workorder: 103621 CCR - Wansley

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<b>Lab ID:</b>	<b>103621001</b>	<b>Date Received:</b>	<b>5/25/2016 10:30</b>
<b>Sample ID:</b>	<b>GWA-2</b>	<b>Date Collected:</b>	<b>5/24/2016 10:15</b>
<b>Sample Description</b>	<b>Background Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

---

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	51	mg/L	25	25			5/26/2016 17:40	KLW	

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### ANALYTICAL RESULTS

Workorder: 103621 CCR - Wansley

<b>Lab ID:</b>	103621002	<b>Date Received:</b>	5/25/2016 10:30
<b>Sample ID:</b>	GWC-6	<b>Date Collected:</b>	5/24/2016 10:09
<b>Sample Description</b>	Monitoring Well-Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 13:15	MRP	
Calcium	13.0	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 13:15	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 13:10	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/6/2016 12:16	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Cobalt	0.00926J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Barium	0.0520	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:11	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 01:34	LBB	
Sulfate	12.8	mg/L	0.3000	1.00			6/7/2016 01:34	LBB	
Chloride	6.21	mg/L	0.2000	1.25			6/8/2016 16:29	LBB	
Fluoride	0.0810J	mg/L	0.0100	0.3000			6/7/2016 01:34	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/26/2016 17:40	KLW	

Report ID: 103621 - 5040204  
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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

<b>Lab ID:</b>	<b>103621002</b>	<b>Date Received:</b>	<b>5/25/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-6</b>	<b>Date Collected:</b>	<b>5/24/2016 10:09</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	115	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

**Lab ID:** 103621003 **Date Received:** 5/25/2016 10:30  
**Sample ID:** GWC-33 **Date Collected:** 5/24/2016 11:50  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 13:33	MRP	
Calcium	9.38	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 13:33	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 13:13	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Beryllium	0.000650J	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/6/2016 12:21	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Cobalt	0.0136	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Barium	0.00573J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Thallium	0.000242J	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:16	ELS	

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### ANALYTICAL RESULTS

Workorder: 103621 CCR - Wansley

<b>Lab ID:</b>	103621004	<b>Date Received:</b>	5/25/2016 10:30
<b>Sample ID:</b>	GWC-32	<b>Date Collected:</b>	5/24/2016 09:55
<b>Sample Description</b>	Monitoring Well-Landfill	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:03	MRP	
Calcium	6.58	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 14:03	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 13:16	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Beryllium	0.00134J	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:21	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 02:12	LBB	
Sulfate	13.5	mg/L	0.3000	1.00			6/7/2016 02:12	LBB	
Chloride	1.10	mg/L	0.0400	0.2500			6/7/2016 02:12	LBB	
Fluoride	2.71	mg/L	0.0100	0.3000			6/7/2016 02:12	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

<b>Lab ID:</b>	<b>103621004</b>	<b>Date Received:</b>	<b>5/25/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-32</b>	<b>Date Collected:</b>	<b>5/24/2016 09:55</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	83	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

**Lab ID:** 103621005 **Date Received:** 5/25/2016 10:30  
**Sample ID:** GWC-27 **Date Collected:** 5/24/2016 12:45  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:09	MRP	
Calcium	0.745	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 14:09	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 13:49	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 13:49	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Cobalt	0.00240J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Barium	0.00672J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:26	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 02:51	LBB	
Sulfate	0.5980J	mg/L	0.3000	1.00			6/7/2016 02:51	LBB	
Chloride	1.08	mg/L	0.0400	0.2500			6/7/2016 02:51	LBB	
Fluoride	0.1980J	mg/L	0.0100	0.3000			6/7/2016 02:51	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/26/2016 17:40	KLW	
TDS	34	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

**Lab ID:** 103621006 **Date Received:** 5/25/2016 10:30  
**Sample ID:** GWC-7 **Date Collected:** 5/24/2016 12:24  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D Preparation Method: EPA 3005A  
 Analytical Method: EPA 6010D

INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:15	MRP	
Calcium	63.2	mg/L	1.00	5.00	5/31/2016 10:30	KLW	6/7/2016 14:15	MRP	

Analysis Desc: EPA 7470A Preparation Method: EPA 7470A  
 Analytical Method: EPA 7470A

TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 13:57	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 13:57	WCM	

Analysis Desc: EPA 6020B Preparation Method: EPA 3005A  
 Analytical Method: EPA 6020B

Lithium	0.0137J	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Cobalt	0.00462J	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Barium	0.0996	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:31	ELS	

Analysis Desc: EPA 300 Analytical Method: EPA 300

TOTAL NUTRIENTS							6/7/2016 03:29	LBB	
Sulfate	85.8	mg/L	7.50	25.0			6/8/2016 17:08	LBB	
Chloride	32.8	mg/L	1.00	6.25			6/8/2016 17:08	LBB	
Fluoride	0.2160J	mg/L	0.0100	0.3000			6/7/2016 03:29	LBB	

Analysis Desc: SM 2540C Analytical Method: SM 2540C

WET CHEMISTRY							5/26/2016 17:40	KLW	
TDS	494	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

<b>Lab ID:</b>	<b>103621007</b>	<b>Date Received:</b>	<b>5/25/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-9</b>	<b>Date Collected:</b>	<b>5/24/2016 14:15</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							

INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:21	MRP	
Calcium	14.9	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 14:21	MRP	

Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							

TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 14:03	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 14:03	WCM	

Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							

Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Boron	0.0981J	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Cobalt	0.0334	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Barium	0.170	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:36	ELS	

Analysis Desc: EPA 300		Analytical Method: EPA 300							
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TOTAL NUTRIENTS							6/7/2016 04:07	LBB	
Sulfate	14.7	mg/L	0.3000	1.00			6/7/2016 04:07	LBB	
Chloride	16.4	mg/L	0.4000	2.50			6/8/2016 17:46	LBB	
Fluoride	0.0600J	mg/L	0.0100	0.3000			6/7/2016 04:07	LBB	

Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
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WET CHEMISTRY							5/26/2016 17:40	KLW	
TDS	162	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

**Lab ID:** 103621008 **Date Received:** 5/25/2016 10:30  
**Sample ID:** GWC-8 **Date Collected:** 5/24/2016 13:40  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:27	MRP	
Calcium	30.8	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 14:27	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 14:05	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 14:05	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Boron	0.0220J	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Cobalt	0.0649	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Barium	0.0510	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:41	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 04:46	LBB	
Sulfate	18.5	mg/L	1.50	5.00			6/8/2016 18:25	LBB	
Chloride	3.16	mg/L	0.2000	1.25			6/8/2016 18:25	LBB	
Fluoride	0.0720J	mg/L	0.0100	0.3000			6/7/2016 04:46	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/26/2016 17:40	KLW	
TDS	196	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

**Lab ID:** 103621009 **Date Received:** 5/25/2016 10:30  
**Sample ID:** FB-02 (LF) **Date Collected:** 5/24/2016 15:05  
**Sample Description:** Field Blank-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:33	MRP	
Calcium	<0.500	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 14:33	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 14:08	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 14:08	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 13:46	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 09:15	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/7/2016 09:15	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/7/2016 09:15	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 09:15	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/26/2016 17:40	KLW	
TDS	<25	mg/L	25	25			5/26/2016 17:40	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103621 CCR - Wansley

<b>Lab ID:</b>	<b>103621010</b>	<b>Date Received:</b>	<b>5/25/2016 10:30</b>
<b>Sample ID:</b>	<b>EB-02 (LF)</b>	<b>Date Collected:</b>	<b>5/24/2016 15:10</b>
<b>Sample Description</b>	<b>Equipment Blank-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					5/31/2016 10:30	KLW	6/7/2016 14:39	MRP	
Calcium	<0.500	mg/L	0.100	0.500	5/31/2016 10:30	KLW	6/7/2016 14:39	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 14:11	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 14:11	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/31/2016 10:45	KLW	6/4/2016 14:12	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/7/2016 11:10	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/7/2016 11:10	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/7/2016 11:10	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 11:10	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/26/2016 17:40	KLW	
TDS	<25	mg/L	25	25			5/26/2016 17:40	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 103621 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

QC Batch:	IC/3038	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	103586002	103586003	103586004	103621001	103621002	103621004
	103621005	103621006	103621007	103621008	103621009	103621010

METHOD BLANK: 106407

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106419

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106750

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5070	101	90-110	
Sulfate	mg/L	5	5.08	102	90-110	
Fluoride	mg/L	0.5	0.5400	108	90-110	

LABORATORY CONTROL SAMPLE: 106410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.8	105	90-110	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

LABORATORY CONTROL SAMPLE: 106410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	6.83	6.93	101	90-110	

LABORATORY CONTROL SAMPLE: 106420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5090	102	90-110	
Sulfate	mg/L	5	5.09	102	90-110	
Fluoride	mg/L	0.5	0.5420	108	90-110	

LABORATORY CONTROL SAMPLE: 106751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5120	102	90-110	
Sulfate	mg/L	5	5.13	103	90-110	

LABORATORY CONTROL SAMPLE: 106752

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	6.95	7.21	104	90-110	

LABORATORY CONTROL SAMPLE: 106753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106413                      106414                      Original: 103621008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	3.16	5	8.18	8.12	100	99.3	90-110	0.7	10	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106415                      106416                      Original: 103621008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.072	1	1.11	1.10	104	103	90-110	0.97	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106417                      106418                      Original: 103621008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	18.5	50	68.1	68.0	99.2	99	90-110	0.2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106421                      106422                      Original: 103621009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.018	1	0.9780	0.9910	96	97.3	90-110	1.3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106423                      106424                      Original: 103621009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.01	1.01	101	101	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106425                      106426                      Original: 103621009

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.84	9.66	98.4	96.6	90-110	1.8	10	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

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QC Batch:	GRAV/2879	Analysis Method:		SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	103561001	103561002	103584001	103586001	103586002	103586004
	103621001	103621002	103621004	103621005	103621006	103621007
	103621008	103621009	103621010			

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METHOD BLANK: 106503

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>WET CHEMISTRY</b>				
TDS	mg/L	<25	25	

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LABORATORY CONTROL SAMPLE: 106506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	241	236	97.9	90-110	

---

SAMPLE DUPLICATE: 106504 Original: 103561002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	32	29	9.8	20	

---

SAMPLE DUPLICATE: 106505 Original: 103621008

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
<b>WET CHEMISTRY</b>						
TDS	mg/L	196	183	6.9	20	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

QC Batch:	HGPR/1663		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103563010	103563011	103563012	103563013	103563014	103567001
	103567002	103567003	103567004	103567005	103567006	103584001
	103586001	103586002	103586003	103586004	103621001	103621002
	103621003	103621004				

METHOD BLANK: 106537

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0126	103	80-120	

LABORATORY CONTROL SAMPLE: 106538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00209	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106539                      106540                      Original: 103567006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	9.1e-006	0.002	0.00205	0.00213	102	106	80-120	3.8	20	

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### QUALITY CONTROL DATA

Workorder: 103621 CCR - Wansley

SAMPLE DUPLICATE: 106541

Original: 103584001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	2.1	20

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

QC Batch:	DIGM/4336		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103567001	103567002	103567003	103567004	103567005	103567006
	103584001	103621001	103621002	103621003	103621004	103621005
	103621006	103621007	103621008	103621009	103621010	

METHOD BLANK: 106558

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 106559

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.03	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106560                      106561                      Original: 103621002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	13	5	18.0	17.6	101	92.3	75-125	9	20	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

QC Batch:	DIGM/4337		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103567001	103567002	103567003	103567004	103567005	103567006
	103584001	103621001	103621002	103621003	103621004	103621005
	103621006	103621007	103621008	103621009	103621010	

METHOD BLANK: 106562

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 106563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.199	99.4	80-120	
Beryllium	mg/L	0.1	0.0964	96.4	80-120	
Boron	mg/L	0.3	0.296	98.6	80-120	
Chromium	mg/L	0.1	0.0971	97.1	80-120	
Cobalt	mg/L	0.1	0.100	100	80-120	
Arsenic	mg/L	0.1	0.0918	91.8	80-120	
Selenium	mg/L	0.1	0.0897	89.7	80-120	
Molybdenum	mg/L	0.1	0.0938	93.8	80-120	
Cadmium	mg/L	0.1	0.0986	98.6	80-120	
Antimony	mg/L	0.1	0.0937	93.7	80-120	
Barium	mg/L	0.1	0.101	101	80-120	
Thallium	mg/L	0.1	0.0967	96.7	80-120	
Lead	mg/L	0.1	0.0951	95.1	80-120	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106564 106565 Original: 103567005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.021	0.2	0.214	0.215	96.4	97.1	75-125	0.72	20	
Beryllium	mg/L	0.00038	0.1	0.0955	0.0951	95.1	94.7	75-125	0.42	20	
Boron	mg/L	0.0035	0.3	0.295	0.297	97	97.9	75-125	0.92	20	
Chromium	mg/L	0.00051	0.1	0.102	0.103	102	102	75-125	0	20	
Cobalt	mg/L	3.1e-005	0.1	0.102	0.101	102	101	75-125	0.99	20	
Arsenic	mg/L	6e-005	0.1	0.0992	0.100	99.1	100	75-125	0.9	20	
Selenium	mg/L	0.00028	0.1	0.0994	0.0994	99.1	99.1	75-125	0	20	
Molybdenum	mg/L	0.0085	0.1	0.110	0.112	102	103	75-125	0.98	20	
Cadmium	mg/L	6.8e-005	0.1	0.101	0.101	100	101	75-125	1	20	
Antimony	mg/L	0.00103	0.1	0.102	0.102	101	101	75-125	0	20	
Barium	mg/L	0.00102	0.1	0.106	0.107	105	106	75-125	0.95	20	
Thallium	mg/L	8e-006	0.1	0.0976	0.0978	97.6	97.8	75-125	0.2	20	
Lead	mg/L	6.7e-005	0.1	0.0978	0.0984	97.7	98.3	75-125	0.61	20	

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

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QC Batch:	HGPR/1665	Analysis Method:		EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103621005	103621006	103621007	103621008	103621009	103621010
	103628001	103628002	103628003	103628004	103628005	

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METHOD BLANK: 106574

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<hr/>			
TOTAL METALS			
Mercury	mg/L	<0.000500	0.000500

METHOD BLANK: 106580

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<hr/>			
TOTAL METALS			
Mercury	mg/L	<0.000500	0.000500

LABORATORY CONTROL SAMPLE: 106575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<hr/>					
TOTAL METALS					
Mercury	mg/L	0.002	0.00194	97	80-120

LABORATORY CONTROL SAMPLE: 106576

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<hr/>					
TOTAL METALS					
Mercury	mg/L	0.0122	0.0130	107	80-120

LABORATORY CONTROL SAMPLE: 106581

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<hr/>					
TOTAL METALS					
Mercury	mg/L	0.002	0.00168	84	80-120

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**QUALITY CONTROL DATA**

Workorder: 103621 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106577                      106578                      Original: 103621005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	5.2e-006	0.002	0.00199	0.00195	99	97	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106582                      106583                      Original: 103646001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	4.3e-006	0.002	0.00200	0.00187	100	93	80-120	7.3	20	

SAMPLE DUPLICATE: 106579    Original: 103621006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

SAMPLE DUPLICATE: 106584    Original: 103646002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103621 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103621001	GWA-2	EPA 300	IC/3038		
103621002	GWC-6	EPA 300	IC/3038		
103621004	GWC-32	EPA 300	IC/3038		
103621005	GWC-27	EPA 300	IC/3038		
103621006	GWC-7	EPA 300	IC/3038		
103621007	GWC-9	EPA 300	IC/3038		
103621008	GWC-8	EPA 300	IC/3038		
103621009	FB-02 (LF)	EPA 300	IC/3038		
103621010	EB-02 (LF)	EPA 300	IC/3038		
103621001	GWA-2	SM 2540C	GRAV/2879		
103621002	GWC-6	SM 2540C	GRAV/2879		
103621004	GWC-32	SM 2540C	GRAV/2879		
103621005	GWC-27	SM 2540C	GRAV/2879		
103621006	GWC-7	SM 2540C	GRAV/2879		
103621007	GWC-9	SM 2540C	GRAV/2879		
103621008	GWC-8	SM 2540C	GRAV/2879		
103621009	FB-02 (LF)	SM 2540C	GRAV/2879		
103621010	EB-02 (LF)	SM 2540C	GRAV/2879		
103621001	GWA-2	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103621002	GWC-6	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103621003	GWC-33	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103621004	GWC-32	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103621001	GWA-2	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621002	GWC-6	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621003	GWC-33	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621004	GWC-32	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621005	GWC-27	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621006	GWC-7	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621007	GWC-9	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621008	GWC-8	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621009	FB-02 (LF)	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024

Report ID: 103621 - 5040204  
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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103621 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103621010	EB-02 (LF)	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103621001	GWA-2	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621002	GWC-6	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621003	GWC-33	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621004	GWC-32	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621005	GWC-27	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621006	GWC-7	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621007	GWC-9	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621008	GWC-8	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621009	FB-02 (LF)	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621010	EB-02 (LF)	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080
103621005	GWC-27	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103621006	GWC-7	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103621007	GWC-9	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103621008	GWC-8	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103621009	FB-02 (LF)	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103621010	EB-02 (LF)	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850

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## LABORATORY CERTIFICATIONS

Workorder: 103621 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 103621  
 Reviewed By: ASJ shs/16  
 1<sup>st</sup> Page 1 of 1

Sample Shipment Date:<sup>8</sup> 5/24/16  <sup>12</sup> Standard Turnaround Time  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_

Company:<sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley LF CCR GW

Sampled By:<sup>10</sup> Ben Hodges, Travis Martinez, Chris Gorman  
 # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment) \_\_\_\_\_

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: <sup>22</sup> G-Gab O-Other C-Composite	
		Date	Time					EPA 6020 & EPA 7470 Metals app. III & IV	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech	HNO3 N	Ice I	HNO3 N		
103621001	GWA-2	5/24/16	1015	Background Well-Landfill	G	GW	3	X	X	X					
2	GWC-6	5/24/16	1009	Monitoring Well-Landfill	G		3	X	X	X					
3	GWG-33	5/24/16	1150				1	X	X	X					
4	GWG-32	5/24/16	0955				3	X	X	X					
5	GWG-27	5/24/16	1245												
6	GWG-7	5/24/16	1224												
7	GWG-9	5/24/16	1415												
8	GWG-8	5/24/16	1340												
9	FB-02(LF)	5/24/16	1505	Field Blank-Landfill	G	W*									
10	EB-02(LF)	5/24/16	1510	Equipment Blank-Landfill	G	W*									

Signature: Mary  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PI water

Relinquished by:<sup>26</sup> [Signature] Date/Time 5/24/16 1730  
 Received by:<sup>27</sup> [Signature] Date/Time 5-25-16 @ 1030  
 Relinquished by:<sup>28</sup> [Signature] Date/Time \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_

LAB USE ONLY: Sample Receipt Information<sup>28</sup>  
3.30 (6DEI-IR-4P) ice cooler in good condition p#2,  
Seal intact, FedEx # 8094 8486 8630

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 103621  
 Carrier: FEDEX

# of Samples: 10  
 Tracking No: 809484868630

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:**

No non-conformance noted.

June 20, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 103646 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Bidy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 103646 - 5042512  
GPC Report Page 1 of 42

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## SAMPLE SUMMARY

Workorder: 103646 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103646001	GWC-23	N/A	Water	5/25/2016 10:30	5/26/2016 10:30
103646002	GWC-25	N/A	Water	5/25/2016 13:45	5/26/2016 10:30
103646003	GWC-26	N/A	Water	5/25/2016 15:50	5/26/2016 10:30
103646004	FB-03(LF)	N/A	Water	5/25/2016 14:30	5/26/2016 10:30
103646005	EB-03(LF)	N/A	Water	5/25/2016 14:40	5/26/2016 10:30
103646006	GWA-3	N/A	Water	5/25/2016 10:10	5/26/2016 10:30
103646007	GWC-10	N/A	Water	5/25/2016 09:30	5/26/2016 10:30
103646008	GWC-24	N/A	Water	5/25/2016 10:45	5/26/2016 10:30
103646009	GWC-31	N/A	Water	5/25/2016 11:05	5/26/2016 10:30
103646010	GWC-11	N/A	Water	5/25/2016 10:07	5/26/2016 10:30
103646011	GWC-12	N/A	Water	5/25/2016 13:00	5/26/2016 10:30
103646012	GWC-13	N/A	Water	5/25/2016 12:03	5/26/2016 10:30
103646013	GWC-14	N/A	Water	5/25/2016 12:00	5/26/2016 10:30
103646014	GWC-16	N/A	Water	5/25/2016 13:37	5/26/2016 10:30
103646015	GWC-15	N/A	Water	5/25/2016 14:10	5/26/2016 10:30

Report ID: 103646 - 5042512  
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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646001</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-23</b>	<b>Date Collected:</b>	<b>5/25/2016 10:30</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 21:30	MRP	
Calcium	3.40	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 21:30	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:22	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Barium	0.00579J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 12:36	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/12/2016 23:28	LBB	
Sulfate	0.3659J	mg/L	0.3000	1.00			6/12/2016 23:28	LBB	
Chloride	1.96	mg/L	0.0400	0.2500			6/12/2016 23:28	LBB	
Fluoride	0.0285J	mg/L	0.0100	0.3000			6/12/2016 23:28	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

Report ID: 103646 - 5042512  
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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646001</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-23</b>	<b>Date Collected:</b>	<b>5/25/2016 10:30</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	33	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646002</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-25</b>	<b>Date Collected:</b>	<b>5/25/2016 13:45</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 21:36	MRP	
Calcium	7.20	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 21:36	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:30	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Cobalt	0.0122	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Antimony	0.00151J	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Barium	0.0439	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 12:41	ELS	

Report ID: 103646 - 5042512  
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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646003 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-26 **Date Collected:** 5/25/2016 15:50  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 21:42	MRP	
Calcium	1.68	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 21:42	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:35	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Antimony	0.000943J	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Barium	0.0348	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:17	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/12/2016 23:58	LBB	
Sulfate	0.3421J	mg/L	0.3000	1.00			6/12/2016 23:58	LBB	
Chloride	2.93	mg/L	0.0400	0.2500			6/12/2016 23:58	LBB	
Fluoride	0.0282J	mg/L	0.0100	0.3000			6/12/2016 23:58	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646003</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-26</b>	<b>Date Collected:</b>	<b>5/25/2016 15:50</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	42	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646004</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>FB-03(LF)</b>	<b>Date Collected:</b>	<b>5/25/2016 14:30</b>
<b>Sample Description</b>	<b>Field Blank-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						

INORGANICS					6/2/2016 10:20	KLW	6/7/2016 21:48	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 21:48	MRP	

Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						

TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 12:38	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:38	WCM	

Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						

Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:22	ELS	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646005</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>EB-03(LF)</b>	<b>Date Collected:</b>	<b>5/25/2016 14:40</b>
<b>Sample Description</b>	<b>Equipment Blank-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							

INORGANICS					6/2/2016 10:20	KLW	6/7/2016 21:54	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 21:54	MRP	

Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							

TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 12:40	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:40	WCM	

Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							

Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:27	ELS	

Analysis Desc: EPA 300		Analytical Method: EPA 300							
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TOTAL NUTRIENTS							6/13/2016 00:28	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/13/2016 00:28	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/13/2016 00:28	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/13/2016 00:28	LBB	

Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
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WET CHEMISTRY							5/27/2016 14:45	KLW	
TDS	<25	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646006 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWA-3 **Date Collected:** 5/25/2016 10:10  
**Sample Description:** Background Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 22:00	MRP	
Calcium	28.3	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 22:00	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 12:43	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:43	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Cadmium	0.000137J	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Antimony	0.000642J	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Barium	0.0270	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:32	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 00:58	LBB	
Sulfate	95.7	mg/L	3.00	10.0			6/13/2016 23:24	LBB	
Chloride	10.1	mg/L	0.4000	2.50			6/13/2016 23:24	LBB	
Fluoride	0.0485J	mg/L	0.0100	0.3000			6/13/2016 00:58	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	
TDS	150	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646007 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-10 **Date Collected:** 5/25/2016 09:30  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 22:06	MRP	
Calcium	28.5	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 22:06	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:46	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0109J	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Cobalt	0.00272J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Antimony	0.000703J	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Barium	0.0140	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:38	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 01:28	LBB	
Sulfate	20.7	mg/L	0.3000	1.00			6/13/2016 01:28	LBB	
Chloride	3.89	mg/L	0.0800	0.5000			6/13/2016 23:54	LBB	
Fluoride	1.34	mg/L	0.0100	0.3000			6/13/2016 01:28	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646007</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-10</b>	<b>Date Collected:</b>	<b>5/25/2016 09:30</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	181	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646008 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-24 **Date Collected:** 5/25/2016 10:45  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 22:12	MRP	
Calcium	0.690	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 22:12	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 12:48	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:48	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Antimony	0.00163J	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Barium	0.00545J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:43	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 03:58	LBB	
Sulfate	0.6811J	mg/L	0.3000	1.00			6/13/2016 03:58	LBB	
Chloride	4.60	mg/L	0.2000	1.25			6/13/2016 09:57	LBB	
Fluoride	0.0182J	mg/L	0.0100	0.3000			6/13/2016 03:58	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	
TDS	30	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646009 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-31 **Date Collected:** 5/25/2016 11:05  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 22:18	MRP	
Calcium	12.9	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 22:18	MRP	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
TOTAL METALS					6/1/2016 06:25	WCM	6/1/2016 12:51	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/1/2016 06:25	WCM	6/1/2016 12:51	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0229J	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Chromium	0.00321J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Antimony	0.00129J	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Barium	0.00502J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:48	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 05:27	LBB	
Sulfate	19.1	mg/L	0.3000	1.00			6/13/2016 05:27	LBB	
Chloride	1.89	mg/L	0.0400	0.2500			6/13/2016 05:27	LBB	
Fluoride	1.65	mg/L	0.0100	0.3000			6/13/2016 05:27	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	
TDS	118	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646010 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-11 **Date Collected:** 5/25/2016 10:07  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 23:01	MRP	
Calcium	18.5	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 23:01	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 12:53	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Chromium	0.00213J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Cobalt	0.0102	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Arsenic	0.00191J	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Barium	0.396	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:53	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 05:57	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/13/2016 05:57	LBB	
Chloride	5.33	mg/L	0.2000	1.25			6/13/2016 10:27	LBB	
Fluoride	0.1521J	mg/L	0.0100	0.3000			6/13/2016 05:57	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646010</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-11</b>	<b>Date Collected:</b>	<b>5/25/2016 10:07</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	197	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646011 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-12 **Date Collected:** 5/25/2016 13:00  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 23:07	MRP	
Calcium	38.3	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 23:07	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:01	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Barium	0.0173	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 13:58	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 06:27	LBB	
Sulfate	19.8	mg/L	0.3000	1.00			6/13/2016 06:27	LBB	
Chloride	10.5	mg/L	0.4000	2.50			6/13/2016 10:56	LBB	
Fluoride	0.1797J	mg/L	0.0100	0.3000			6/13/2016 06:27	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646011</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-12</b>	<b>Date Collected:</b>	<b>5/25/2016 13:00</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	175	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646012 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-13 **Date Collected:** 5/25/2016 12:03  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 23:13	MRP	
Calcium	4.06	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 23:13	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:06	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Barium	0.00280J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:03	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 06:57	LBB	
Sulfate	2.62	mg/L	0.3000	1.00			6/13/2016 06:57	LBB	
Chloride	1.27	mg/L	0.0400	0.2500			6/13/2016 06:57	LBB	
Fluoride	0.1002J	mg/L	0.0100	0.3000			6/13/2016 06:57	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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## ANALYTICAL RESULTS

Workorder: 103646 CCR - Wansley

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<b>Lab ID:</b>	<b>103646012</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-13</b>	<b>Date Collected:</b>	<b>5/25/2016 12:03</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	61	mg/L	25	25			5/27/2016 14:45	KLW	

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### ANALYTICAL RESULTS

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646013</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-14</b>	<b>Date Collected:</b>	<b>5/25/2016 12:00</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 23:19	MRP	
Calcium	22.2	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 23:19	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:09	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Boron	0.443	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Cobalt	0.0616	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Cadmium	0.000327J	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Barium	0.117	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Thallium	0.000445J	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:29	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 12:26	LBB	
Sulfate	10.5	mg/L	0.3000	1.00			6/13/2016 07:27	LBB	
Chloride	65.8	mg/L	1.00	6.25			6/13/2016 12:26	LBB	
Fluoride	0.0265J	mg/L	0.0100	0.3000			6/13/2016 07:27	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

<b>Lab ID:</b>	<b>103646013</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-14</b>	<b>Date Collected:</b>	<b>5/25/2016 12:00</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	233	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646014 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-16 **Date Collected:** 5/25/2016 13:37  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 23:25	MRP	
Calcium	7.09	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 23:25	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:12	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 14:39	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:39	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 14:39	ELS	
Chromium	0.00238J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Barium	0.0173	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:34	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 07:57	LBB	
Sulfate	0.4393J	mg/L	0.3000	1.00			6/13/2016 07:57	LBB	
Chloride	1.43	mg/L	0.0400	0.2500			6/13/2016 07:57	LBB	
Fluoride	0.0340J	mg/L	0.0100	0.3000			6/13/2016 07:57	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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## ANALYTICAL RESULTS

Workorder: 103646 CCR - Wansley

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<b>Lab ID:</b>	<b>103646014</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-16</b>	<b>Date Collected:</b>	<b>5/25/2016 13:37</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	91	mg/L	25	25			5/27/2016 14:45	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103646 CCR - Wansley

**Lab ID:** 103646015 **Date Received:** 5/26/2016 10:30  
**Sample ID:** GWC-15 **Date Collected:** 5/25/2016 14:10  
**Sample Description:** Monitoring Well-Landfill **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/2/2016 10:20	KLW	6/7/2016 23:31	MRP	
Calcium	10.6	mg/L	0.100	0.500	6/2/2016 10:20	KLW	6/7/2016 23:31	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:14	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Boron	0.0536J	mg/L	0.0200	0.100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Barium	0.00957J	mg/L	0.00200	0.0100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/2/2016 10:15	KLW	6/6/2016 14:44	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 12:56	LBB	
Sulfate	1.52	mg/L	0.3000	1.00			6/13/2016 08:27	LBB	
Chloride	6.31	mg/L	0.2000	1.25			6/13/2016 12:56	LBB	
Fluoride	0.0757J	mg/L	0.0100	0.3000			6/13/2016 08:27	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/27/2016 14:45	KLW	

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## ANALYTICAL RESULTS

Workorder: 103646 CCR - Wansley

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<b>Lab ID:</b>	<b>103646015</b>	<b>Date Received:</b>	<b>5/26/2016 10:30</b>
<b>Sample ID:</b>	<b>GWC-15</b>	<b>Date Collected:</b>	<b>5/25/2016 14:10</b>
<b>Sample Description</b>	<b>Monitoring Well-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	90	mg/L	25	25			5/27/2016 14:45	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 103646 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

QC Batch:	GRAV/2880		Analysis Method:	SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	103586003	103628001	103628002	103628003	103628004	103628005
	103646001	103646003	103646005	103646006	103646007	103646008
	103646009	103646010	103646011	103646012	103646013	103646014
	103646015					

METHOD BLANK: 106521

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 106524

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	246	102	90-110	

SAMPLE DUPLICATE: 106522 Original: 103628002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	95	99	4.1	20	

SAMPLE DUPLICATE: 106523 Original: 103646010

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	197	195	1	20	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

QC Batch:	HGPR/1665		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103621005	103621006	103621007	103621008	103621009	103621010
	103628001	103628002	103628003	103628004	103628005	103646001
	103646002	103646003	103646004	103646005	103646006	103646007
	103646008	103646009				

METHOD BLANK: 106580

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106576

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0130	107	80-120	

LABORATORY CONTROL SAMPLE: 106581

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00168	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106577                      106578                      Original: 103621005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	5.2e-006	0.002	0.00199	0.00195	99	97	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106582                      106583                      Original: 103646001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	4.3e-006	0.002	0.00200	0.00187	100	93	80-120	7.3	20	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

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SAMPLE DUPLICATE: 106579 Original: 103621006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	0	20

SAMPLE DUPLICATE: 106584 Original: 103646002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	0	20

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

QC Batch:	DIGM/4339		Analysis Method:	EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103646001	103646002	103646003	103646004	103646005	103646006
	103646007	103646008	103646009	103646010	103646011	103646012
	103646013	103646014	103646015			

METHOD BLANK: 106585

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 106586

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.38	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106587                      106588                      Original: 103646008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	0.69	5	5.95	5.87	105	104	75-125	0.96	20	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

QC Batch:	DIGM/4340		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103646001	103646002	103646003	103646004	103646005	103646006
	103646007	103646008	103646009	103646010	103646011	103646012
	103646013	103646014	103646015			

METHOD BLANK: 106589

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 106590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.209	104	80-120	
Beryllium	mg/L	0.1	0.101	101	80-120	
Boron	mg/L	0.3	0.305	102	80-120	
Chromium	mg/L	0.1	0.102	102	80-120	
Cobalt	mg/L	0.1	0.103	103	80-120	
Arsenic	mg/L	0.1	0.0974	97.4	80-120	
Selenium	mg/L	0.1	0.0984	98.4	80-120	
Molybdenum	mg/L	0.1	0.0977	97.7	80-120	
Cadmium	mg/L	0.1	0.100	100	80-120	
Antimony	mg/L	0.1	0.0989	98.9	80-120	
Barium	mg/L	0.1	0.0997	99.7	80-120	
Thallium	mg/L	0.1	0.0983	98.2	80-120	
Lead	mg/L	0.1	0.0982	98.2	80-120	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106591                      106592                      Original: 103646002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.0047	0.2	0.210	0.212	103	104	75-125	0.97	20	
Beryllium	mg/L	5.6e-005	0.1	0.101	0.101	101	101	75-125	0	20	
Boron	mg/L	0.00581	0.3	0.313	0.320	102	105	75-125	2.9	20	
Chromium	mg/L	0.00058	0.1	0.103	0.105	103	104	75-125	0.97	20	
Cobalt	mg/L	0.0122	0.1	0.114	0.116	102	104	75-125	1.9	20	
Arsenic	mg/L	6.9e-005	0.1	0.0992	0.101	99.2	101	75-125	1.8	20	
Selenium	mg/L	0.00047	0.1	0.0948	0.0979	94.3	97.4	75-125	3.2	20	
Molybdenum	mg/L	8.5e-005	0.1	0.102	0.103	102	103	75-125	0.98	20	
Cadmium	mg/L	7e-005	0.1	0.101	0.102	101	102	75-125	0.99	20	
Antimony	mg/L	0.00151	0.1	0.105	0.106	103	104	75-125	0.97	20	
Barium	mg/L	0.0439	0.1	0.145	0.146	102	102	75-125	0	20	
Thallium	mg/L	6.1e-005	0.1	0.0987	0.100	98.6	100	75-125	1.4	20	
Lead	mg/L	6.7e-005	0.1	0.0987	0.100	98.6	100	75-125	1.4	20	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

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QC Batch:	HGPR/1666	Analysis Method:	EPA 7470A			
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103646010	103646011	103646012	103646013	103646014	103646015

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METHOD BLANK: 106598

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<hr/>				
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 106615

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<hr/>				
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<hr/>						
TOTAL METALS						
Mercury	mg/L	0.002	0.00207	104	80-120	

LABORATORY CONTROL SAMPLE: 106600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<hr/>						
TOTAL METALS						
Mercury	mg/L	0.0122	0.0131	107	80-120	

LABORATORY CONTROL SAMPLE: 106616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<hr/>						
TOTAL METALS						
Mercury	mg/L	0.002	0.00186	93	80-120	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106612                      106613                      Original: 103646010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	2.96e-00	0.002	0.00206	0.00173	102	85	80-120	18	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106617                      106618                      Original: 103665005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	3.64e-00	0.002	0.00211	0.00200	104	98	80-120	5.9	20	

SAMPLE DUPLICATE: 106614                      Original: 103646011

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	13	20	

SAMPLE DUPLICATE: 106619                      Original: 103670001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	1.5	20	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

QC Batch:	IC/3040	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	103628001	103628002	103628003	103628004	103628005	103646001
	103646003	103646005	103646006	103646007	103646008	103646009
	103646010	103646011	103646012	103646013	103646014	103646015

METHOD BLANK: 106707

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106717

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4842	96.8	90-110	
Sulfate	mg/L	5	4.93	98.6	90-110	
Fluoride	mg/L	0.5	0.5237	105	90-110	

LABORATORY CONTROL SAMPLE: 106710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.6	103	90-110	
Fluoride	mg/L	6.83	6.79	99.5	90-110	

LABORATORY CONTROL SAMPLE: 106718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4791	95.8	90-110	
Sulfate	mg/L	5	4.85	96.9	90-110	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

LABORATORY CONTROL SAMPLE: 106718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.5	0.5208	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106715                      106716                      Original: 103628003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.95	9.95	99.5	99.5	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106721                      106722                      Original: 103646008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.0182	1	1.05	1.05	103	103	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106723                      106724                      Original: 103646008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.6811	10	10.7	10.7	100	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106875                      106876                      Original: 103646012

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Chloride	mg/L	1.27	1	2.28	2.27	101	101	90-110	0	10	

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**QUALITY CONTROL DATA**

Workorder: 103646 CCR - Wansley

---

QC Batch:	IC/3044	Analysis Method:	EPA 300			
QC Batch Method:	EPA 300					
Associated Lab Samples:	103646006	103646007	103750001	103750002	103750003	103750004

---

METHOD BLANK: 106843

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	

---

LABORATORY CONTROL SAMPLE: 106844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4688	93.8	90-110	
Sulfate	mg/L	5	4.84	96.8	90-110	

---

LABORATORY CONTROL SAMPLE: 106846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.5	102	90-110	

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106851                      106852                      Original: 103750004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.90	9.92	99	99.2	90-110	0.2	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103646 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103646001	GWC-23	SM 2540C	GRAV/2880		
103646003	GWC-26	SM 2540C	GRAV/2880		
103646005	EB-03(LF)	SM 2540C	GRAV/2880		
103646006	GWA-3	SM 2540C	GRAV/2880		
103646007	GWC-10	SM 2540C	GRAV/2880		
103646008	GWC-24	SM 2540C	GRAV/2880		
103646009	GWC-31	SM 2540C	GRAV/2880		
103646010	GWC-11	SM 2540C	GRAV/2880		
103646011	GWC-12	SM 2540C	GRAV/2880		
103646012	GWC-13	SM 2540C	GRAV/2880		
103646013	GWC-14	SM 2540C	GRAV/2880		
103646014	GWC-16	SM 2540C	GRAV/2880		
103646015	GWC-15	SM 2540C	GRAV/2880		
103646001	GWC-23	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646002	GWC-25	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646003	GWC-26	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646004	FB-03(LF)	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646005	EB-03(LF)	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646006	GWA-3	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646007	GWC-10	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646008	GWC-24	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646009	GWC-31	EPA 7470A	HGPR/1665	EPA 7470A	CVAA/1850
103646001	GWC-23	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646002	GWC-25	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646003	GWC-26	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646004	FB-03(LF)	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646005	EB-03(LF)	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646006	GWA-3	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646007	GWC-10	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646008	GWC-24	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646009	GWC-31	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646010	GWC-11	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028

Report ID: 103646 - 5042512  
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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103646 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103646011	GWC-12	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646012	GWC-13	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646013	GWC-14	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646014	GWC-16	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646015	GWC-15	EPA 3005A	DIGM/4339	EPA 6010D	ICP/5028
103646001	GWC-23	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646002	GWC-25	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646003	GWC-26	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646004	FB-03(LF)	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646005	EB-03(LF)	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646006	GWA-3	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646007	GWC-10	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646008	GWC-24	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646009	GWC-31	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646010	GWC-11	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646011	GWC-12	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646012	GWC-13	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646013	GWC-14	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646014	GWC-16	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646015	GWC-15	EPA 3005A	DIGM/4340	EPA 6020B	ICPM/1082
103646010	GWC-11	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103646011	GWC-12	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103646012	GWC-13	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103646013	GWC-14	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103646014	GWC-16	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103646015	GWC-15	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103646001	GWC-23	EPA 300	IC/3040		
103646003	GWC-26	EPA 300	IC/3040		
103646005	EB-03(LF)	EPA 300	IC/3040		
103646006	GWA-3	EPA 300	IC/3040		
103646007	GWC-10	EPA 300	IC/3040		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103646 CCR - Wansley

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103646008	GWC-24	EPA 300	IC/3040		
103646009	GWC-31	EPA 300	IC/3040		
103646010	GWC-11	EPA 300	IC/3040		
103646011	GWC-12	EPA 300	IC/3040		
103646012	GWC-13	EPA 300	IC/3040		
103646013	GWC-14	EPA 300	IC/3040		
103646014	GWC-16	EPA 300	IC/3040		
103646015	GWC-15	EPA 300	IC/3040		
103646006	GWA-3	EPA 300	IC/3044		
103646007	GWC-10	EPA 300	IC/3044		

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## LABORATORY CERTIFICATIONS

Workorder: 103646 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

### CERTIFICATE OF ANALYSIS

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**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**LAB USE ONLY**

Work Order No. 103646  
 Reviewed By: [Signature]  
 11 Page 1 of 1

Sample Shipment Date: 5/25/16  Standard Turnaround Time  
 Sample Received Date: \_\_\_\_\_

Company: Southern Company Services  
 Report To: Joju Abraham  
 Address: 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
 Phone/Fax: 404-506-7239  
 Contact: Joju Abraham  
Plant Wansley  
 Project Location: \_\_\_\_\_  
 Account Number: \_\_\_\_\_  
 Special Instructions: Wansley LF CCR GW

Sampled By: Kristen Ben Hodges, Chris Gargin, Travis Martinez  
 # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

PRESERVATIVE 20			ANALYSIS REQUESTED 21		
HNO3	Ice	HNO3			
N	I	N			
Metals app. III & IV			EPA 6020 & EPA 7470		
C.I, F, SO4 EPA 300			TDS SM2540C		
Radium 226 & 228			Ga Tech		

Sample Type	Matrix	No. of Containers
17	18	19
GW	GW	3
GW*	GW*	1
GW	GW	1
GW	GW	1

LAB USE ONLY 13 LAB ID	Sample Number 14	Collection 15		Sample Description 16
		Date	Time	
103646001	GW-C-23	5/25/16	1030	Monitoring well - landfill
2	GW-C-25	5/25/16	1345	↓
3	GW-C-26	5/25/16	1550	Field Blank - landfill
4	FB-03(LF)	5/25/16	1430	Equipment Blank - landfill
5	EB-03(LF)	5/25/16	1440	Monitoring well - landfill
	GW-C-35	5/25/16	0950	↓
	FD-02(LF)	5/25/16	—	Field Duplicate - landfill

LAB USE ONLY 25 Comments	PRESERVATIVE 20						ANALYSIS REQUESTED 21			Sample Type	Matrix	No. of Containers
	C-Grab	O-Other	C-Composite	HNO3	Ice	HNO3						
C-Composite	Matrix Key: 23			ANALYSIS REQUESTED 21			Metals app. III & IV			GW	GW	3
	C-01	S-Solid	S-Stage				C.I, F, SO4 EPA 300					
Preservative Key: 24			ANALYSIS REQUESTED 21			Radium 226 & 228			GW	GW	1	
H-Hydrochloric Acid	N-Nitric Acid	W-White				TDS SM2540C						GW
S-Sulfuric Acid	SH-Sodium Hydroxide	W-White				Radium 226 & 228			GW	GW	1	
SB-Sodium Bisulfate	P-Phosphoric Acid	W-White				Ga Tech						GW
ST-Sodium Thiosulfate	I-Ice	U-Unpreserved							GW	GW	1	

LAB USE ONLY: Sample Receipt Information 28			
Relinquished by: <u>[Signature]</u>	Date/Time	<u>5/25/16 1730</u>	<u>HAC(GE)EL-18-4P, with ice, cooler in good condition</u>
Received by: <u>[Signature]</u>	Date/Time	<u>5/26/16 @ 10:30</u>	<u>Seal, PHK 2, FedEx # 8033 2039 4495</u>
Relinquished by: _____	Date/Time	_____	<u>Samples GWC-25, FB-03 arrived at 74C</u>
Received by: _____	Date/Time	_____	_____

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 103646  
 Reviewed By: [Signature]  
 Date: 5-26-16

Page 1 of 1

Sample Shipment Date: 5/25/16  
 Sample Received Date: 5/25/16

<sup>12</sup> Standard Turnaround Time

Sampled By: Kristen Ivankova, Ben Hoops, Chris Gargan, Travis Martinez  
 # of Business Days (Rush)         
 (Must be cleared through Env. Lab. Prior to shipment)

Company: <sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address: <sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax: <sup>3</sup> 404-506-7239  
 Contact: <sup>4</sup> Joju Abraham  
 Project Location: <sup>5</sup> Plant Wansley  
 Account Number: <sup>6</sup> \_\_\_\_\_  
 Special Instructions: <sup>7</sup> Wansley LF CCR GW

LAB USE ONLY <sup>13</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: <sup>22</sup>
		Date	Time					EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300	TDS SM2540C	Radium 226 & 228	HNO3	Ice	
1036460006	GWA-3	5/25/16	1010	Background well-landfill	G	Gu	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
7	GWC-10		0930	Monitoring well-landfill			2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
8	GWC-24		1045				2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9	GWC-31		1105				2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
10	GWC-11		1007				3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
11	GWC-12		1300				3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
12	GWC-13		1203				3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	GWC-14		1200				3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
14	GWC-16		1337				3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
15	GWC-15		1410				3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

LAB USE ONLY: Sample Receipt Information <sup>28</sup>

Relinquished by: <sup>26</sup> [Signature] Date/Time 5/25/16 17:30  
 Received by: <sup>27</sup> [Signature] Date/Time 5/25/16 18:30  
 Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_



# Sample Receipt Checklist

Client: Wansley  
Workorder No.: 103646  
Carrier: FEDEX

# of Samples: 15  
Tracking No: 809484868641

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	Some samples did not arrived on ice and were outside the temperature requirement
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	4
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

## Receiving Narrative:

Sample sets for GWC-25, FB-03 arrived outside the temperature requirement; customer was notified. Nutrient samples will be re-sampled on later event.



June 20, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 103670 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

Report ID: 103670 - 5042585  
GPC Report Page 1 of 30

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## SAMPLE SUMMARY

Workorder: 103670 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103670001	GWC-18	N/A	Water	5/26/2016 11:00	5/27/2016 10:00
103670002	GWC-19	N/A	Water	5/26/2016 12:52	5/27/2016 10:00
103670003	GWC-20	N/A	Water	5/26/2016 10:40	5/27/2016 10:00
103670004	GWC-21	N/A	Water	5/26/2016 13:10	5/27/2016 10:00
103670005	GWC-22	N/A	Water	5/26/2016 11:25	5/27/2016 10:00
103670006	EB-04(LF)	N/A	Water	5/26/2016 11:55	5/27/2016 10:00
103670007	FD-04(LF)	N/A	Water	5/26/2016 00:00	5/27/2016 10:00
103670008	FD-03(LF)	N/A	Water	5/26/2016 00:00	5/27/2016 10:00

Report ID: 103670 - 5042585  
GPC Report Page 2 of 30

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

**Lab ID:** 103670001 **Date Received:** 5/27/2016 10:00  
**Sample ID:** GWC-18 **Date Collected:** 5/26/2016 11:00  
**Sample Description:** Monitoring Well-LF **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 11:47	MRP	
Calcium	6.42	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 11:47	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:47	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Barium	0.0323	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 17:46	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/12/2016 22:23	LBB	
Sulfate	0.5980J	mg/L	0.3000	1.00			6/12/2016 22:23	LBB	
Chloride	1.78	mg/L	0.0400	0.2500			6/12/2016 22:23	LBB	
Fluoride	0.0380J	mg/L	0.0100	0.3000			6/12/2016 22:23	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	

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## ANALYTICAL RESULTS

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	103670001	<b>Date Received:</b>	5/27/2016 10:00
<b>Sample ID:</b>	GWC-18	<b>Date Collected:</b>	5/26/2016 11:00
<b>Sample Description</b>	Monitoring Well-LF	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	80	mg/L	25	25			5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670002</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>GWC-19</b>	<b>Date Collected:</b>	<b>5/26/2016 12:52</b>
<b>Sample Description</b>	<b>Monitoring Well-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 12:29	MRP	
Calcium	6.78	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 12:29	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:52	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	0.0105J	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Barium	0.0687	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 17:51	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/12/2016 23:02	LBB	
Sulfate	0.5740J	mg/L	0.3000	1.00			6/12/2016 23:02	LBB	
Chloride	1.53	mg/L	0.0400	0.2500			6/12/2016 23:02	LBB	
Fluoride	0.0310J	mg/L	0.0100	0.3000			6/12/2016 23:02	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	

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## ANALYTICAL RESULTS

Workorder: 103670 CCR - Wansley

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<b>Lab ID:</b>	<b>103670002</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>GWC-19</b>	<b>Date Collected:</b>	<b>5/26/2016 12:52</b>
<b>Sample Description</b>	<b>Monitoring Well-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

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Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	75	mg/L	25	25			5/31/2016 14:50	KLW	

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### ANALYTICAL RESULTS

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	103670003	<b>Date Received:</b>	5/27/2016 10:00
<b>Sample ID:</b>	GWC-20	<b>Date Collected:</b>	5/26/2016 10:40
<b>Sample Description</b>	Monitoring Well-LF	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 12:35	MRP	
Calcium	9.13	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 12:35	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:55	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Barium	0.0336	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 17:56	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/12/2016 23:40	LBB	
Sulfate	0.9790J	mg/L	0.3000	1.00			6/12/2016 23:40	LBB	
Chloride	2.00	mg/L	0.0400	0.2500			6/12/2016 23:40	LBB	
Fluoride	0.0410J	mg/L	0.0100	0.3000			6/12/2016 23:40	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670003</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>GWC-20</b>	<b>Date Collected:</b>	<b>5/26/2016 10:40</b>
<b>Sample Description</b>	<b>Monitoring Well-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	65	mg/L	25	25			5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

**Lab ID:** 103670004 **Date Received:** 5/27/2016 10:00  
**Sample ID:** GWC-21 **Date Collected:** 5/26/2016 13:10  
**Sample Description:** Monitoring Well-LF **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 12:41	MRP	
Calcium	3.16	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 12:41	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 13:57	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Barium	0.0237	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:12	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/13/2016 00:19	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/13/2016 00:19	LBB	
Chloride	3.59	mg/L	0.0800	0.5000			6/13/2016 11:10	LBB	
Fluoride	0.0140J	mg/L	0.0100	0.3000			6/13/2016 00:19	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670004</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>GWC-21</b>	<b>Date Collected:</b>	<b>5/26/2016 13:10</b>
<b>Sample Description</b>	<b>Monitoring Well-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	42	mg/L	25	25			5/31/2016 14:50	KLW	

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### ANALYTICAL RESULTS

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	103670005	<b>Date Received:</b>	5/27/2016 10:00
<b>Sample ID:</b>	GWC-22	<b>Date Collected:</b>	5/26/2016 11:25
<b>Sample Description</b>	Monitoring Well-LF	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 12:47	MRP	
Calcium	11.5	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 12:47	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 14:00	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Barium	0.0235	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:37	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 00:57	LBB	
Sulfate	0.5620J	mg/L	0.3000	1.00			6/13/2016 00:57	LBB	
Chloride	1.71	mg/L	0.0400	0.2500			6/13/2016 00:57	LBB	
Fluoride	0.0480J	mg/L	0.0100	0.3000			6/13/2016 00:57	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670005</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>GWC-22</b>	<b>Date Collected:</b>	<b>5/26/2016 11:25</b>
<b>Sample Description</b>	<b>Monitoring Well-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	108	mg/L	25	25			5/31/2016 14:50	KLW	

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### ANALYTICAL RESULTS

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	103670006	<b>Date Received:</b>	5/27/2016 10:00
<b>Sample ID:</b>	EB-04(LF)	<b>Date Collected:</b>	5/26/2016 11:55
<b>Sample Description</b>	Equipment Blank-LF	<b>Matrix:</b>	Water
<b>Location</b>	Wansley		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 12:54	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 12:54	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 14:03	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:43	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/13/2016 01:35	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/13/2016 01:35	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/13/2016 01:35	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/13/2016 01:35	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670006</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>EB-04(LF)</b>	<b>Date Collected:</b>	<b>5/26/2016 11:55</b>
<b>Sample Description</b>	<b>Equipment Blank-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	<25	mg/L	25	25			5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670007</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>FD-04(LF)</b>	<b>Date Collected:</b>	<b>5/26/2016 00:00</b>
<b>Sample Description</b>	<b>Field Duplicate-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 13:00	MRP	
Calcium	9.23	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 13:00	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 14:05	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Barium	0.0323	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:48	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 02:14	LBB	
Sulfate	0.9840J	mg/L	0.3000	1.00			6/13/2016 02:14	LBB	
Chloride	2.00	mg/L	0.0400	0.2500			6/13/2016 02:14	LBB	
Fluoride	0.0410J	mg/L	0.0100	0.3000			6/13/2016 02:14	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670007</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>FD-04(LF)</b>	<b>Date Collected:</b>	<b>5/26/2016 00:00</b>
<b>Sample Description</b>	<b>Field Duplicate-LF</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	97	mg/L	25	25			5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

**Lab ID:** 103670008 **Date Received:** 5/27/2016 10:00  
**Sample ID:** FD-03(LF) **Date Collected:** 5/26/2016 00:00  
**Sample Description:** Field Duplicate-FD **Matrix:** Water  
**Location:** Wansley

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							
INORGANICS					6/3/2016 10:50	KLW	6/8/2016 13:06	MRP	
Calcium	6.82	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 13:06	MRP	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
TOTAL METALS					6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							
Mercury	<0.000500	mg/L	0.000250	0.000500	6/2/2016 06:20	WCM	6/2/2016 14:08	WCM	
Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							
Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Barium	0.0326	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:53	ELS	
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 06:43	LBB	
Sulfate	0.6030J	mg/L	0.3000	1.00			6/13/2016 06:43	LBB	
Chloride	1.79	mg/L	0.0400	0.2500			6/13/2016 06:43	LBB	
Fluoride	0.0380J	mg/L	0.0100	0.3000			6/13/2016 06:43	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103670 CCR - Wansley

<b>Lab ID:</b>	<b>103670008</b>	<b>Date Received:</b>	<b>5/27/2016 10:00</b>
<b>Sample ID:</b>	<b>FD-03(LF)</b>	<b>Date Collected:</b>	<b>5/26/2016 00:00</b>
<b>Sample Description</b>	<b>Field Duplicate-FD</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	59	mg/L	25	25			5/31/2016 14:50	KLW	

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 103670 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

QC Batch:	GRAV/2881	Analysis Method:		SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	103665001	103665002	103665003	103665004	103665005	103670001
	103670002	103670003	103670004	103670005	103670006	103670007
	103670008					

METHOD BLANK: 106570

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 106573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	224	92.9	90-110	

SAMPLE DUPLICATE: 106571

Original: 103665005

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	124	117	5.8	20	

SAMPLE DUPLICATE: 106572

Original: 103675001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	97	95	2.1	20	

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

QC Batch:	HGPR/1666		Analysis Method:	EPA 7470A		
QC Batch Method:	EPA 7470A					
Associated Lab Samples:	103646010	103646011	103646012	103646013	103646014	103646015
	103665001	103665002	103665003	103665004	103665005	103670001
	103670002	103670003	103670004	103670005	103670006	103670007
	103670008					

METHOD BLANK: 106615

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0131	107	80-120	

LABORATORY CONTROL SAMPLE: 106616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00186	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106617                      106618                      Original: 103665005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	3.64e-00	0.002	0.00211	0.00200	104	98	80-120	5.9	20	

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

SAMPLE DUPLICATE: 106614 Original: 103646011

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	13	20

SAMPLE DUPLICATE: 106619 Original: 103670001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers
TOTAL METALS					
Mercury	mg/L	<0.000500	<0.000500	1.5	20

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

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QC Batch: DIGM/4345 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3005A  
 Associated Lab Samples: 103670001 103670002 103670003 103670004 103670005 103670006  
 103670007 103670008

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METHOD BLANK: 106653

Parameter	Units	Blank Result	Reporting Limit Qualifiers
INORGANICS			
Calcium	mg/L	<0.500	0.500

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LABORATORY CONTROL SAMPLE: 106654

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS					
Calcium	mg/L	5	5.23	105	80-120

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106655 106656 Original: 103670001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	6.42	5	11.9	11.9	110	110	75-125	0	20	

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

QC Batch:	DIGM/4346		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103670001	103670002	103670003	103670004	103670005	103670006
	103670007	103670008				

METHOD BLANK: 106659

Parameter	Units	Blank Result	Reporting Limit Qualifiers
<b>TOTAL METALS</b>			
Lithium	mg/L	<0.0500	0.0500
Beryllium	mg/L	<0.00300	0.00300
Boron	mg/L	<0.100	0.100
Chromium	mg/L	<0.0100	0.0100
Cobalt	mg/L	<0.0100	0.0100
Arsenic	mg/L	<0.00500	0.00500
Selenium	mg/L	<0.0100	0.0100
Molybdenum	mg/L	<0.0100	0.0100
Cadmium	mg/L	<0.00100	0.00100
Antimony	mg/L	<0.00300	0.00300
Barium	mg/L	<0.0100	0.0100
Thallium	mg/L	<0.00100	0.00100
Lead	mg/L	<0.00500	0.00500

LABORATORY CONTROL SAMPLE: 106660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
<b>TOTAL METALS</b>					
Lithium	mg/L	0.2	0.211	106	80-120
Beryllium	mg/L	0.1	0.0995	99.5	80-120
Boron	mg/L	0.3	0.303	101	80-120
Chromium	mg/L	0.1	0.101	101	80-120
Cobalt	mg/L	0.1	0.101	101	80-120
Arsenic	mg/L	0.1	0.0963	96.3	80-120
Selenium	mg/L	0.1	0.0963	96.3	80-120
Molybdenum	mg/L	0.1	0.0971	97.1	80-120
Cadmium	mg/L	0.1	0.101	101	80-120
Antimony	mg/L	0.1	0.0997	99.7	80-120
Barium	mg/L	0.1	0.101	101	80-120
Thallium	mg/L	0.1	0.0973	97.3	80-120
Lead	mg/L	0.1	0.0979	97.9	80-120

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106661 106662 Original: 103670003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>TOTAL METALS</b>											
Lithium	mg/L	0.00274	0.2	0.201	0.206	99.3	102	75-125	2.7	20	
Beryllium	mg/L	6e-006	0.1	0.0943	0.0965	94.3	96.5	75-125	2.3	20	
Boron	mg/L	0.00393	0.3	0.288	0.306	94.7	101	75-125	6.4	20	
Chromium	mg/L	0.00025	0.1	0.102	0.104	102	104	75-125	1.9	20	
Cobalt	mg/L	8.7e-005	0.1	0.102	0.102	102	102	75-125	0	20	
Arsenic	mg/L	4e-005	0.1	0.0997	0.101	99.7	101	75-125	1.3	20	
Selenium	mg/L	0.00049	0.1	0.0971	0.101	96.6	101	75-125	4.5	20	
Molybdenum	mg/L	0.00020	0.1	0.100	0.101	99.9	101	75-125	1.1	20	
Cadmium	mg/L	2.5e-005	0.1	0.101	0.103	101	103	75-125	2	20	
Antimony	mg/L	9.8e-005	0.1	0.101	0.103	101	103	75-125	2	20	
Barium	mg/L	0.0336	0.1	0.133	0.133	99.7	99.7	75-125	0	20	
Thallium	mg/L	1e-006	0.1	0.0969	0.0980	96.9	98	75-125	1.1	20	
Lead	mg/L	2.8e-005	0.1	0.0975	0.0984	97.4	98.3	75-125	0.92	20	

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

QC Batch:	IC/3043	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	103665003	103665004	103665005	103670001	103670002	103670003
	103670004	103670005	103670006	103670007	103670008	

METHOD BLANK: 106825

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106835

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5030	101	90-110	
Sulfate	mg/L	5	5.04	101	90-110	
Fluoride	mg/L	0.5	0.5310	106	90-110	

LABORATORY CONTROL SAMPLE: 106828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.8	104	90-110	
Fluoride	mg/L	6.83	6.92	101	90-110	

LABORATORY CONTROL SAMPLE: 106836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5020	100	90-110	
Sulfate	mg/L	5	5.05	101	90-110	
Fluoride	mg/L	0.5	0.5320	106	90-110	

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**QUALITY CONTROL DATA**

Workorder: 103670 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106829                      106830                      Original: 103670007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	2	1	2.96	2.94	95.4	93.7	90-110	1.8	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106831                      106832                      Original: 103670007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.041	1	1.08	1.07	104	103	90-110	0.97	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106833                      106834                      Original: 103670007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.984	10	11.1	11.0	101	99.7	90-110	1.3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106837                      106838                      Original: 103675004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	1.01	0.9910	100	98.7	90-110	1.3	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103670 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103670001	GWC-18	SM 2540C	GRAV/2881		
103670002	GWC-19	SM 2540C	GRAV/2881		
103670003	GWC-20	SM 2540C	GRAV/2881		
103670004	GWC-21	SM 2540C	GRAV/2881		
103670005	GWC-22	SM 2540C	GRAV/2881		
103670006	EB-04(LF)	SM 2540C	GRAV/2881		
103670007	FD-04(LF)	SM 2540C	GRAV/2881		
103670008	FD-03(LF)	SM 2540C	GRAV/2881		
103670001	GWC-18	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670002	GWC-19	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670003	GWC-20	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670004	GWC-21	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670005	GWC-22	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670006	EB-04(LF)	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670007	FD-04(LF)	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670008	FD-03(LF)	EPA 7470A	HGPR/1666	EPA 7470A	CVAA/1851
103670001	GWC-18	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670002	GWC-19	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670003	GWC-20	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670004	GWC-21	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670005	GWC-22	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670006	EB-04(LF)	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670007	FD-04(LF)	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670008	FD-03(LF)	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103670001	GWC-18	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670002	GWC-19	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670003	GWC-20	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670004	GWC-21	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670005	GWC-22	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670006	EB-04(LF)	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670007	FD-04(LF)	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087

Report ID: 103670 - 5042585  
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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103670 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103670008	FD-03(LF)	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103670001	GWC-18	EPA 300	IC/3043		
103670002	GWC-19	EPA 300	IC/3043		
103670003	GWC-20	EPA 300	IC/3043		
103670004	GWC-21	EPA 300	IC/3043		
103670005	GWC-22	EPA 300	IC/3043		
103670006	EB-04(LF)	EPA 300	IC/3043		
103670007	FD-04(LF)	EPA 300	IC/3043		
103670008	FD-03(LF)	EPA 300	IC/3043		

Report ID: 103670 - 5042585  
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## LABORATORY CERTIFICATIONS

Workorder: 103670 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. 103670  
 Reviewed By: [Signature]  
 Page 1 of 1

Sample Shipment Date: 5/27/16 (received by Gold)  Standard Turnaround Time  
 Sample Received Date: 5/27/16

Company: Southern Company Services  
 Report To: Joju Abraham  
 Address: 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
 Phone/Fax: 404-506-7239  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number:   
 Special Instructions: Wansley LF CCR GW

Sampled By: B. Hodges, C. Gargan, T. Martini # of Business Days (Rush)   
 (Must be cleared through Env. Lab. Prior to shipment)

[Signature]  
 Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: 22 G-Grab O-Other C-Composite
		Date	Time					EPA 6020 & EPA 7470 Metals app. III & IV	CI, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech	HNO3 N	Ice I	HNO3 N	
103670001	GW-18	5/26/16	1100	Monitoring Well-LF	G	GW	3	X	X	X				
	GW-19		1252				3							
	GW-20		1040				3							
	GW-21		1310				3							
	GW-22		1125				3							
	EB-04(LF)		1155	Equipment Blank-LF		*W	3							
	FD-04(LF)		-	Field Duplicate-LF		GW	3							
	FD-03(LF)		-	Field Duplicate-LF		GW	3							
						GW	3							
							3							

\*W-  
DI  
Water

LAB USE ONLY: Sample Receipt Information <sup>23</sup>			
Relinquished by: <u>[Signature]</u>	Date/Time: <u>5/27/16</u>	<u>5.0°C (68°F) (R-4P), with ice, cooled in good condition, no seal</u>	
Received by: <u>[Signature]</u>	Date/Time: <u>5/27/16 @ 10:00 PM</u>	<u>Hand.</u>	
Relinquished by:	Date/Time:		
Received by:	Date/Time:		



# Sample Receipt Checklist

Client: Wansley  
Workorder No.: 103670  
Carrier: HAND

# of Samples: 8  
Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
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
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:**

No non-conformance noticed.

June 20, 2016

Joju Abraham  
Southern Company Services  
Earth Sciences & Env Eng  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Workorder: 103675 CCR - Wansley

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

<http://environmental.southernco.com/gpc/environmental-lab/chem.html>

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. 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.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,



R. S. Dickerson  
rsdicker@southernco.com  
QA/QC Specialist

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## SAMPLE SUMMARY

Workorder: 103675 CCR - Wansley

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103675001	GWC-17	N/A	Water	5/25/2016 15:17	5/27/2016 11:03
103675002	GWC-25	N/A	Water	5/26/2016 13:00	5/27/2016 11:03
103675003	FB-03(LF)	N/A	Water	5/26/2016 13:05	5/27/2016 11:03
103675004	FB-04(LF)	N/A	Water	5/26/2016 12:05	5/27/2016 11:03

Report ID: 103675 - 5042596  
GPC Report Page 2 of 17

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**ANALYTICAL RESULTS**

Workorder: 103675 CCR - Wansley

<b>Lab ID:</b>	<b>103675001</b>	<b>Date Received:</b>	<b>5/27/2016 11:03</b>
<b>Sample ID:</b>	<b>GWC-17</b>	<b>Date Collected:</b>	<b>5/25/2016 15:17</b>
<b>Sample Description</b>	<b>Monitoring Well</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							

INORGANICS					6/3/2016 10:50	KLW	6/8/2016 13:12	MRP	
Calcium	8.68	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 13:12	MRP	

Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							

TOTAL METALS					6/6/2016 06:34	WCM	6/6/2016 11:42	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/6/2016 06:34	WCM	6/6/2016 11:42	WCM	

Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							

Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Barium	0.0169	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 18:58	ELS	

Analysis Desc: EPA 300		Analytical Method: EPA 300							
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TOTAL NUTRIENTS							6/13/2016 07:21	LBB	
Sulfate	0.7950J	mg/L	0.3000	1.00			6/13/2016 07:21	LBB	
Chloride	1.31	mg/L	0.0400	0.2500			6/13/2016 07:21	LBB	
Fluoride	0.0450J	mg/L	0.0100	0.3000			6/13/2016 07:21	LBB	

Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
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WET CHEMISTRY							5/31/2016 14:50	KLW	
TDS	97	mg/L	25	25			5/31/2016 14:50	KLW	

Report ID: 103675 - 5042596  
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**ANALYTICAL RESULTS**

Workorder: 103675 CCR - Wansley

<b>Lab ID:</b>	<b>103675002</b>	<b>Date Received:</b>	<b>5/27/2016 11:03</b>
<b>Sample ID:</b>	<b>GWC-25</b>	<b>Date Collected:</b>	<b>5/26/2016 13:00</b>
<b>Sample Description</b>	<b>Monitoring Well</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 11:48	LBB	
Sulfate	4.31	mg/L	0.3000	1.00			6/13/2016 07:59	LBB	
Chloride	8.14	mg/L	0.2000	1.25			6/13/2016 11:48	LBB	
Fluoride	0.0340J	mg/L	0.0100	0.3000			6/13/2016 07:59	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	
TDS	75	mg/L	25	25			5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103675 CCR - Wansley

<b>Lab ID:</b>	<b>103675003</b>	<b>Date Received:</b>	<b>5/27/2016 11:03</b>
<b>Sample ID:</b>	<b>FB-03(LF)</b>	<b>Date Collected:</b>	<b>5/26/2016 13:05</b>
<b>Sample Description</b>	<b>Field Duplicate-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 300		Analytical Method: EPA 300							
TOTAL NUTRIENTS							6/13/2016 08:38	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/13/2016 08:38	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/13/2016 08:38	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/13/2016 08:38	LBB	
Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
WET CHEMISTRY							5/31/2016 14:50	KLW	
TDS	<25	mg/L	25	25			5/31/2016 14:50	KLW	

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**ANALYTICAL RESULTS**

Workorder: 103675 CCR - Wansley

<b>Lab ID:</b>	<b>103675004</b>	<b>Date Received:</b>	<b>5/27/2016 11:03</b>
<b>Sample ID:</b>	<b>FB-04(LF)</b>	<b>Date Collected:</b>	<b>5/26/2016 12:05</b>
<b>Sample Description</b>	<b>Field Blank-Landfill</b>	<b>Matrix:</b>	<b>Water</b>
<b>Location</b>	<b>Wansley</b>		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
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Analysis Desc: EPA 6010D		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6010D							

INORGANICS					6/3/2016 10:50	KLW	6/8/2016 13:18	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/3/2016 10:50	KLW	6/8/2016 13:18	MRP	

Analysis Desc: EPA 7470A		Preparation Method: EPA 7470A							
		Analytical Method: EPA 7470A							

TOTAL METALS					6/6/2016 06:34	WCM	6/6/2016 11:45	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	6/6/2016 06:34	WCM	6/6/2016 11:45	WCM	

Analysis Desc: EPA 6020B		Preparation Method: EPA 3005A							
		Analytical Method: EPA 6020B							

Lithium	<0.0500	mg/L	0.0100	0.0500	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Boron	<0.100	mg/L	0.0200	0.100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	6/3/2016 10:55	KLW	6/6/2016 19:03	ELS	

Analysis Desc: EPA 300		Analytical Method: EPA 300							
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TOTAL NUTRIENTS							6/13/2016 09:16	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/13/2016 09:16	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/13/2016 09:16	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/13/2016 09:16	LBB	

Analysis Desc: SM 2540C		Analytical Method: SM 2540C							
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WET CHEMISTRY							5/31/2016 14:50	KLW	
TDS	<25	mg/L	25	25			5/31/2016 14:50	KLW	

Report ID: 103675 - 5042596  
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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 103675 CCR - Wansley

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### PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

---

QC Batch:	GRAV/2881	Analysis Method:		SM 2540C		
QC Batch Method:	SM 2540C					
Associated Lab Samples:	103665001	103665002	103665003	103665004	103665005	103670001
	103670002	103670003	103670004	103670005	103670006	103670007
	103670008	103675001	103675002	103675003	103675004	

---

METHOD BLANK: 106570

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

---

LABORATORY CONTROL SAMPLE: 106573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	224	92.9	90-110	

---

SAMPLE DUPLICATE: 106571

Original: 103665005

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	124	117	5.8	20	

---

SAMPLE DUPLICATE: 106572

Original: 103675001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	97	95	2.1	20	

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

---

QC Batch:	DIGM/4345	Analysis Method:		EPA 6010D		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103670001	103670002	103670003	103670004	103670005	103670006
	103670007	103670008	103675001	103675004		

---

METHOD BLANK: 106653

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>INORGANICS</b>				
Calcium	mg/L	<0.500	0.500	

---

LABORATORY CONTROL SAMPLE: 106654

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>INORGANICS</b>						
Calcium	mg/L	5	5.23	105	80-120	

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106655                      106656                      Original: 103670001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
<b>INORGANICS</b>											
Calcium	mg/L	6.42	5	11.9	11.9	110	110	75-125	0	20	

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

QC Batch:	DIGM/4346		Analysis Method:	EPA 6020B		
QC Batch Method:	EPA 3005A					
Associated Lab Samples:	103670001	103670002	103670003	103670004	103670005	103670006
	103670007	103670008	103675001	103675004		

METHOD BLANK: 106659

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
<b>TOTAL METALS</b>				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 106660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
<b>TOTAL METALS</b>						
Lithium	mg/L	0.2	0.211	106	80-120	
Beryllium	mg/L	0.1	0.0995	99.5	80-120	
Boron	mg/L	0.3	0.303	101	80-120	
Chromium	mg/L	0.1	0.101	101	80-120	
Cobalt	mg/L	0.1	0.101	101	80-120	
Arsenic	mg/L	0.1	0.0963	96.3	80-120	
Selenium	mg/L	0.1	0.0963	96.3	80-120	
Molybdenum	mg/L	0.1	0.0971	97.1	80-120	
Cadmium	mg/L	0.1	0.101	101	80-120	
Antimony	mg/L	0.1	0.0997	99.7	80-120	
Barium	mg/L	0.1	0.101	101	80-120	
Thallium	mg/L	0.1	0.0973	97.3	80-120	
Lead	mg/L	0.1	0.0979	97.9	80-120	

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106661 106662 Original: 103670003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.00274	0.2	0.201	0.206	99.3	102	75-125	2.7	20	
Beryllium	mg/L	6e-006	0.1	0.0943	0.0965	94.3	96.5	75-125	2.3	20	
Boron	mg/L	0.00393	0.3	0.288	0.306	94.7	101	75-125	6.4	20	
Chromium	mg/L	0.00025	0.1	0.102	0.104	102	104	75-125	1.9	20	
Cobalt	mg/L	8.7e-005	0.1	0.102	0.102	102	102	75-125	0	20	
Arsenic	mg/L	4e-005	0.1	0.0997	0.101	99.7	101	75-125	1.3	20	
Selenium	mg/L	0.00049	0.1	0.0971	0.101	96.6	101	75-125	4.5	20	
Molybdenum	mg/L	0.00020	0.1	0.100	0.101	99.9	101	75-125	1.1	20	
Cadmium	mg/L	2.5e-005	0.1	0.101	0.103	101	103	75-125	2	20	
Antimony	mg/L	9.8e-005	0.1	0.101	0.103	101	103	75-125	2	20	
Barium	mg/L	0.0336	0.1	0.133	0.133	99.7	99.7	75-125	0	20	
Thallium	mg/L	1e-006	0.1	0.0969	0.0980	96.9	98	75-125	1.1	20	
Lead	mg/L	2.8e-005	0.1	0.0975	0.0984	97.4	98.3	75-125	0.92	20	

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

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QC Batch: HGPR/1667 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A  
 Associated Lab Samples: 103675001 103675004 103689001 103750001 103750002 103750003  
 103750004

---

METHOD BLANK: 106684

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Mercury	mg/L	<0.000500	0.000500

METHOD BLANK: 106690

Parameter	Units	Blank Result	Reporting Limit Qualifiers
TOTAL METALS			
Mercury	mg/L	<0.000500	0.000500

LABORATORY CONTROL SAMPLE: 106685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Mercury	mg/L	0.002	0.00200	100	80-120

LABORATORY CONTROL SAMPLE: 106686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Mercury	mg/L	0.0122	0.0127	104	80-120

LABORATORY CONTROL SAMPLE: 106691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Mercury	mg/L	0.002	0.00196	98	80-120

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106687                      106688                      Original: 103689001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	RPD Qualifiers
TOTAL METALS											
Mercury	mg/L	3.94e-00	0.002	0.00202	0.00203	99	100	80-120	1	20	

SAMPLE DUPLICATE: 106689    Original: 103704001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	RPD Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0.97	20	

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

QC Batch:	IC/3043	Analysis Method:		EPA 300		
QC Batch Method:	EPA 300					
Associated Lab Samples:	103665003	103665004	103665005	103670001	103670002	103670003
	103670004	103670005	103670006	103670007	103670008	103675001
	103675002	103675003	103675004			

METHOD BLANK: 106835

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.8	104	90-110	
Fluoride	mg/L	6.83	6.92	101	90-110	

LABORATORY CONTROL SAMPLE: 106836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5020	100	90-110	
Sulfate	mg/L	5	5.05	101	90-110	
Fluoride	mg/L	0.5	0.5320	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106833                      106834                      Original: 103670007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Sulfate	mg/L	0.984	10	11.1	11.0	101	99.7	90-110	1.3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106837                      106838                      Original: 103675004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
Chloride	mg/L	0.004	1	1.01	0.9910	100	98.7	90-110	1.3	10	

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**QUALITY CONTROL DATA**

Workorder: 103675 CCR - Wansley

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106839                      106840                      Original: 103675004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.04	1.02	104	102	90-110	1.9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106841                      106842                      Original: 103675004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.2	9.83	102	98.3	90-110	3.7	10	

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 103675 CCR - Wansley

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103675001	GWC-17	SM 2540C	GRAV/2881		
103675002	GWC-25	SM 2540C	GRAV/2881		
103675003	FB-03(LF)	SM 2540C	GRAV/2881		
103675004	FB-04(LF)	SM 2540C	GRAV/2881		
103675001	GWC-17	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103675004	FB-04(LF)	EPA 3005A	DIGM/4345	EPA 6010D	ICP/5030
103675001	GWC-17	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103675004	FB-04(LF)	EPA 3005A	DIGM/4346	EPA 6020B	ICPM/1087
103675001	GWC-17	EPA 7470A	HGPR/1667	EPA 7470A	CVAA/1852
103675004	FB-04(LF)	EPA 7470A	HGPR/1667	EPA 7470A	CVAA/1852
103675001	GWC-17	EPA 300	IC/3043		
103675002	GWC-25	EPA 300	IC/3043		
103675003	FB-03(LF)	EPA 300	IC/3043		
103675004	FB-04(LF)	EPA 300	IC/3043		

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## LABORATORY CERTIFICATIONS

Workorder: 103675 CCR - Wansley

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Certification Program	Certification Number
NELAC	E57554

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Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

LAB USE ONLY

Work Order No. 103675  
 Reviewed By: [Signature] 5-27-16  
 Page 1 of 1

Sample Shipment Date: 5/26/16  Standard Turnaround Time  
 Sample Received Date: 5/26/16 # of Business Days (Rush) 0  
 Sampled By: B. Hodges, C. Gerson, T. McAmis (Must be cleared through Env. Lab. Prior to shipment)

Company: Southern Company Services  
 Report To: Joju Abraham  
 Address: 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
 Phone/Fax: 404-506-7239  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number:           
 Special Instructions: Wansley LF CCR GW

\*W = DI Water

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: <sup>22</sup>	Matrix Key: <sup>23</sup>	Comments <sup>25</sup>		
		Date	Time					HNO3	Ice	N	HNO3	N	G-Grab				O-Other	C-Composite
103675001	GW-17	5/25/16	1517	Monitoring well	G	GW	3	X	X	X	X						TM	
2	GW-25	5/26/16	1360	Monitoring well	G	GW	1	X	X	X								BH
3	FB-03(LF)	5/26/16	1305	Field Blank-landfill	G	*W	1	X	X	X								CG
4	FB-04(LF)	5/26/16	1205	Field Blank-landfill	G	*W	3	X	X	X								CG

LAB USE ONLY: Sample Receipt Information <sup>28</sup>  
 Relinquished by: [Signature] Date/Time 5/26/16 1730  
 Received by: [Signature] Date/Time 5-27-16 09103  
 Relinquished by: [Signature] Date/Time           
 Received by: [Signature] Date/Time         

450C (GPEL-TR-4P) re. seal intact of HLD, cooler in good condition, FolEx # 51010082 2837

# Sample Receipt Checklist



Client: Wansley  
 Workorder No.: 103675  
 Carrier: FEDEX

# of Samples: 4  
 Tracking No: 810100822837

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
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	4.5
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

# 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: 400-123943-1

Client Project/Site: CCR Plant Wansley

For:

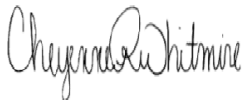
Georgia Power - Environmental Lab

Bin 39110

2480 Maner Road

Smyrna, Georgia 30080

Attn: Jolynn Locke



Authorized for release by:

8/10/2016 1:48:42 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://www.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: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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**Job ID: 400-123943-1**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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### Job Narrative 400-123943-1

#### RAD

Method(s) PrecSep\_0: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with Ra228 analytical batch 160-260212.

Method(s) PrecSep\_0: Radium-228 prep batch 160-263225: Insufficient sample volume was available to perform a sample duplicate (DUP) for sample WGWC-9 (400-123943-44). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with Ra226 analytical batch 160-260210. A lab control sample/lab control sample duplicate (LCS/LCSD) was prepared instead.



# Method Summary

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-123943-1	GWC-17	Water	05/25/16 15:17	07/05/16 10:01
400-123943-2	FB-04(LF)	Water	05/26/16 12:05	07/05/16 10:01
400-123943-3	GWA-2	Water	05/24/16 10:15	07/05/16 10:01
400-123943-4	GWC-6	Water	05/24/16 10:09	07/05/16 10:01
400-123943-5	GWC-32	Water	05/24/16 09:55	07/05/16 10:01
400-123943-6	GWC-27	Water	05/24/16 12:45	07/05/16 10:01
400-123943-7	GWC-7	Water	05/24/16 12:24	07/05/16 10:01
400-123943-8	GWC-9	Water	05/24/16 14:15	07/05/16 10:01
400-123943-9	GWC-8	Water	05/24/16 13:40	07/05/16 10:01
400-123943-10	FB-02(LF)	Water	05/24/16 15:05	07/05/16 10:01
400-123943-11	EB-02(LF)	Water	05/24/16 15:10	07/05/16 10:01
400-123943-12	WGWA-7	Water	05/18/16 09:45	07/05/16 10:01
400-123943-13	WGWA-5	Water	05/18/16 09:30	07/05/16 10:01
400-123943-14	WGWA-6	Water	05/18/16 09:30	07/05/16 10:01
400-123943-15	WGWA-3	Water	05/18/16 12:15	07/05/16 10:01
400-123943-16	WGWA-4	Water	05/18/16 12:25	07/05/16 10:01
400-123943-17	WGWC-17	Water	05/18/16 12:35	07/05/16 10:01
400-123943-18	FD-01(AP)	Water	05/18/16 00:00	07/05/16 10:01
400-123943-19	FD-02(AP)	Water	05/18/16 00:00	07/05/16 10:01
400-123943-20	WGWC-16	Water	05/18/16 14:35	07/05/16 10:01
400-123943-21	WGWC-15	Water	05/18/16 14:55	07/05/16 10:01
400-123943-22	WGWC-10	Water	05/18/16 15:25	07/05/16 10:01
400-123943-23	EB-01(AP)	Water	05/18/16 15:45	07/05/16 10:01
400-123943-24	GWC-18	Water	05/26/16 11:00	07/05/16 10:01
400-123943-25	GWC-19	Water	05/26/16 12:52	07/05/16 10:01
400-123943-26	GWC-20	Water	05/26/16 10:40	07/05/16 10:01
400-123943-27	GWC-21	Water	05/26/16 13:10	07/05/16 10:01
400-123943-28	GWC-22	Water	05/26/16 11:25	07/05/16 10:01
400-123943-29	EB-04(LF)	Water	05/26/16 11:55	07/05/16 10:01
400-123943-30	FD-04(LF)	Water	05/26/16 00:00	07/05/16 10:01
400-123943-31	FD-03(LF)	Water	05/26/16 00:00	07/05/16 10:01
400-123943-32	WGWA-1	Water	05/17/16 11:25	07/05/16 10:01
400-123943-33	WGWA-2	Water	05/17/16 12:00	07/05/16 10:01
400-123943-34	FB-01(AP)	Water	05/17/16 12:25	07/05/16 10:01
400-123943-35	WGWA-18	Water	05/17/16 14:10	07/05/16 10:01
400-123943-36	GWA-29	Water	05/19/16 17:10	07/05/16 10:01
400-123943-37	GWA-4	Water	05/19/16 16:05	07/05/16 10:01
400-123943-38	GWC-30	Water	05/20/16 09:30	07/05/16 10:01
400-123943-39	GWA-1	Water	05/20/16 10:10	07/05/16 10:01
400-123943-40	FB-01(LF)	Water	05/20/16 10:00	07/05/16 10:01
400-123943-41	EB-01(LF)	Water	05/20/16 10:05	07/05/16 10:01
400-123943-42	FB-02(AP)	Water	05/19/16 09:25	07/09/16 09:13
400-123943-43	EB-02(AP)	Water	05/19/16 08:55	07/09/16 09:13
400-123943-44	WGWC-9	Water	05/19/16 09:50	07/09/16 09:13
400-123943-45	GWC-34	Water	05/23/16 12:45	07/09/16 09:13
400-123943-46	FD-01(LF)	Water	05/23/16 00:00	07/09/16 09:13
400-123943-47	GWA-28	Water	05/23/16 13:30	07/09/16 09:13
400-123943-48	GWC-5	Water	05/23/16 15:45	07/09/16 09:13
400-123943-49	WGWC-13	Water	05/19/16 11:15	07/05/16 10:01
400-123943-50	WGWC-14	Water	05/19/16 11:25	07/05/16 10:01
400-123943-51	WGWC-11	Water	05/19/16 14:05	07/05/16 10:01
400-123943-52	WGWC-12	Water	05/19/16 14:35	07/05/16 10:01
400-123943-53	WGWC-8	Water	05/19/16 12:05	07/05/16 10:01

TestAmerica Pensacola

# Sample Summary

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-123943-54	GWC-23	Water	05/25/16 10:30	07/05/16 10:01
400-123943-55	GWC-25	Water	05/25/16 13:45	07/05/16 10:01
400-123943-56	GWC-26	Water	05/25/16 15:50	07/05/16 10:01
400-123943-57	FB-03(LF)	Water	05/25/16 14:30	07/05/16 10:01
400-123943-58	EB-03(LF)	Water	05/25/16 14:40	07/05/16 10:01
400-123943-59	GWC-35	Water	05/25/16 09:50	07/05/16 10:01
400-123943-60	FD-02(LF)	Water	05/25/16 00:00	07/05/16 10:01
400-123943-61	GWC-11	Water	05/25/16 10:07	07/05/16 10:01
400-123943-62	GWC-12	Water	05/25/16 13:00	07/05/16 10:01
400-123943-63	GWC-13	Water	05/25/16 12:03	07/05/16 10:01
400-123943-64	GWC-14	Water	05/25/16 12:00	07/05/16 10:01
400-123943-65	GWC-16	Water	05/25/16 13:37	07/05/16 10:01
400-123943-66	GWC-15	Water	05/25/16 14:10	07/05/16 10:01

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-17**

**Date Collected: 05/25/16 15:17**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0888	U	0.113	0.113	1.00	0.188	pCi/L	07/07/16 15:59	07/30/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/07/16 15:59	07/30/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.251	0.252	1.00	0.430	pCi/L	07/07/16 15:59	07/28/16 16:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/07/16 15:59	07/28/16 16:09	1
Y Carrier	83.7		40 - 110					07/07/16 15:59	07/28/16 16:09	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	0.206	U	0.275	0.276	5.00	0.430	pCi/L		08/04/16 02:16	1

**Client Sample ID: FB-04(LF)**

**Date Collected: 05/26/16 12:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-2**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0466	U	0.112	0.112	1.00	0.203	pCi/L	07/07/16 15:59	07/30/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.4		40 - 110					07/07/16 15:59	07/30/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.413	U	0.303	0.306	1.00	0.618	pCi/L	07/07/16 15:59	07/28/16 16:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.4		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	85.6		40 - 110					07/07/16 15:59	07/28/16 16:10	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FB-04(LF)**

**Date Collected: 05/26/16 12:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-2**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.366	U	0.323	0.325	5.00	0.618	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWA-2**

**Date Collected: 05/24/16 10:15**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-3**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.184		0.123	0.124	1.00	0.171	pCi/L	07/07/16 15:59	07/30/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		40 - 110					07/07/16 15:59	07/30/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0617	U	0.343	0.343	1.00	0.617	pCi/L	07/07/16 15:59	07/28/16 16:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	85.2		40 - 110					07/07/16 15:59	07/28/16 16:10	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	0.123	U	0.365	0.365	5.00	0.617	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-6**

**Date Collected: 05/24/16 10:09**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-4**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.116	0.116	1.00	0.223	pCi/L	07/07/16 15:59	07/30/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		40 - 110					07/07/16 15:59	07/30/16 15:23	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-6**

**Date Collected: 05/24/16 10:09**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-4**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0198	U	0.265	0.265	1.00	0.481	pCi/L	07/07/16 15:59	07/28/16 16:10	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	74.9		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	84.5		40 - 110					07/07/16 15:59	07/28/16 16:10	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	-0.0198	U	0.289	0.289	5.00	0.481	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-32**

**Date Collected: 05/24/16 09:55**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-5**

**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	0.154		0.0998	0.101	1.00	0.133	pCi/L	07/07/16 15:59	07/30/16 15:23	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	81.8		40 - 110					07/07/16 15:59	07/30/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0756	U	0.317	0.317	1.00	0.552	pCi/L	07/07/16 15:59	07/28/16 16:12	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	81.8		40 - 110					07/07/16 15:59	07/28/16 16:12	1
Y Carrier	80.7		40 - 110					07/07/16 15:59	07/28/16 16:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.230	U	0.333	0.333	5.00	0.552	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-27**

**Date Collected: 05/24/16 12:45**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-6**

**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	0.371		0.144	0.148	1.00	0.154	pCi/L	07/07/16 15:59	07/30/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					07/07/16 15:59	07/30/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.515	U	0.343	0.346	1.00	0.532	pCi/L	07/07/16 15:59	07/28/16 16:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	84.9		40 - 110					07/07/16 15:59	07/28/16 16:10	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		0.372	0.376	5.00	0.532	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-7**

**Date Collected: 05/24/16 12:24**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-7**

**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	0.0768	U	0.107	0.108	1.00	0.182	pCi/L	07/07/16 15:59	07/30/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.7		40 - 110					07/07/16 15:59	07/30/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.765		0.374	0.381	1.00	0.549	pCi/L	07/07/16 15:59	07/28/16 16:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.7		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	83.7		40 - 110					07/07/16 15:59	07/28/16 16:10	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-7**

Date Collected: 05/24/16 12:24

Date Received: 07/05/16 10:01

**Lab Sample ID: 400-123943-7**

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.842		0.389	0.396	5.00	0.549	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-9**

Date Collected: 05/24/16 14:15

Date Received: 07/05/16 10:01

**Lab Sample ID: 400-123943-8**

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	0.271		0.140	0.142	1.00	0.181	pCi/L	07/07/16 15:59	07/30/16 15:24	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	73.8		40 - 110					07/07/16 15:59	07/30/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0887	U	0.296	0.296	1.00	0.515	pCi/L	07/07/16 15:59	07/28/16 16:10	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	73.8		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	83.0		40 - 110					07/07/16 15:59	07/28/16 16:10	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	0.359	U	0.327	0.328	5.00	0.515	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-8**

Date Collected: 05/24/16 13:40

Date Received: 07/05/16 10:01

**Lab Sample ID: 400-123943-9**

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	0.277		0.130	0.132	1.00	0.155	pCi/L	07/07/16 15:59	07/30/16 15:24	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.8		40 - 110					07/07/16 15:59	07/30/16 15:24	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-8**

**Date Collected: 05/24/16 13:40**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-9**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.772		0.334	0.341	1.00	0.480	pCi/L	07/07/16 15:59	07/28/16 16:10	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.8		40 - 110					07/07/16 15:59	07/28/16 16:10	1
Y Carrier	87.1		40 - 110					07/07/16 15:59	07/28/16 16:10	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	1.05		0.358	0.366	5.00	0.480	pCi/L		08/04/16 02:16	1

**Client Sample ID: FB-02(LF)**

**Date Collected: 05/24/16 15:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-10**

**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	0.0932	U	0.219	0.219	1.00	0.386	pCi/L	07/07/16 15:59	07/30/16 15:24	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	42.5		40 - 110					07/07/16 15:59	07/30/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.508	U	0.587	0.589	1.00	0.967	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	42.5		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	84.9		40 - 110					07/07/16 15:59	07/28/16 16:25	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	0.601	U	0.627	0.629	5.00	0.967	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola



# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: EB-02(LF)**

**Lab Sample ID: 400-123943-11**

Date Collected: 05/24/16 15:10

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0746	U	0.127	0.127	1.00	0.218	pCi/L	07/07/16 15:59	07/30/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					07/07/16 15:59	07/30/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.304	U	0.283	0.284	1.00	0.456	pCi/L	07/07/16 15:59	07/28/16 16:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	85.2		40 - 110					07/07/16 15:59	07/28/16 16:25	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	0.379	U	0.310	0.311	5.00	0.456	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWA-7**

**Lab Sample ID: 400-123943-12**

Date Collected: 05/18/16 09:45

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0756	U	0.129	0.129	1.00	0.221	pCi/L	07/07/16 15:59	07/30/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/07/16 15:59	07/30/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.193	U	0.268	0.269	1.00	0.447	pCi/L	07/07/16 15:59	07/28/16 16:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	87.1		40 - 110					07/07/16 15:59	07/28/16 16:25	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWA-7**

**Date Collected: 05/18/16 09:45**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-12**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.268	U	0.297	0.298	5.00	0.447	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWA-5**

**Date Collected: 05/18/16 09:30**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-13**

**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	0.00200	U	0.114	0.114	1.00	0.216	pCi/L	07/07/16 15:59	07/30/16 15:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.2		40 - 110					07/07/16 15:59	07/30/16 15:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.323	U	0.292	0.294	1.00	0.470	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.2		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	86.4		40 - 110					07/07/16 15:59	07/28/16 16:25	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	0.325	U	0.314	0.315	5.00	0.470	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWA-6**

**Date Collected: 05/18/16 09:30**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-14**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.01		0.347	0.441	1.00	0.207	pCi/L	07/07/16 15:59	07/30/16 15:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	92.6		40 - 110					07/07/16 15:59	07/30/16 15:25	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWA-6**

**Lab Sample ID: 400-123943-14**

Date Collected: 05/18/16 09:30

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.98		0.520	0.694	1.00	0.374	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	92.6		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	83.7		40 - 110					07/07/16 15:59	07/28/16 16:25	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	8.00		0.626	0.822	5.00	0.374	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWA-3**

**Lab Sample ID: 400-123943-15**

Date Collected: 05/18/16 12:15

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.113	U	0.107	0.107	1.00	0.166	pCi/L	07/07/16 15:59	07/30/16 15:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	78.6		40 - 110					07/07/16 15:59	07/30/16 15:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0884	U	0.311	0.312	1.00	0.567	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	78.6		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	81.9		40 - 110					07/07/16 15:59	07/28/16 16:25	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	0.0250	U	0.329	0.329	5.00	0.567	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWA-4**

**Lab Sample ID: 400-123943-16**

Date Collected: 05/18/16 12:25

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.328		0.148	0.151	1.00	0.184	pCi/L	07/07/16 15:59	07/30/16 15:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.8		40 - 110					07/07/16 15:59	07/30/16 15:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.711		0.328	0.334	1.00	0.474	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.8		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	85.6		40 - 110					07/07/16 15:59	07/28/16 16:25	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	1.04		0.359	0.367	5.00	0.474	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWC-17**

**Lab Sample ID: 400-123943-17**

Date Collected: 05/18/16 12:35

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.194		0.117	0.119	1.00	0.150	pCi/L	07/07/16 15:59	07/30/16 15:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	67.2		40 - 110					07/07/16 15:59	07/30/16 15:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0776	U	0.313	0.313	1.00	0.574	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	67.2		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	84.5		40 - 110					07/07/16 15:59	07/28/16 16:25	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-17**

**Lab Sample ID: 400-123943-17**

Date Collected: 05/18/16 12:35

Matrix: Water

Date Received: 07/05/16 10:01

**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	0.116	U	0.334	0.335	5.00	0.574	pCi/L		08/04/16 02:16	1

**Client Sample ID: FD-01(AP)**

**Lab Sample ID: 400-123943-18**

Date Collected: 05/18/16 00:00

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0463	U	0.0933	0.0934	1.00	0.165	pCi/L	07/07/16 15:59	07/30/16 16:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	84.6		40 - 110					07/07/16 15:59	07/30/16 16:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0349	U	0.240	0.240	1.00	0.438	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	84.6		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	83.7		40 - 110					07/07/16 15:59	07/28/16 16:25	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	0.0114	U	0.258	0.258	5.00	0.438	pCi/L		08/04/16 02:16	1

**Client Sample ID: FD-02(AP)**

**Lab Sample ID: 400-123943-19**

Date Collected: 05/18/16 00:00

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.415		0.149	0.154	1.00	0.164	pCi/L	07/07/16 15:59	07/30/16 16:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	86.0		40 - 110					07/07/16 15:59	07/30/16 16:15	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FD-02(AP)**

**Lab Sample ID: 400-123943-19**

Date Collected: 05/18/16 00:00

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.925		0.292	0.305	1.00	0.371	pCi/L	07/07/16 15:59	07/28/16 16:25	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	86.0		40 - 110					07/07/16 15:59	07/28/16 16:25	1
Y Carrier	86.0		40 - 110					07/07/16 15:59	07/28/16 16:25	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	1.34		0.328	0.341	5.00	0.371	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWC-16**

**Lab Sample ID: 400-123943-20**

Date Collected: 05/18/16 14:35

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.467		0.164	0.169	1.00	0.187	pCi/L	07/07/16 15:59	07/30/16 16:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	89.5		40 - 110					07/07/16 15:59	07/30/16 16:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.567		0.301	0.306	1.00	0.452	pCi/L	07/07/16 15:59	07/28/16 16:26	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	89.5		40 - 110					07/07/16 15:59	07/28/16 16:26	1
Y Carrier	85.2		40 - 110					07/07/16 15:59	07/28/16 16:26	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	1.03		0.343	0.350	5.00	0.452	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-15**

**Lab Sample ID: 400-123943-21**

Date Collected: 05/18/16 14:55

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.152		0.0847	0.0858	1.00	0.111	pCi/L	07/08/16 13:36	08/01/16 07:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/08/16 13:36	08/01/16 07:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.417	U	0.322	0.324	1.00	0.507	pCi/L	07/08/16 16:52	07/29/16 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/08/16 16:52	07/29/16 14:17	1
Y Carrier	80.0		40 - 110					07/08/16 16:52	07/29/16 14:17	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	0.569		0.333	0.335	5.00	0.507	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWC-10**

**Lab Sample ID: 400-123943-22**

Date Collected: 05/18/16 15:25

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0717	U	0.0940	0.0943	1.00	0.157	pCi/L	07/08/16 13:36	08/01/16 07:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					07/08/16 13:36	08/01/16 07:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.111	U	0.251	0.251	1.00	0.433	pCi/L	07/08/16 16:52	07/29/16 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					07/08/16 16:52	07/29/16 14:17	1
Y Carrier	83.4		40 - 110					07/08/16 16:52	07/29/16 14:17	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-10**

**Lab Sample ID: 400-123943-22**

Date Collected: 05/18/16 15:25

Matrix: Water

Date Received: 07/05/16 10:01

**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	0.182	U	0.268	0.268	5.00	0.433	pCi/L		08/04/16 02:16	1

**Client Sample ID: EB-01(AP)**

**Lab Sample ID: 400-123943-23**

Date Collected: 05/18/16 15:45

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00536	U	0.0547	0.0547	1.00	0.108	pCi/L	07/08/16 13:36	08/01/16 07:59	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.3		40 - 110					07/08/16 13:36	08/01/16 07:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.206	U	0.309	0.309	1.00	0.518	pCi/L	07/08/16 16:52	07/29/16 14:17	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.3		40 - 110					07/08/16 16:52	07/29/16 14:17	1
Y Carrier	84.1		40 - 110					07/08/16 16:52	07/29/16 14:17	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	0.211	U	0.314	0.314	5.00	0.518	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-123943-24**

Date Collected: 05/26/16 11:00

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0719	U	0.0908	0.0910	1.00	0.151	pCi/L	07/08/16 13:36	08/01/16 07:59	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	93.4		40 - 110					07/08/16 13:36	08/01/16 07:59	1



# Client Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Client Sample ID: GWC-18

Date Collected: 05/26/16 11:00

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-24

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0999	U	0.268	0.268	1.00	0.464	pCi/L	07/08/16 16:52	07/29/16 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					07/08/16 16:52	07/29/16 14:17	1
Y Carrier	83.4		40 - 110					07/08/16 16:52	07/29/16 14:17	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	0.172	U	0.283	0.283	5.00	0.464	pCi/L		08/04/16 02:16	1

## Client Sample ID: GWC-19

Date Collected: 05/26/16 12:52

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-25

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	0.0773	U	0.0947	0.0949	1.00	0.157	pCi/L	07/08/16 13:36	08/01/16 07:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/08/16 13:36	08/01/16 07:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.209	U	0.267	0.268	1.00	0.443	pCi/L	07/08/16 16:52	07/29/16 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/08/16 16:52	07/29/16 14:17	1
Y Carrier	86.0		40 - 110					07/08/16 16:52	07/29/16 14:17	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	0.286	U	0.283	0.284	5.00	0.443	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-123943-26**

Date Collected: 05/26/16 10:40

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0322	U	0.0807	0.0807	1.00	0.144	pCi/L	07/08/16 13:36	08/01/16 07:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					07/08/16 13:36	08/01/16 07:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0459	U	0.315	0.315	1.00	0.569	pCi/L	07/08/16 16:52	07/29/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					07/08/16 16:52	07/29/16 14:19	1
Y Carrier	75.1		40 - 110					07/08/16 16:52	07/29/16 14:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0138	U	0.326	0.326	5.00	0.569	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-123943-27**

Date Collected: 05/26/16 13:10

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0164	U	0.0669	0.0669	1.00	0.124	pCi/L	07/08/16 13:36	08/01/16 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					07/08/16 13:36	08/01/16 08:10	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.000	U	0.318	0.318	1.00	0.567	pCi/L	07/08/16 16:52	07/29/16 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					07/08/16 16:52	07/29/16 14:20	1
Y Carrier	77.0		40 - 110					07/08/16 16:52	07/29/16 14:20	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-21**

**Date Collected: 05/26/16 13:10**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-27**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0164	U	0.325	0.325	5.00	0.567	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-22**

**Date Collected: 05/26/16 11:25**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-28**

**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	0.0373	U	0.0785	0.0786	1.00	0.138	pCi/L	07/08/16 13:36	08/01/16 08:10	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.9		40 - 110					07/08/16 13:36	08/01/16 08:10	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0164	U	0.282	0.282	1.00	0.507	pCi/L	07/08/16 16:52	07/29/16 14:20	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.9		40 - 110					07/08/16 16:52	07/29/16 14:20	1
Y Carrier	83.0		40 - 110					07/08/16 16:52	07/29/16 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0209	U	0.293	0.293	5.00	0.507	pCi/L		08/04/16 02:16	1

**Client Sample ID: EB-04(LF)**

**Date Collected: 05/26/16 11:55**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-29**

**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	-0.0394	U	0.0681	0.0682	1.00	0.145	pCi/L	07/08/16 13:36	08/01/16 08:10	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	84.0		40 - 110					07/08/16 13:36	08/01/16 08:10	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: EB-04(LF)**

**Lab Sample ID: 400-123943-29**

**Date Collected: 05/26/16 11:55**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0759	U	0.326	0.326	1.00	0.568	pCi/L	07/08/16 16:52	07/29/16 14:20	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	84.0		40 - 110					07/08/16 16:52	07/29/16 14:20	1
Y Carrier	85.2		40 - 110					07/08/16 16:52	07/29/16 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0365	U	0.333	0.333	5.00	0.568	pCi/L		08/04/16 02:16	1

**Client Sample ID: FD-04(LF)**

**Lab Sample ID: 400-123943-30**

**Date Collected: 05/26/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.0778	0.0783	1.00	0.115	pCi/L	07/08/16 13:36	08/01/16 08:10	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	87.5		40 - 110					07/08/16 13:36	08/01/16 08:10	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.550	U	0.410	0.414	1.00	0.645	pCi/L	07/08/16 16:52	07/29/16 14:20	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	87.5		40 - 110					07/08/16 16:52	07/29/16 14:20	1
Y Carrier	65.0		40 - 110					07/08/16 16:52	07/29/16 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.653		0.418	0.421	5.00	0.645	pCi/L		08/04/16 02:16	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FD-03(LF)**

**Lab Sample ID: 400-123943-31**

Date Collected: 05/26/16 00:00

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0337	U	0.0668	0.0669	1.00	0.118	pCi/L	07/08/16 13:36	08/01/16 08:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					07/08/16 13:36	08/01/16 08:10	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00586	U	0.338	0.338	1.00	0.601	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	76.6		40 - 110					07/08/16 16:52	07/29/16 14:21	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	0.0278	U	0.345	0.345	5.00	0.601	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWA-1**

**Lab Sample ID: 400-123943-32**

Date Collected: 05/17/16 11:25

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0256	U	0.0727	0.0728	1.00	0.132	pCi/L	07/08/16 13:36	08/01/16 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/08/16 13:36	08/01/16 08:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0269	U	0.273	0.273	1.00	0.485	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	87.1		40 - 110					07/08/16 16:52	07/29/16 14:21	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Client Sample ID: WGWA-1

Date Collected: 05/17/16 11:25

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-32

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0525	U	0.282	0.282	5.00	0.485	pCi/L		08/04/16 02:16	1

## Client Sample ID: WGWA-2

Date Collected: 05/17/16 12:00

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-33

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	0.0545	U	0.0658	0.0659	1.00	0.108	pCi/L	07/08/16 13:36	08/01/16 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/08/16 13:36	08/01/16 08:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0754	U	0.267	0.267	1.00	0.465	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	87.9		40 - 110					07/08/16 16:52	07/29/16 14:21	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	0.130	U	0.275	0.275	5.00	0.465	pCi/L		08/04/16 02:16	1

## Client Sample ID: FB-01(AP)

Date Collected: 05/17/16 12:25

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-34

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	0.0603	U	0.0590	0.0592	1.00	0.0918	pCi/L	07/08/16 13:36	08/01/16 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/08/16 13:36	08/01/16 08:11	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FB-01(AP)**

**Lab Sample ID: 400-123943-34**

**Date Collected: 05/17/16 12:25**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.155	U	0.264	0.265	1.00	0.504	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	77.4		40 - 110					07/08/16 16:52	07/29/16 14:21	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	-0.0945	U	0.271	0.271	5.00	0.504	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWA-18**

**Lab Sample ID: 400-123943-35**

**Date Collected: 05/17/16 14:10**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.173		0.0798	0.0813	1.00	0.0920	pCi/L	07/08/16 13:36	08/01/16 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/08/16 13:36	08/01/16 08:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0114	U	0.245	0.245	1.00	0.444	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	78.1		40 - 110					07/08/16 16:52	07/29/16 14:21	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	0.184	U	0.258	0.258	5.00	0.444	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWA-29**

**Lab Sample ID: 400-123943-36**

Date Collected: 05/19/16 17:10

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0305	U	0.0909	0.0909	1.00	0.162	pCi/L	07/08/16 13:36	08/01/16 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					07/08/16 13:36	08/01/16 08:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.510	U	0.397	0.399	1.00	0.628	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	71.8		40 - 110					07/08/16 16:52	07/29/16 14:21	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	0.540	U	0.407	0.410	5.00	0.628	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWA-4**

**Lab Sample ID: 400-123943-37**

Date Collected: 05/19/16 16:05

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>0.195</b>		0.0902	0.0919	1.00	0.110	pCi/L	07/08/16 13:36	08/01/16 08:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/08/16 13:36	08/01/16 08:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.510</b>		0.319	0.322	1.00	0.488	pCi/L	07/08/16 16:52	07/29/16 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	84.9		40 - 110					07/08/16 16:52	07/29/16 14:21	1

TestAmerica Pensacola



# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWA-4**  
**Date Collected: 05/19/16 16:05**  
**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-37**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.706		0.331	0.335	5.00	0.488	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-30**  
**Date Collected: 05/20/16 09:30**  
**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-38**  
**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	-0.00247	U	0.0489	0.0489	1.00	0.100	pCi/L	07/08/16 13:36	08/01/16 08:11	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	103		40 - 110					07/08/16 13:36	08/01/16 08:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.214	0.215	1.00	0.348	pCi/L	07/08/16 16:52	07/29/16 14:21	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	103		40 - 110					07/08/16 16:52	07/29/16 14:21	1
Y Carrier	87.1		40 - 110					07/08/16 16:52	07/29/16 14:21	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	0.205	U	0.220	0.221	5.00	0.348	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWA-1**  
**Date Collected: 05/20/16 10:10**  
**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-39**  
**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	0.0213	U	0.0605	0.0606	1.00	0.111	pCi/L	07/08/16 13:36	08/01/16 08:11	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	92.6		40 - 110					07/08/16 13:36	08/01/16 08:11	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWA-1**  
**Date Collected: 05/20/16 10:10**  
**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-39**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.193	U	0.244	0.245	1.00	0.405	pCi/L	07/08/16 16:52	07/29/16 14:22	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	92.6		40 - 110					07/08/16 16:52	07/29/16 14:22	1
Y Carrier	84.5		40 - 110					07/08/16 16:52	07/29/16 14:22	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	0.215	U	0.251	0.252	5.00	0.405	pCi/L		08/04/16 02:16	1

**Client Sample ID: FB-01(LF)**  
**Date Collected: 05/20/16 10:00**  
**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-40**  
**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	0.0101	U	0.0511	0.0511	1.00	0.0987	pCi/L	07/08/16 13:36	08/01/16 08:12	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	95.4		40 - 110					07/08/16 13:36	08/01/16 08:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.247	U	0.311	0.312	1.00	0.516	pCi/L	07/08/16 16:52	07/29/16 14:22	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	95.4		40 - 110					07/08/16 16:52	07/29/16 14:22	1
Y Carrier	68.0		40 - 110					07/08/16 16:52	07/29/16 14:22	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	0.315	0.316	5.00	0.516	pCi/L		08/04/16 02:16	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: EB-01(LF)**

**Lab Sample ID: 400-123943-41**

Date Collected: 05/20/16 10:05

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0129	U	0.0737	0.0737	1.00	0.144	pCi/L	07/08/16 14:24	08/01/16 15:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					07/08/16 14:24	08/01/16 15:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0194	U	0.340	0.340	1.00	0.605	pCi/L	07/08/16 16:55	07/29/16 16:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					07/08/16 16:55	07/29/16 16:10	1
Y Carrier	87.9		40 - 110					07/08/16 16:55	07/29/16 16:10	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	0.00649	U	0.348	0.348	5.00	0.605	pCi/L		08/04/16 02:16	1

**Client Sample ID: FB-02(AP)**

**Lab Sample ID: 400-123943-42**

Date Collected: 05/19/16 09:25

Matrix: Water

Date Received: 07/09/16 09:13

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0985	U	0.0960	0.0964	1.00	0.151	pCi/L	07/12/16 16:38	08/03/16 17:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/12/16 16:38	08/03/16 17:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.120	U	0.259	0.259	1.00	0.481	pCi/L	07/12/16 17:07	08/02/16 13:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/12/16 17:07	08/02/16 13:52	1
Y Carrier	86.7		40 - 110					07/12/16 17:07	08/02/16 13:52	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FB-02(AP)**

**Lab Sample ID: 400-123943-42**

Date Collected: 05/19/16 09:25

Matrix: Water

Date Received: 07/09/16 09:13

**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	-0.0218	U	0.276	0.277	5.00	0.481	pCi/L		08/04/16 02:09	1

**Client Sample ID: EB-02(AP)**

**Lab Sample ID: 400-123943-43**

Date Collected: 05/19/16 08:55

Matrix: Water

Date Received: 07/09/16 09:13

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0462	U	0.116	0.116	1.00	0.206	pCi/L	07/12/16 16:38	08/03/16 17:30	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	86.3		40 - 110					07/12/16 16:38	08/03/16 17:30	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	0.269	0.269	1.00	0.511	pCi/L	07/12/16 17:07	08/02/16 13:52	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	86.3		40 - 110					07/12/16 17:07	08/02/16 13:52	1
Y Carrier	89.7		40 - 110					07/12/16 17:07	08/02/16 13:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.171	U	0.293	0.293	5.00	0.511	pCi/L		08/04/16 02:09	1

**Client Sample ID: WGWC-9**

**Lab Sample ID: 400-123943-44**

Date Collected: 05/19/16 09:50

Matrix: Water

Date Received: 07/09/16 09:13

**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	0.112	0.113	1.00	0.174	pCi/L	07/12/16 16:38	08/03/16 21:48	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.0		40 - 110					07/12/16 16:38	08/03/16 21:48	1

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Client Sample ID: WGWC-9

Date Collected: 05/19/16 09:50

Date Received: 07/09/16 09:13

## Lab Sample ID: 400-123943-44

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0762	U	0.226	0.226	1.00	0.393	pCi/L	08/03/16 12:56	08/05/16 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					08/03/16 12:56	08/05/16 13:35	1
Y Carrier	86.4		40 - 110					08/03/16 12:56	08/05/16 13:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.209	U	0.252	0.253	5.00	0.393	pCi/L		08/09/16 09:37	1

## Client Sample ID: GWC-34

Date Collected: 05/23/16 12:45

Date Received: 07/09/16 09:13

## Lab Sample ID: 400-123943-45

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	0.0888	U	0.105	0.106	1.00	0.173	pCi/L	07/12/16 16:38	08/03/16 21:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					07/12/16 16:38	08/03/16 21:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.851		0.469	0.476	1.00	0.706	pCi/L	07/12/16 17:07	08/02/16 13:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					07/12/16 17:07	08/02/16 13:52	1
Y Carrier	57.2		40 - 110					07/12/16 17:07	08/02/16 13:52	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	0.939		0.481	0.487	5.00	0.706	pCi/L		08/04/16 02:09	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FD-01(LF)**

**Lab Sample ID: 400-123943-46**

Date Collected: 05/23/16 00:00

Matrix: Water

Date Received: 07/09/16 09:13

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.124	U	0.102	0.103	1.00	0.157	pCi/L	07/12/16 16:38	08/03/16 21:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					07/12/16 16:38	08/03/16 21:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.594		0.286	0.291	1.00	0.419	pCi/L	07/12/16 17:07	08/02/16 13:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					07/12/16 17:07	08/02/16 13:52	1
Y Carrier	92.0		40 - 110					07/12/16 17:07	08/02/16 13:52	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	0.718		0.303	0.308	5.00	0.419	pCi/L		08/04/16 02:09	1

**Client Sample ID: GWA-28**

**Lab Sample ID: 400-123943-47**

Date Collected: 05/23/16 13:30

Matrix: Water

Date Received: 07/09/16 09:13

**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	0.144	0.144	1.00	0.240	pCi/L	07/12/16 16:38	08/03/16 21:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	59.8		40 - 110					07/12/16 16:38	08/03/16 21:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0229	U	0.450	0.450	1.00	0.801	pCi/L	07/12/16 17:07	08/02/16 13:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	59.8		40 - 110					07/12/16 17:07	08/02/16 13:53	1
Y Carrier	86.4		40 - 110					07/12/16 17:07	08/02/16 13:53	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWA-28**

**Date Collected: 05/23/16 13:30**

**Date Received: 07/09/16 09:13**

**Lab Sample ID: 400-123943-47**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0870	U	0.473	0.473	5.00	0.801	pCi/L		08/04/16 02:09	1

**Client Sample ID: GWC-5**

**Date Collected: 05/23/16 15:45**

**Date Received: 07/09/16 09:13**

**Lab Sample ID: 400-123943-48**

**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	0.0275	U	0.100	0.100	1.00	0.183	pCi/L	07/12/16 16:38	08/03/16 21:49	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	87.7		40 - 110					07/12/16 16:38	08/03/16 21:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0240	U	0.288	0.288	1.00	0.518	pCi/L	07/12/16 17:07	08/02/16 13:53	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	87.7		40 - 110					07/12/16 17:07	08/02/16 13:53	1
Y Carrier	83.7		40 - 110					07/12/16 17:07	08/02/16 13:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.00344	U	0.305	0.305	5.00	0.518	pCi/L		08/04/16 02:09	1

**Client Sample ID: WGWC-13**

**Date Collected: 05/19/16 11:15**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-49**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>0.130</b>		0.0697	0.0706	1.00	0.0853	pCi/L	07/08/16 14:24	08/01/16 15:56	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	91.5		40 - 110					07/08/16 14:24	08/01/16 15:56	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Client Sample ID: WGWC-13

Date Collected: 05/19/16 11:15

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-49

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0895	U	0.350	0.350	1.00	0.610	pCi/L	07/08/16 16:55	07/29/16 16:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					07/08/16 16:55	07/29/16 16:10	1
Y Carrier	87.1		40 - 110					07/08/16 16:55	07/29/16 16:10	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	0.357	0.357	5.00	0.610	pCi/L		08/04/16 02:16	1

## Client Sample ID: WGWC-14

Date Collected: 05/19/16 11:25

Date Received: 07/05/16 10:01

## Lab Sample ID: 400-123943-50

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	0.520		0.120	0.129	1.00	0.0911	pCi/L	07/08/16 14:24	08/01/16 15:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/08/16 14:24	08/01/16 15:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.562	U	0.417	0.420	1.00	0.660	pCi/L	07/08/16 16:55	07/29/16 16:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/08/16 16:55	07/29/16 16:11	1
Y Carrier	88.6		40 - 110					07/08/16 16:55	07/29/16 16:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.434	0.440	5.00	0.660	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola



# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-11**

**Lab Sample ID: 400-123943-51**

Date Collected: 05/19/16 14:05

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0310	U	0.0588	0.0588	1.00	0.104	pCi/L	07/08/16 14:24	08/01/16 15:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					07/08/16 14:24	08/01/16 15:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.400	U	0.360	0.362	1.00	0.578	pCi/L	07/08/16 16:55	07/29/16 16:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					07/08/16 16:55	07/29/16 16:11	1
Y Carrier	86.0		40 - 110					07/08/16 16:55	07/29/16 16:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.431	U	0.365	0.367	5.00	0.578	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWC-12**

**Lab Sample ID: 400-123943-52**

Date Collected: 05/19/16 14:35

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130		0.0742	0.0751	1.00	0.0971	pCi/L	07/08/16 14:24	08/01/16 15:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					07/08/16 14:24	08/01/16 15:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0598	U	0.400	0.400	1.00	0.719	pCi/L	07/08/16 16:55	07/29/16 16:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					07/08/16 16:55	07/29/16 16:11	1
Y Carrier	79.6		40 - 110					07/08/16 16:55	07/29/16 16:11	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-12**

**Date Collected: 05/19/16 14:35**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-52**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0698	U	0.406	0.407	5.00	0.719	pCi/L		08/04/16 02:16	1

**Client Sample ID: WGWC-8**

**Date Collected: 05/19/16 12:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-53**

**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	0.306		0.0991	0.103	1.00	0.0978	pCi/L	07/08/16 14:24	08/01/16 15:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.406	U	0.437	0.438	1.00	0.715	pCi/L	07/08/16 16:55	07/29/16 16:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					07/08/16 16:55	07/29/16 16:11	1
Y Carrier	67.7		40 - 110					07/08/16 16:55	07/29/16 16:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.711	U	0.448	0.450	5.00	0.715	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-23**

**Date Collected: 05/25/16 10:30**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-54**

**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	0.0409	U	0.0788	0.0789	1.00	0.137	pCi/L	07/08/16 14:24	08/01/16 15:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					07/08/16 14:24	08/01/16 15:57	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-123943-54**

**Date Collected: 05/25/16 10:30**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0675	U	0.341	0.341	1.00	0.619	pCi/L	07/08/16 16:55	07/29/16 16:11	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	96.3		40 - 110					07/08/16 16:55	07/29/16 16:11	1
Y Carrier	82.2		40 - 110					07/08/16 16:55	07/29/16 16:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0266	U	0.350	0.350	5.00	0.619	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-123943-55**

**Date Collected: 05/25/16 13:45**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0645	U	0.0900	0.0902	1.00	0.151	pCi/L	07/08/16 14:24	08/01/16 15:57	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	91.7		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.205	U	0.331	0.331	1.00	0.558	pCi/L	07/08/16 16:55	07/29/16 16:12	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	91.7		40 - 110					07/08/16 16:55	07/29/16 16:12	1
Y Carrier	90.1		40 - 110					07/08/16 16:55	07/29/16 16:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.269	U	0.343	0.343	5.00	0.558	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-123943-56**

Date Collected: 05/25/16 15:50

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0380	U	0.0758	0.0759	1.00	0.133	pCi/L	07/08/16 14:24	08/01/16 15:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.487	U	0.390	0.393	1.00	0.619	pCi/L	07/08/16 16:55	07/29/16 16:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					07/08/16 16:55	07/29/16 16:12	1
Y Carrier	83.7		40 - 110					07/08/16 16:55	07/29/16 16:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.525	U	0.397	0.400	5.00	0.619	pCi/L		08/04/16 02:16	1

**Client Sample ID: FB-03(LF)**

**Lab Sample ID: 400-123943-57**

Date Collected: 05/25/16 14:30

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0203	U	0.0582	0.0582	1.00	0.122	pCi/L	07/08/16 14:24	08/01/16 15:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0619	U	0.249	0.249	1.00	0.439	pCi/L	07/08/16 16:55	07/29/16 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	87.9		40 - 110					07/08/16 16:55	07/29/16 14:15	1

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# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FB-03(LF)**

**Date Collected: 05/25/16 14:30**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-57**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0416	U	0.256	0.256	5.00	0.439	pCi/L		08/04/16 02:16	1

**Client Sample ID: EB-03(LF)**

**Date Collected: 05/25/16 14:40**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-58**

**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	-0.0429	U	0.0693	0.0694	1.00	0.145	pCi/L	07/08/16 14:24	08/01/16 15:57	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.6		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0432	U	0.229	0.229	1.00	0.407	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.6		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	88.2		40 - 110					07/08/16 16:55	07/29/16 14:15	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	0.000318	U	0.239	0.239	5.00	0.407	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-35**

**Date Collected: 05/25/16 09:50**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-59**

**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	0.0197	U	0.0548	0.0548	1.00	0.101	pCi/L	07/08/16 14:24	08/01/16 15:57	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	94.3		40 - 110					07/08/16 14:24	08/01/16 15:57	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-123943-59**

**Date Collected: 05/25/16 09:50**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.211	U	0.293	0.294	1.00	0.489	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	94.3		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	88.2		40 - 110					07/08/16 16:55	07/29/16 14:15	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	0.231	U	0.298	0.299	5.00	0.489	pCi/L		08/04/16 02:16	1

**Client Sample ID: FD-02(LF)**

**Lab Sample ID: 400-123943-60**

**Date Collected: 05/25/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0417	U	0.0657	0.0658	1.00	0.113	pCi/L	07/08/16 14:24	08/01/16 15:57	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	94.6		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.348	U	0.273	0.275	1.00	0.429	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	94.6		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	78.1		40 - 110					07/08/16 16:55	07/29/16 14:15	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	0.390	U	0.281	0.283	5.00	0.429	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-11**

**Date Collected: 05/25/16 10:07**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-61**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>0.586</b>		0.127	0.137	1.00	0.0822	pCi/L	07/08/16 14:24	08/01/16 15:57	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	93.2		40 - 110					07/08/16 14:24	08/01/16 15:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.565</b>		0.286	0.291	1.00	0.416	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	93.2		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	85.2		40 - 110					07/08/16 16:55	07/29/16 14:15	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
<b>Combined Radium 226 + 228</b>	<b>1.15</b>		0.313	0.322	5.00	0.416	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-12**

**Date Collected: 05/25/16 13:00**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-62**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>1.21</b>		0.178	0.209	1.00	0.105	pCi/L	07/08/16 14:24	08/01/16 15:58	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	93.7		40 - 110					07/08/16 14:24	08/01/16 15:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>2.58</b>		0.458	0.516	1.00	0.468	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	93.7		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	78.5		40 - 110					07/08/16 16:55	07/29/16 14:15	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-12**

**Date Collected: 05/25/16 13:00**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-62**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.79		0.491	0.557	5.00	0.468	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-13**

**Date Collected: 05/25/16 12:03**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-63**

**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	0.0618	U	0.0635	0.0637	1.00	0.100	pCi/L	07/08/16 14:24	08/01/16 16:21	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.3		40 - 110					07/08/16 14:24	08/01/16 16:21	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	0.238	0.238	1.00	0.471	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.3		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	81.1		40 - 110					07/08/16 16:55	07/29/16 14:15	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	-0.151	U	0.246	0.247	5.00	0.471	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-14**

**Date Collected: 05/25/16 12:00**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-64**

**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	0.156		0.103	0.104	1.00	0.153	pCi/L	07/08/16 14:24	08/01/16 16:21	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.6		40 - 110					07/08/16 14:24	08/01/16 16:21	1



# Client Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-123943-64**

Date Collected: 05/25/16 12:00

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.553		0.309	0.313	1.00	0.462	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	90.6		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	81.5		40 - 110					07/08/16 16:55	07/29/16 14:15	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	0.709		0.326	0.330	5.00	0.462	pCi/L		08/04/16 02:16	1

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-123943-65**

Date Collected: 05/25/16 13:37

Matrix: Water

Date Received: 07/05/16 10:01

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0187	U	0.0603	0.0604	1.00	0.111	pCi/L	07/08/16 14:24	08/01/16 16:21	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.9		40 - 110					07/08/16 14:24	08/01/16 16:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.327	U	0.262	0.264	1.00	0.414	pCi/L	07/08/16 16:55	07/29/16 14:15	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.9		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	90.5		40 - 110					07/08/16 16:55	07/29/16 14:15	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	0.346	U	0.269	0.271	5.00	0.414	pCi/L		08/04/16 02:16	1

TestAmerica Pensacola

# Client Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-123943-66**

**Date Collected: 05/25/16 14:10**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0580	U	0.0654	0.0656	1.00	0.106	pCi/L	07/08/16 14:24	08/01/16 16:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					07/08/16 14:24	08/01/16 16:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.174	U	0.249	0.249	1.00	0.417	pCi/L	07/08/16 16:55	07/29/16 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					07/08/16 16:55	07/29/16 14:15	1
Y Carrier	88.2		40 - 110					07/08/16 16:55	07/29/16 14:15	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	0.232	U	0.257	0.258	5.00	0.417	pCi/L		08/04/16 02:16	1

# Definitions/Glossary

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

## 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: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-17**

**Date Collected: 05/25/16 15:17**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:23	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FB-04(LF)**

**Date Collected: 05/26/16 12:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:23	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWA-2**

**Date Collected: 05/24/16 10:15**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:23	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-6**

**Date Collected: 05/24/16 10:09**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:23	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-32**

**Date Collected: 05/24/16 09:55**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:23	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-27**

**Date Collected: 05/24/16 12:45**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:23	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-7**

**Date Collected: 05/24/16 12:24**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:24	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-9**

**Date Collected: 05/24/16 14:15**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:24	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-8**

**Date Collected: 05/24/16 13:40**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:24	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262456	07/28/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FB-02(LF)**

**Date Collected: 05/24/16 15:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:24	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: EB-02(LF)**

**Date Collected: 05/24/16 15:10**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-11**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:24	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWA-7**

**Date Collected: 05/18/16 09:45**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-12**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:24	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Client Sample ID: WGWA-5

Lab Sample ID: 400-123943-13

Date Collected: 05/18/16 09:30

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

## Client Sample ID: WGWA-6

Lab Sample ID: 400-123943-14

Date Collected: 05/18/16 09:30

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

## Client Sample ID: WGWA-3

Lab Sample ID: 400-123943-15

Date Collected: 05/18/16 12:15

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

## Client Sample ID: WGWA-4

Lab Sample ID: 400-123943-16

Date Collected: 05/18/16 12:25

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-17**

**Lab Sample ID: 400-123943-17**

**Date Collected: 05/18/16 12:35**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262774	07/30/16 15:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FD-01(AP)**

**Lab Sample ID: 400-123943-18**

**Date Collected: 05/18/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262784	07/30/16 16:15	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FD-02(AP)**

**Lab Sample ID: 400-123943-19**

**Date Collected: 05/18/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262784	07/30/16 16:15	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWC-16**

**Lab Sample ID: 400-123943-20**

**Date Collected: 05/18/16 14:35**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259596	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9315		1	262784	07/30/16 16:15	ALS	TAL SL
Total/NA	Prep	PrecSep_0			259597	07/07/16 15:59	SCB	TAL SL
Total/NA	Analysis	9320		1	262466	07/28/16 16:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL



# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-15**

**Lab Sample ID: 400-123943-21**

**Date Collected: 05/18/16 14:55**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 07:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWC-10**

**Lab Sample ID: 400-123943-22**

**Date Collected: 05/18/16 15:25**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 07:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: EB-01(AP)**

**Lab Sample ID: 400-123943-23**

**Date Collected: 05/18/16 15:45**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 07:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-123943-24**

**Date Collected: 05/26/16 11:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 07:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Client Sample ID: GWC-19

Lab Sample ID: 400-123943-25

Date Collected: 05/26/16 12:52

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 07:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

## Client Sample ID: GWC-20

Lab Sample ID: 400-123943-26

Date Collected: 05/26/16 10:40

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 07:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

## Client Sample ID: GWC-21

Lab Sample ID: 400-123943-27

Date Collected: 05/26/16 13:10

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

## Client Sample ID: GWC-22

Lab Sample ID: 400-123943-28

Date Collected: 05/26/16 11:25

Matrix: Water

Date Received: 07/05/16 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: EB-04(LF)**

**Lab Sample ID: 400-123943-29**

**Date Collected: 05/26/16 11:55**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FD-04(LF)**

**Lab Sample ID: 400-123943-30**

**Date Collected: 05/26/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FD-03(LF)**

**Lab Sample ID: 400-123943-31**

**Date Collected: 05/26/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWA-1**

**Lab Sample ID: 400-123943-32**

**Date Collected: 05/17/16 11:25**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWA-2**

**Lab Sample ID: 400-123943-33**

**Date Collected: 05/17/16 12:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FB-01(AP)**

**Lab Sample ID: 400-123943-34**

**Date Collected: 05/17/16 12:25**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWA-18**

**Lab Sample ID: 400-123943-35**

**Date Collected: 05/17/16 14:10**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWA-29**

**Lab Sample ID: 400-123943-36**

**Date Collected: 05/19/16 17:10**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWA-4**

**Date Collected: 05/19/16 16:05**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-37**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-30**

**Date Collected: 05/20/16 09:30**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-38**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWA-1**

**Date Collected: 05/20/16 10:10**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-39**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:11	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FB-01(LF)**

**Date Collected: 05/20/16 10:00**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-40**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259755	07/08/16 13:36	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 08:12	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259780	07/08/16 16:52	CMC	TAL SL
Total/NA	Analysis	9320		1	262648	07/29/16 14:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: EB-01(LF)**

**Lab Sample ID: 400-123943-41**

**Date Collected: 05/20/16 10:05**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FB-02(AP)**

**Lab Sample ID: 400-123943-42**

**Date Collected: 05/19/16 09:25**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263351	08/03/16 17:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260212	07/12/16 17:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	263016	08/02/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263374	08/04/16 02:09	ALS	TAL SL

**Client Sample ID: EB-02(AP)**

**Lab Sample ID: 400-123943-43**

**Date Collected: 05/19/16 08:55**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263351	08/03/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260212	07/12/16 17:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	263016	08/02/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263374	08/04/16 02:09	ALS	TAL SL

**Client Sample ID: WGWC-9**

**Lab Sample ID: 400-123943-44**

**Date Collected: 05/19/16 09:50**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263350	08/03/16 21:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263225	08/03/16 12:56	MCJ	TAL SL
Total/NA	Analysis	9320		1	263659	08/05/16 13:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264030	08/09/16 09:37	CAH	TAL SL

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-123943-45**

**Date Collected: 05/23/16 12:45**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263350	08/03/16 21:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260212	07/12/16 17:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	263016	08/02/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263374	08/04/16 02:09	ALS	TAL SL

**Client Sample ID: FD-01(LF)**

**Lab Sample ID: 400-123943-46**

**Date Collected: 05/23/16 00:00**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263350	08/03/16 21:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260212	07/12/16 17:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	263016	08/02/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263374	08/04/16 02:09	ALS	TAL SL

**Client Sample ID: GWA-28**

**Lab Sample ID: 400-123943-47**

**Date Collected: 05/23/16 13:30**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263350	08/03/16 21:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260212	07/12/16 17:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	263016	08/02/16 13:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263374	08/04/16 02:09	ALS	TAL SL

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-123943-48**

**Date Collected: 05/23/16 15:45**

**Matrix: Water**

**Date Received: 07/09/16 09:13**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260210	07/12/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	263350	08/03/16 21:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260212	07/12/16 17:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	263016	08/02/16 13:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263374	08/04/16 02:09	ALS	TAL SL

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-13**

**Lab Sample ID: 400-123943-49**

**Date Collected: 05/19/16 11:15**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWC-14**

**Lab Sample ID: 400-123943-50**

**Date Collected: 05/19/16 11:25**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWC-11**

**Lab Sample ID: 400-123943-51**

**Date Collected: 05/19/16 14:05**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: WGWC-12**

**Lab Sample ID: 400-123943-52**

**Date Collected: 05/19/16 14:35**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL



# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: WGWC-8**

**Lab Sample ID: 400-123943-53**

**Date Collected: 05/19/16 12:05**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-123943-54**

**Date Collected: 05/25/16 10:30**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-123943-55**

**Date Collected: 05/25/16 13:45**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-123943-56**

**Date Collected: 05/25/16 15:50**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262632	07/29/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: FB-03(LF)**

**Lab Sample ID: 400-123943-57**

**Date Collected: 05/25/16 14:30**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: EB-03(LF)**

**Lab Sample ID: 400-123943-58**

**Date Collected: 05/25/16 14:40**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-123943-59**

**Date Collected: 05/25/16 09:50**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: FD-02(LF)**

**Lab Sample ID: 400-123943-60**

**Date Collected: 05/25/16 00:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-123943-61**

**Date Collected: 05/25/16 10:07**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 15:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-123943-62**

**Date Collected: 05/25/16 13:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262859	08/01/16 15:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-123943-63**

**Date Collected: 05/25/16 12:03**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 16:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-123943-64**

**Date Collected: 05/25/16 12:00**

**Matrix: Water**

**Date Received: 07/05/16 10:01**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 16:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

# Lab Chronicle

Client: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

**Client Sample ID: GWC-16**

**Date Collected: 05/25/16 13:37**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-65**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 16:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	TAL SL

**Client Sample ID: GWC-15**

**Date Collected: 05/25/16 14:10**

**Date Received: 07/05/16 10:01**

**Lab Sample ID: 400-123943-66**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259764	07/08/16 14:24	TJT	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 16:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259781	07/08/16 16:55	CMC	TAL SL
Total/NA	Analysis	9320		1	262649	07/29/16 14:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263375	08/04/16 02:16	ALS	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: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Rad

### Prep Batch: 259596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-1	GWC-17	Total/NA	Water	PrecSep-21	
400-123943-2	FB-04(LF)	Total/NA	Water	PrecSep-21	
400-123943-3	GWA-2	Total/NA	Water	PrecSep-21	
400-123943-4	GWC-6	Total/NA	Water	PrecSep-21	
400-123943-5	GWC-32	Total/NA	Water	PrecSep-21	
400-123943-6	GWC-27	Total/NA	Water	PrecSep-21	
400-123943-7	GWC-7	Total/NA	Water	PrecSep-21	
400-123943-8	GWC-9	Total/NA	Water	PrecSep-21	
400-123943-9	GWC-8	Total/NA	Water	PrecSep-21	
400-123943-10	FB-02(LF)	Total/NA	Water	PrecSep-21	
400-123943-11	EB-02(LF)	Total/NA	Water	PrecSep-21	
400-123943-12	WGWA-7	Total/NA	Water	PrecSep-21	
400-123943-13	WGWA-5	Total/NA	Water	PrecSep-21	
400-123943-14	WGWA-6	Total/NA	Water	PrecSep-21	
400-123943-15	WGWA-3	Total/NA	Water	PrecSep-21	
400-123943-16	WGWA-4	Total/NA	Water	PrecSep-21	
400-123943-17	WGWC-17	Total/NA	Water	PrecSep-21	
400-123943-18	FD-01(AP)	Total/NA	Water	PrecSep-21	
400-123943-19	FD-02(AP)	Total/NA	Water	PrecSep-21	
400-123943-20	WGWC-16	Total/NA	Water	PrecSep-21	
MB 160-259596/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259596/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-123943-10 DU	FB-02(LF)	Total/NA	Water	PrecSep-21	

### Prep Batch: 259597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-1	GWC-17	Total/NA	Water	PrecSep_0	
400-123943-2	FB-04(LF)	Total/NA	Water	PrecSep_0	
400-123943-3	GWA-2	Total/NA	Water	PrecSep_0	
400-123943-4	GWC-6	Total/NA	Water	PrecSep_0	
400-123943-5	GWC-32	Total/NA	Water	PrecSep_0	
400-123943-6	GWC-27	Total/NA	Water	PrecSep_0	
400-123943-7	GWC-7	Total/NA	Water	PrecSep_0	
400-123943-8	GWC-9	Total/NA	Water	PrecSep_0	
400-123943-9	GWC-8	Total/NA	Water	PrecSep_0	
400-123943-10	FB-02(LF)	Total/NA	Water	PrecSep_0	
400-123943-11	EB-02(LF)	Total/NA	Water	PrecSep_0	
400-123943-12	WGWA-7	Total/NA	Water	PrecSep_0	
400-123943-13	WGWA-5	Total/NA	Water	PrecSep_0	
400-123943-14	WGWA-6	Total/NA	Water	PrecSep_0	
400-123943-15	WGWA-3	Total/NA	Water	PrecSep_0	
400-123943-16	WGWA-4	Total/NA	Water	PrecSep_0	
400-123943-17	WGWC-17	Total/NA	Water	PrecSep_0	
400-123943-18	FD-01(AP)	Total/NA	Water	PrecSep_0	
400-123943-19	FD-02(AP)	Total/NA	Water	PrecSep_0	
400-123943-20	WGWC-16	Total/NA	Water	PrecSep_0	
MB 160-259597/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259597/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-123943-10 DU	FB-02(LF)	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

# QC Association Summary

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Rad (Continued)

### Prep Batch: 259755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-21	WGWC-15	Total/NA	Water	PrecSep-21	
400-123943-22	WGWC-10	Total/NA	Water	PrecSep-21	
400-123943-23	EB-01(AP)	Total/NA	Water	PrecSep-21	
400-123943-24	GWC-18	Total/NA	Water	PrecSep-21	
400-123943-25	GWC-19	Total/NA	Water	PrecSep-21	
400-123943-26	GWC-20	Total/NA	Water	PrecSep-21	
400-123943-27	GWC-21	Total/NA	Water	PrecSep-21	
400-123943-28	GWC-22	Total/NA	Water	PrecSep-21	
400-123943-29	EB-04(LF)	Total/NA	Water	PrecSep-21	
400-123943-30	FD-04(LF)	Total/NA	Water	PrecSep-21	
400-123943-31	FD-03(LF)	Total/NA	Water	PrecSep-21	
400-123943-32	WGWA-1	Total/NA	Water	PrecSep-21	
400-123943-33	WGWA-2	Total/NA	Water	PrecSep-21	
400-123943-34	FB-01(AP)	Total/NA	Water	PrecSep-21	
400-123943-35	WGWA-18	Total/NA	Water	PrecSep-21	
400-123943-36	GWA-29	Total/NA	Water	PrecSep-21	
400-123943-37	GWA-4	Total/NA	Water	PrecSep-21	
400-123943-38	GWC-30	Total/NA	Water	PrecSep-21	
400-123943-39	GWA-1	Total/NA	Water	PrecSep-21	
400-123943-40	FB-01(LF)	Total/NA	Water	PrecSep-21	
MB 160-259755/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259755/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-123943-25 DU	GWC-19	Total/NA	Water	PrecSep-21	

### Prep Batch: 259764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-41	EB-01(LF)	Total/NA	Water	PrecSep-21	
400-123943-49	WGWC-13	Total/NA	Water	PrecSep-21	
400-123943-50	WGWC-14	Total/NA	Water	PrecSep-21	
400-123943-51	WGWC-11	Total/NA	Water	PrecSep-21	
400-123943-52	WGWC-12	Total/NA	Water	PrecSep-21	
400-123943-53	WGWC-8	Total/NA	Water	PrecSep-21	
400-123943-54	GWC-23	Total/NA	Water	PrecSep-21	
400-123943-55	GWC-25	Total/NA	Water	PrecSep-21	
400-123943-56	GWC-26	Total/NA	Water	PrecSep-21	
400-123943-57	FB-03(LF)	Total/NA	Water	PrecSep-21	
400-123943-58	EB-03(LF)	Total/NA	Water	PrecSep-21	
400-123943-59	GWC-35	Total/NA	Water	PrecSep-21	
400-123943-60	FD-02(LF)	Total/NA	Water	PrecSep-21	
400-123943-61	GWC-11	Total/NA	Water	PrecSep-21	
400-123943-62	GWC-12	Total/NA	Water	PrecSep-21	
400-123943-63	GWC-13	Total/NA	Water	PrecSep-21	
400-123943-64	GWC-14	Total/NA	Water	PrecSep-21	
400-123943-65	GWC-16	Total/NA	Water	PrecSep-21	
400-123943-66	GWC-15	Total/NA	Water	PrecSep-21	
MB 160-259764/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259764/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-123943-52 DU	WGWC-12	Total/NA	Water	PrecSep-21	

TestAmerica Pensacola

# QC Association Summary

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Rad (Continued)

### Prep Batch: 259780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-21	WGWC-15	Total/NA	Water	PrecSep_0	
400-123943-22	WGWC-10	Total/NA	Water	PrecSep_0	
400-123943-23	EB-01(AP)	Total/NA	Water	PrecSep_0	
400-123943-24	GWC-18	Total/NA	Water	PrecSep_0	
400-123943-25	GWC-19	Total/NA	Water	PrecSep_0	
400-123943-26	GWC-20	Total/NA	Water	PrecSep_0	
400-123943-27	GWC-21	Total/NA	Water	PrecSep_0	
400-123943-28	GWC-22	Total/NA	Water	PrecSep_0	
400-123943-29	EB-04(LF)	Total/NA	Water	PrecSep_0	
400-123943-30	FD-04(LF)	Total/NA	Water	PrecSep_0	
400-123943-31	FD-03(LF)	Total/NA	Water	PrecSep_0	
400-123943-32	WGWA-1	Total/NA	Water	PrecSep_0	
400-123943-33	WGWA-2	Total/NA	Water	PrecSep_0	
400-123943-34	FB-01(AP)	Total/NA	Water	PrecSep_0	
400-123943-35	WGWA-18	Total/NA	Water	PrecSep_0	
400-123943-36	GWA-29	Total/NA	Water	PrecSep_0	
400-123943-37	GWA-4	Total/NA	Water	PrecSep_0	
400-123943-38	GWC-30	Total/NA	Water	PrecSep_0	
400-123943-39	GWA-1	Total/NA	Water	PrecSep_0	
400-123943-40	FB-01(LF)	Total/NA	Water	PrecSep_0	
MB 160-259780/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259780/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-123943-25 DU	GWC-19	Total/NA	Water	PrecSep_0	

### Prep Batch: 259781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-41	EB-01(LF)	Total/NA	Water	PrecSep_0	
400-123943-49	WGWC-13	Total/NA	Water	PrecSep_0	
400-123943-50	WGWC-14	Total/NA	Water	PrecSep_0	
400-123943-51	WGWC-11	Total/NA	Water	PrecSep_0	
400-123943-52	WGWC-12	Total/NA	Water	PrecSep_0	
400-123943-53	WGWC-8	Total/NA	Water	PrecSep_0	
400-123943-54	GWC-23	Total/NA	Water	PrecSep_0	
400-123943-55	GWC-25	Total/NA	Water	PrecSep_0	
400-123943-56	GWC-26	Total/NA	Water	PrecSep_0	
400-123943-57	FB-03(LF)	Total/NA	Water	PrecSep_0	
400-123943-58	EB-03(LF)	Total/NA	Water	PrecSep_0	
400-123943-59	GWC-35	Total/NA	Water	PrecSep_0	
400-123943-60	FD-02(LF)	Total/NA	Water	PrecSep_0	
400-123943-61	GWC-11	Total/NA	Water	PrecSep_0	
400-123943-62	GWC-12	Total/NA	Water	PrecSep_0	
400-123943-63	GWC-13	Total/NA	Water	PrecSep_0	
400-123943-64	GWC-14	Total/NA	Water	PrecSep_0	
400-123943-65	GWC-16	Total/NA	Water	PrecSep_0	
400-123943-66	GWC-15	Total/NA	Water	PrecSep_0	
MB 160-259781/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259781/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-123943-52 DU	WGWC-12	Total/NA	Water	PrecSep_0	

# QC Association Summary

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## Rad (Continued)

### Prep Batch: 260210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-42	FB-02(AP)	Total/NA	Water	PrecSep-21	
400-123943-43	EB-02(AP)	Total/NA	Water	PrecSep-21	
400-123943-44	WGWC-9	Total/NA	Water	PrecSep-21	
400-123943-45	GWC-34	Total/NA	Water	PrecSep-21	
400-123943-46	FD-01(LF)	Total/NA	Water	PrecSep-21	
400-123943-47	GWA-28	Total/NA	Water	PrecSep-21	
400-123943-48	GWC-5	Total/NA	Water	PrecSep-21	
MB 160-260210/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-260210/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-260210/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 260212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-42	FB-02(AP)	Total/NA	Water	PrecSep_0	
400-123943-43	EB-02(AP)	Total/NA	Water	PrecSep_0	
400-123943-45	GWC-34	Total/NA	Water	PrecSep_0	
400-123943-46	FD-01(LF)	Total/NA	Water	PrecSep_0	
400-123943-47	GWA-28	Total/NA	Water	PrecSep_0	
400-123943-48	GWC-5	Total/NA	Water	PrecSep_0	
MB 160-260212/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-260212/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-260212/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Prep Batch: 263225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123943-44	WGWC-9	Total/NA	Water	PrecSep_0	
MB 160-263225/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-263225/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-263225/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	



# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: MB 160-259596/1-A**  
**Matrix: Water**  
**Analysis Batch: 262774**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259596**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03380	U	0.0974	0.0974	1.00	0.177	pCi/L	07/07/16 15:59	07/30/16 15:22	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	83.8					07/07/16 15:59	07/30/16 15:22	1		

**Lab Sample ID: LCS 160-259596/2-A**  
**Matrix: Water**  
**Analysis Batch: 262774**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259596**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	12.24		1.28	1.00	0.135	pCi/L	110	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	97.4								

**Lab Sample ID: 400-123943-10 DU**  
**Matrix: Water**  
**Analysis Batch: 262774**

**Client Sample ID: FB-02(LF)**  
**Prep Type: Total/NA**  
**Prep Batch: 259596**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.0932	U	-0.01054	U	0.0805	1.00	0.169	pCi/L	0.35	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	74.1									

**Lab Sample ID: MB 160-259755/1-A**  
**Matrix: Water**  
**Analysis Batch: 262856**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259755**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.07753	U	0.0684	0.0688	1.00	0.104	pCi/L	07/08/16 13:36	08/01/16 07:58	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	92.3					07/08/16 13:36	08/01/16 07:58	1		

**Lab Sample ID: LCS 160-259755/2-A**  
**Matrix: Water**  
**Analysis Batch: 262856**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259755**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	13.75		1.38	1.00	0.0972	pCi/L	123	68 - 137

TestAmerica Pensacola

# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: LCS 160-259755/2-A**  
**Matrix: Water**  
**Analysis Batch: 262856**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259755**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	94.6		40 - 110

**Lab Sample ID: 400-123943-25 DU**  
**Matrix: Water**  
**Analysis Batch: 262856**

**Client Sample ID: GWC-19**  
**Prep Type: Total/NA**  
**Prep Batch: 259755**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0773	U	0.1307		0.0836	1.00	0.114	pCi/L	0.30	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.5		40 - 110

**Lab Sample ID: MB 160-259764/1-A**  
**Matrix: Water**  
**Analysis Batch: 262857**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259764**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04062	U	0.0381	0.0382	1.00	0.102	pCi/L	07/08/16 14:24	08/01/16 15:56	1

	MB	MB	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	88.3		40 - 110

	Prepared	Analyzed	Dil Fac
Ba Carrier	07/08/16 14:24	08/01/16 15:56	1

**Lab Sample ID: LCS 160-259764/2-A**  
**Matrix: Water**  
**Analysis Batch: 262857**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259764**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	12.48		1.26	1.00	0.134	pCi/L	112	68 - 137

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.0		40 - 110

**Lab Sample ID: 400-123943-52 DU**  
**Matrix: Water**  
**Analysis Batch: 262857**

**Client Sample ID: WGWC-12**  
**Prep Type: Total/NA**  
**Prep Batch: 259764**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.130		0.02841	U	0.0804	1.00	0.143	pCi/L	0.65	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	94.6		40 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: MB 160-260210/1-A**  
**Matrix: Water**  
**Analysis Batch: 263198**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 260210**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.05586	U	0.131	0.131	1.00	0.231	pCi/L	07/12/16 16:38	08/03/16 17:15	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	79.8		40 - 110		07/12/16 16:38	08/03/16 17:15	1			

**Lab Sample ID: LCS 160-260210/2-A**  
**Matrix: Water**  
**Analysis Batch: 263198**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 260210**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	13.95		1.45	1.00	0.146	pCi/L	125	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	89.2		40 - 110		07/12/16 16:38	08/03/16 17:15	1		

**Lab Sample ID: LCSD 160-260210/3-A**  
**Matrix: Water**  
**Analysis Batch: 263198**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 260210**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.2	14.44		1.49	1.00	0.210	pCi/L	129	68 - 137	0.17	1
Carrier	LCSD LCSD		Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	%Yield	Qualifier	Limits								
Ba Carrier	87.2		40 - 110		07/07/16 15:59	07/28/16 16:09	1				

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

**Lab Sample ID: MB 160-259597/1-A**  
**Matrix: Water**  
**Analysis Batch: 262456**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259597**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.08494	U	0.265	0.265	1.00	0.485	pCi/L	07/07/16 15:59	07/28/16 16:09	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	83.8		40 - 110		07/07/16 15:59	07/28/16 16:09	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	86.0		40 - 110		07/07/16 15:59	07/28/16 16:09	1			

TestAmerica Pensacola

# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: LCS 160-259597/2-A**  
**Matrix: Water**  
**Analysis Batch: 262456**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259597**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	16.72		1.77	1.00	0.434	pCi/L	113	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.4		40 - 110
Y Carrier	85.2		40 - 110

**Lab Sample ID: 400-123943-10 DU**  
**Matrix: Water**  
**Analysis Batch: 262466**

**Client Sample ID: FB-02(LF)**  
**Prep Type: Total/NA**  
**Prep Batch: 259597**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.508	U	-0.1110	U	0.289	1.00	0.534	pCi/L	0.70	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	74.1		40 - 110
Y Carrier	86.4		40 - 110

**Lab Sample ID: MB 160-259780/1-A**  
**Matrix: Water**  
**Analysis Batch: 262649**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259780**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08071	U	0.266	0.266	1.00	0.463	pCi/L	07/08/16 16:52	07/29/16 14:17	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110	07/08/16 16:52	07/29/16 14:17	1
Y Carrier	84.5		40 - 110	07/08/16 16:52	07/29/16 14:17	1

**Lab Sample ID: LCS 160-259780/2-A**  
**Matrix: Water**  
**Analysis Batch: 262649**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259780**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	17.32		1.87	1.00	0.462	pCi/L	117	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.6		40 - 110
Y Carrier	83.0		40 - 110

# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: 400-123943-25 DU**  
**Matrix: Water**  
**Analysis Batch: 262649**

**Client Sample ID: GWC-19**  
**Prep Type: Total/NA**  
**Prep Batch: 259780**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.209	U	0.4480	U	0.371	1.00	0.586	pCi/L	0.37	1
<b>DU DU</b>										
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>							
Ba Carrier	87.5		40 - 110							
Y Carrier	71.0		40 - 110							

**Lab Sample ID: MB 160-259781/1-A**  
**Matrix: Water**  
**Analysis Batch: 262632**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259781**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07473	U	0.413	0.413	1.00	0.746	pCi/L	07/08/16 16:55	07/29/16 16:10	1
<b>MB MB</b>										
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>		<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.3		40 - 110				07/08/16 16:55		07/29/16 16:10	1
Y Carrier	77.0		40 - 110				07/08/16 16:55		07/29/16 16:10	1

**Lab Sample ID: LCS 160-259781/2-A**  
**Matrix: Water**  
**Analysis Batch: 262632**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259781**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	18.13		2.00	1.00	0.631	pCi/L	123	56 - 140
<b>LCS LCS</b>									
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>						
Ba Carrier	92.0		40 - 110						
Y Carrier	90.8		40 - 110						

**Lab Sample ID: 400-123943-52 DU**  
**Matrix: Water**  
**Analysis Batch: 262632**

**Client Sample ID: WGWC-12**  
**Prep Type: Total/NA**  
**Prep Batch: 259781**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.0598	U	-0.1563	U	0.311	1.00	0.582	pCi/L	0.14	1
<b>DU DU</b>										
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>							
Ba Carrier	94.6		40 - 110							
Y Carrier	90.5		40 - 110							

# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: MB 160-260212/1-A**  
**Matrix: Water**  
**Analysis Batch: 263018**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 260212**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3177	U	0.280	0.282	1.00	0.447	pCi/L	07/12/16 17:07	08/02/16 13:57	1
<b>Carrier</b>	<b>%Yield</b>	<b>MB Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.8		40 - 110					07/12/16 17:07	08/02/16 13:57	1
Y Carrier	87.1		40 - 110					07/12/16 17:07	08/02/16 13:57	1

**Lab Sample ID: LCS 160-260212/2-A**  
**Matrix: Water**  
**Analysis Batch: 263018**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 260212**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	16.46		1.78	1.00	0.491	pCi/L	111	56 - 140
<b>Carrier</b>	<b>%Yield</b>	<b>LCS Qualifier</b>	<b>Limits</b>						
Ba Carrier	89.2		40 - 110						
Y Carrier	89.3		40 - 110						

**Lab Sample ID: LCSD 160-260212/3-A**  
**Matrix: Water**  
**Analysis Batch: 263018**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 260212**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.8	16.82		1.82	1.00	0.455	pCi/L	114	56 - 140	0.10	1
<b>Carrier</b>	<b>%Yield</b>	<b>LCSD Qualifier</b>	<b>Limits</b>								
Ba Carrier	87.2		40 - 110								
Y Carrier	87.5		40 - 110								

**Lab Sample ID: MB 160-263225/1-A**  
**Matrix: Water**  
**Analysis Batch: 263659**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263225**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2371	U	0.186	0.187	1.00	0.292	pCi/L	08/03/16 12:56	08/05/16 13:35	1
<b>Carrier</b>	<b>%Yield</b>	<b>MB Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	111	X	40 - 110					08/03/16 12:56	08/05/16 13:35	1
Y Carrier	86.4		40 - 110					08/03/16 12:56	08/05/16 13:35	1

TestAmerica Pensacola

# QC Sample Results

Client: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

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

**Lab Sample ID: LCS 160-263225/2-A**  
**Matrix: Water**  
**Analysis Batch: 263659**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263225**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	15.29		1.66	1.00	0.378	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.0		40 - 110
Y Carrier	89.3		40 - 110

**Lab Sample ID: LCSD 160-263225/3-A**  
**Matrix: Water**  
**Analysis Batch: 263659**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 263225**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.8	16.09		1.74	1.00	0.410	pCi/L	109	56 - 140	0.23	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	87.2		40 - 110
Y Carrier	84.9		40 - 110



400-123943 COC



# TRANSFER OF SAMPLES

## Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

Sample Delivery Group No. 103672

Lab Contact: <b>Jolynn Locke</b>		Project Name: <b>Wansley CCR</b>		Vendor Laboratory Name and Address <b>Test America 3355 McLemore Drive Pensacola, FL 32514 850-474-1001</b>	
Email Results To: <a href="mailto:jlocke@southernco.com">jlocke@southernco.com</a>				Date of Sample Transfer <b>6-30-16</b>	
Turnaround Time: (or expected date of results) <b>21 days</b>		Rush Charges Authorized: Yes No x Signature:			
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested
5/25/2016	15:17	1	GWC-17	103672001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined
5/26/2016	12:05	1	FB-04(LF)	103672002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined

Received By: *[Signature]*

Date / Time: **7/5/16 10:01**

Comments: *Linda Taylor*  
Samples preserved with HNO3 to <2 pH

*Wansley CCR* 7/9/16 8913

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# Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

# TRANSFER OF SAMPLES



Sample Delivery Group No. 103622

Lab Contact:		Project Name:		Vendor Laboratory Name and Address		Analysis Requested	Remarks
Jolynn Locke		Wansley CCR		Test America 3355 McLeMORE Drive Pensacola, FL 32514 850-474-1001			
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Date of Sample Transfer		
5/24/2016	10:15	1	GWA-2	103622001	6-30-16		
5/24/2016	10:09	1	GWC-6	103622002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	9:55	1	GWC-32	103622003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	12:45	1	GWC-27	103622004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	12:24	1	GWC-7	103622005	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	14:15	1	GWC-9	103622006	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	13:40	1	GWC-8	103622007	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	15:05	1	FB-02(LF)	103622008	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/24/2016	15:10	1	EB-02(LF)	103622009	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
Transfer By (Signature):						Received By:	
<i>Link Pastor</i>						<i>[Signature]</i>	
Comments:		Samples preserved with HNO3 to <2 pH				Date / Time: 7/5/16 1001	

*Chyghubk* 7/9/16 0913





TRANSFER OF SAMPLES

Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

Sample Delivery Group No. 103479

Lab Contact:	Project Name:	Vendor Laboratory Name and Address	Date of Sample Transfer		Analysis Requested	Remarks
Jolynn Locke	Wansley CCR	Test America 3355 McLeMORE Drive Pensacola, FL 32514 850-474-1001	6-30-16			
Email Results To: joklocke@southernco.com						
Turnaround Time: (or expected date of results)						
21 days						
Rush Charges Authorized: Yes No x		Signature:				
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/18/2016	9:45	1	WGWA-7	103479001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	9:30	1	WGWA-5	103479002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	9:30	1	WGWA-6	103479003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	12:15	1	WGWA-3	103479004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	12:25	1	WGWA-4	103479005	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	12:35	1	WGWC-17	103479006	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016		1	FD-01(AP)	103479007	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016		1	FD-02(AP)	103479008	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	14:35	1	WGWC-16	103479009	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	14:55	1	WGWC-15	103479010	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	15:25	1	WGWC-10	103479011	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/18/2016	15:45	1	EB-01(AP)	103479012	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
Transfer By (Signature):						
<i>Lincoln Dutton</i>						
Comments: (Samples preserved with HNO3 to <2 pH)						
Received By:		<i>[Signature]</i>				
Date / Time:		7/5/16 1001				
		<i>[Signature]</i> 7/9/16 0913				



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**TRANSFER OF SAMPLES**

**Environmental Laboratory**

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

Sample Delivery Group No. 103671

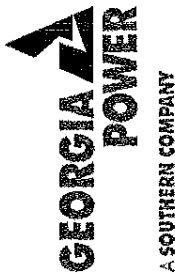
<b>Lab Contact:</b> Jolynn Locke		<b>Project Name:</b> Wansley CCR		<b>Vendor Laboratory Name and Address:</b> Test America 3355 McLemore Drive Pensacola, FL 32514 850-474-1001		
<b>Email Results To:</b> joklocke@southernco.com		<b>Turnaround Time:</b> (or expected date of results) 21 days		<b>Date of Sample Transfer:</b> 6-30-16		
Rush Charges Authorized: Yes No x Signature:						
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/26/2016	11:00	1	GWC-18	103671001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016	12:52	1	GWC-19	103671002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016	10:40	1	GWC-20	103671003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016	13:10	1	GWC-21	103671004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016	11:25	1	GWC-22	103671005	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016	11:55	1	EB-04 (LF)	103671006	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016		1	FD-04(LF)	103671007	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/26/2016		1	FD-03(LF)	103671008	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
Transfer By (Signature): <i>Wansley CCR</i>						
Received By: <i>[Signature]</i>						
Date / Time: 7/9/16 1001						
Comments: Samples preserved with HNO3 to <2 pH						

*Wansley CCR*  
7/9/16 0913



**Environmental Laboratory**  
 2480 Maner Road, Bin 39110  
 Atlanta, Georgia 30339

**TRANSFER OF SAMPLES**



Phone: (404) 799-2100 Fax: (404) 799-2141

Sample Delivery Group No. 103466

Lab Contact:		Project Name:		Vendor Laboratory Name and Address		Analysis Requested	Remarks
Jolynn Locke		Wansley CCR		Test America 3355 McLemore Drive Pensacola, FL 32514 850-474-1001			
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Date of Sample Transfer		
5/17/2016	11:25	1	WGWA-1	103466001	6-30-16		
5/17/2016	12:00	1	WGWA-2	103466002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/17/2016	12:25	1	FB-01 (AP)	103466003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/17/2016	14:10	1	WGWA-18	103466004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		

Rush Charges Authorized: Yes No x Signature: \_\_\_\_\_

21 days

Transfer By (Signature): *Linda Patton*

Received By: *[Signature]*

Date / Time: 7/5/16 1001

Comments: Samples preserved with HNO3 to <2 pH



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### Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

### TRANSFER OF SAMPLES



Sample Delivery Group No. 103531

Lab Contact: <b>Jolynn Locke</b>		Project Name: <b>Wansley CCR</b>		Vendor Laboratory Name and Address: <b>Test America 3355 McLemore Drive Pensacola, FL 32514 850-474-1001</b>			
Email Results To: <a href="mailto:jlocke@southernco.com">jlocke@southernco.com</a>		Turnaround Time: (or expected date of results) <b>21 days</b>		Date of Sample Transfer: <b>6-30-16</b>			
Rush Charges Authorized: Yes No x				Signature:			
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks	
5/19/2016	17:10	1	GWA-29	103531001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/19/2016	16:05	1	GWA-4	103531002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/20/2016	9:30	1	GWC-30	103531003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/20/2016	10:10	1	GWA-1	103531004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/20/2016	10:00	1	FB-01(LF)	103531005	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/20/2016	10:05	1	EB-01(LF)	103531006	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
Transfer By (Signature): <i>[Signature]</i>							
Received By: <i>[Signature]</i>							
Date / Time: 7/5/16 1001							
Comments: Samples preserved with HNO3 to <2 pH							

*[Handwritten Signature]* 7/9/16 0913

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### Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

### TRANSFER OF SAMPLES



Sample Delivery Group No. 103506

Lab Contact: <b>Jolynn Locke</b>		Project Name: <b>Wansley CCR</b>		Vendor Laboratory Name and Address: <b>Test America 3355 McLemore Drive Pensacola, FL 32514 850-474-1001</b>	
Email Results To: <u>jlocke@southernco.com</u>		Turnaround Time: (or expected date of results) <b>21 days</b>		Date of Sample Transfer <b>6-30-16</b>	
Rush Charges Authorized: Yes No x		Signature:		Analysis Requested	

Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/19/2016	9:25	1	FB-02(AP)	103506001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/19/2016	8:55	1	EB-02(AP)	103506002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/19/2016	9:50	1	WGWC-9	103506003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	

Received By: *[Signature]*  
Date / Time: *7/5/16 1001*  
*Clayton 7/19/16 0913*

Transfer By (Signature): *[Signature]*  
Comments: Samples preserved with HNO3 to <2 pH

# Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

# TRANSFER OF SAMPLES



Sample Delivery Group No. 103630

**Lab Contact:** Jolynn Locke  
**Email Results To:** joklocke@southernco.com  
**Turnaround Time:** (or expected date of results) 21 days  
**Rush Charges Authorized:** Yes No x  
**Signature:**

**Project Name:** Wansley CCR

**Vendor Laboratory Name and Address:**  
 Test America  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 850-474-1001

**Date of Sample Transfer:** 6-30-16

Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/23/2016	12:45	1	GWC-34	103630001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/23/2016		1	FD-01(LF)	103630002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/23/2016	13:30	1	GWA-28	103630003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/23/2016	15:45	1	GWC-5	103630004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	

**Transfer By (Signature):**  
*Kimberly Ruston*

**Received By:** *[Signature]*

**Date / Time:** 7/15/16 1001

**Comments:** Samples preserved with HNO3 to <2 pH

*[Signature]* 7/9/16 0913



# TRANSFER OF SAMPLES

## Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100 Fax: (404) 799-2141



Sample Delivery Group No. 103530

<b>Lab Contact:</b> Jolynn Locke		<b>Project Name:</b> Wansley CCR		<b>Vendor Laboratory Name and Address:</b> Test America 3355 McLemore Drive Pensacola, FL 32514 850-474-1001	
Email Results To: jlocke@southernco.com				Date of Sample Transfer 6-30-16	
Turnaround Time: (or expected date of results)					
<b>21 days</b>					
Rush Charges Authorized: Yes No x Signature:					

Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/19/2016	11:15	1	WGWC-13	103530001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/19/2016	11:25	1	WGWC-14	103530002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/19/2016	14:05	1	WGWC-11	103530003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/19/2016	14:35	1	WGWC-12	103530004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	
5/19/2016	12:05	1	WGWC-8	103530005	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined	

Transfer By (Signature): *[Signature]*

Received By: *[Signature]*

Date / Time: 7/5/16 1001

Comments: Samples preserved with HNO3 to <2 pH

*[Handwritten Signature]* 7/9/16 0913





# Environmental Laboratory

2480 Maner Road, Bin 39110  
Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

# TRANSFER OF SAMPLES



Sample Delivery Group No. 103647

Lab Contact:		Project Name:		Vendor Laboratory Name and Address		Analysis Requested	Remarks
Jolynn Locke		Wansley CCR		Test America 3355 McLeMORE Drive Pensacola, FL 32514 850-474-1001			
Email Results To: joklocke@southernco.com		Turnaround Time: (or expected date of results)		Date of Sample Transfer			
21 days		Rush Charges Authorized: Yes No x		Signature:		6-30-16	
Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks	
5/25/2016	10:30	1	GWC-23	103647001	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	13:45	1	GWC-25	103647002	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	15:50	1	GWC-26	103647003	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	14:30	1	FB-03(LF)	103647004	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	14:40	1	EB-03(LF)	103647005	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	9:50	1	GWC-35	103647006	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016		1	FD-02(LF)	103647007	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	10:07	1	GWC-11	103647008	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	13:00	1	GWC-12	103647009	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	12:03	1	GWC-13	103647010	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	12:00	1	GWC-14	103647011	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	13:37	1	GWC-16	103647012	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		
5/25/2016	14:10	1	GWC-15	103647013	Radium 226 SW-864 #9315/Radium 228 SW-846 #9320/Ra Combined		

Transfer By (Signature): *[Signature]*  
 Received By: *[Signature]*  
 Date / Time: 7/5/16 1001  
*[Signature]* 7/9/16 0913

Comments: Samples preserved with HNO3 to <2 pH



# Login Sample Receipt Checklist

Client: Georgia Power - Environmental Lab

Job Number: 400-123943-1

**Login Number: 123943**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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.	N/A	
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: Georgia Power - Environmental Lab  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

## 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	07-31-16 *
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: Georgia Power - Environmental Lab  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-123943-1

## 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	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

\* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

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Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-124841-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

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Authorized for release by:

8/11/2016 3:33:01 PM

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### LINKS

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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**Job ID: 400-124841-1**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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### Job Narrative 400-124841-1

#### Metals

Method(s) 3005A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with an initial pH of >2: GWC-30 (400-124841-7). The sample was preserved to the appropriate pH in the laboratory.

Method(s) 6020: The matrix spike duplicate (MSD) recovery and %RPD for preparation batch 315750 and analytical batch 315911 were outside control limits for Boron. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 7470A: The method blank for prep batch 315392 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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Client Sample ID: GWA-1

## Lab Sample ID: 400-124841-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0087		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.60		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000097	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-124841-2

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	2.8		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.7		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

## Client Sample ID: GWC-5

## Lab Sample ID: 400-124841-3

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	0.11	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	17		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0011	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0079		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0015	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00025	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000076	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: GWA-29

## Lab Sample ID: 400-124841-4

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
Fluoride	3.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0013	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.0038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0021	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	4.7		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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Client Sample ID: GWA-29 (Continued)

## Lab Sample ID: 400-124841-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.044		0.0050	0.0032	mg/L	5		6020	Total
Molybdenum	0.0039	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00045	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-2 (LF)

## Lab Sample ID: 400-124841-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.18	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000081	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-34

## Lab Sample ID: 400-124841-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.19	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000084	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-124841-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		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	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0067		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.9		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	0.00030	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000086	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-6

## Lab Sample ID: 400-124841-8

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Client Sample ID: GWC-6 (Continued)

## Lab Sample ID: 400-124841-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		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
Sulfate	16		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	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.010		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0038	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000091	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-3 (LF)

## Lab Sample ID: 400-124841-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		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
Sulfate	16		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00046	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0039	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000086	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-1 (LF)

## Lab Sample ID: 400-124841-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		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	0.14		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0062		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00010	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-124841-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	10		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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
 SDG: Landfill

**Client Sample ID: GWA-4 (Continued)**

**Lab Sample ID: 400-124841-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.14		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0058		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000087	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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124841-1	GWA-1	Water	07/21/16 13:02	07/22/16 09:12
400-124841-2	GWC-35	Water	07/21/16 12:40	07/22/16 09:12
400-124841-3	GWC-5	Water	07/21/16 14:40	07/22/16 09:12
400-124841-4	GWA-29	Water	07/21/16 12:05	07/22/16 09:12
400-124841-5	FD-2 (LF)	Water	07/21/16 00:00	07/22/16 09:12
400-124841-6	GWC-34	Water	07/21/16 10:40	07/22/16 09:12
400-124841-7	GWC-30	Water	07/21/16 10:25	07/22/16 09:12
400-124841-8	GWC-6	Water	07/21/16 14:10	07/22/16 09:12
400-124841-9	FD-3 (LF)	Water	07/21/16 00:00	07/22/16 09:12
400-124841-10	FD-1 (LF)	Water	07/21/16 00:00	07/22/16 09:12
400-124841-11	GWA-4	Water	07/21/16 10:30	07/22/16 09:12

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 07/21/16 13:02**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			07/22/16 22:00	1
Fluoride	<0.082		0.20	0.082	mg/L			07/22/16 22:00	1
Sulfate	<0.70		1.0	0.70	mg/L			07/22/16 22:00	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		07/26/16 09:00	07/26/16 16:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 09:00	07/26/16 16:31	5
<b>Barium</b>	<b>0.0087</b>		0.0025	0.00049	mg/L		07/26/16 09:00	07/26/16 16:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/27/16 14:30	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 09:00	07/27/16 14:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/26/16 16:31	5
<b>Calcium</b>	<b>0.60</b>		0.25	0.13	mg/L		07/26/16 09:00	07/26/16 16:31	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 09:00	07/26/16 16:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 09:00	07/26/16 16:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 09:00	07/26/16 16:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 09:00	07/27/16 14:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 09:00	07/26/16 16:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 09:00	07/26/16 16:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 09:00	07/26/16 16:31	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000097</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:01	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>14</b>		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWC-35**  
**Date Collected: 07/21/16 12:40**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.4</b>		1.0	0.89	mg/L			07/25/16 20:19	1
Fluoride	<0.082		0.20	0.082	mg/L			07/25/16 20:19	1
<b>Sulfate</b>	<b>2.8</b>		1.0	0.70	mg/L			07/25/16 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		07/26/16 09:00	07/26/16 16:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 09:00	07/26/16 16:35	5
<b>Barium</b>	<b>0.019</b>		0.0025	0.00049	mg/L		07/26/16 09:00	07/26/16 16:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/27/16 14:34	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 09:00	07/27/16 14:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/26/16 16:35	5
<b>Calcium</b>	<b>1.7</b>		0.25	0.13	mg/L		07/26/16 09:00	07/26/16 16:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 09:00	07/26/16 16:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 09:00	07/26/16 16:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 09:00	07/26/16 16:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 09:00	07/27/16 14:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 09:00	07/26/16 16:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 09:00	07/26/16 16:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 09:00	07/26/16 16:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>36</b>		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 07/21/16 14:40**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-3**  
**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			07/22/16 22:22	1
Fluoride	0.11	J	0.20	0.082	mg/L			07/22/16 22:22	1
Sulfate	17		1.0	0.70	mg/L			07/22/16 22:22	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		07/26/16 09:00	07/26/16 16:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 09:00	07/26/16 16:40	5
Barium	0.018		0.0025	0.00049	mg/L		07/26/16 09:00	07/26/16 16:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/27/16 14:39	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 09:00	07/27/16 14:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/26/16 16:40	5
Calcium	21		0.25	0.13	mg/L		07/26/16 09:00	07/26/16 16:40	5
Chromium	0.0011	J	0.0025	0.0011	mg/L		07/26/16 09:00	07/26/16 16:40	5
Cobalt	0.0079		0.0025	0.00040	mg/L		07/26/16 09:00	07/26/16 16:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 09:00	07/26/16 16:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 09:00	07/27/16 14:39	5
Molybdenum	0.0015	J	0.015	0.00085	mg/L		07/26/16 09:00	07/26/16 16:40	5
Selenium	0.00025	J	0.0013	0.00024	mg/L		07/26/16 09:00	07/26/16 16:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 09:00	07/26/16 16:40	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000076	J B	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:15	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			07/25/16 17:26	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWA-29**

**Date Collected: 07/21/16 12:05**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-4**

**Matrix: Water**

### 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			07/22/16 22:45	1
Fluoride	3.2		0.20	0.082	mg/L			07/22/16 22:45	1
Sulfate	13		1.0	0.70	mg/L			07/22/16 22:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0013	J	0.0025	0.0010	mg/L		07/26/16 10:52	07/26/16 17:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:11	5
Barium	0.0038		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:11	5
Beryllium	0.0021	J	0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 14:48	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 14:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:11	5
Calcium	4.7		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:11	5
Lithium	0.044		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 14:48	5
Molybdenum	0.0039	J	0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:11	5
Selenium	0.00045	J	0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:11	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		07/22/16 13:09	07/25/16 12:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: FD-2 (LF)**

**Date Collected: 07/21/16 00:00**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-5**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			07/22/16 23:08	1
Fluoride	0.18	J	0.20	0.082	mg/L			07/22/16 23:08	1
Sulfate	1.5		1.0	0.70	mg/L			07/22/16 23:08	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		07/26/16 10:52	07/26/16 17:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:16	5
Barium	0.011		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 14:52	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 14:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:16	5
Calcium	2.5		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 14:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:16	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		07/22/16 13:09	07/25/16 12:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWC-34**

**Date Collected: 07/21/16 10:40**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-6**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			07/25/16 21:28	1
Fluoride	0.19	J	0.20	0.082	mg/L			07/25/16 21:28	1
Sulfate	1.6		1.0	0.70	mg/L			07/25/16 21:28	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		07/26/16 10:52	07/26/16 17:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:20	5
Barium	0.011		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 14:57	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 14:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:20	5
Calcium	2.6		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:20	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:20	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 14:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:20	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000084	J B	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWC-30**

**Date Collected: 07/21/16 10:25**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-7**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			07/25/16 21:51	1
Fluoride	0.11	J	0.20	0.082	mg/L			07/25/16 21:51	1
Sulfate	1.3		1.0	0.70	mg/L			07/25/16 21:51	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		07/27/16 07:45	07/27/16 17:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/27/16 07:45	07/27/16 17:25	5
Barium	0.0067		0.0025	0.00049	mg/L		07/27/16 07:45	07/27/16 17:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/27/16 07:45	07/27/16 17:25	5
Boron	<0.021		0.050	0.021	mg/L		07/27/16 07:45	07/27/16 17:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 07:45	07/27/16 17:25	5
Calcium	2.9		0.25	0.13	mg/L		07/27/16 07:45	07/27/16 17:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 07:45	07/27/16 17:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/27/16 07:45	07/27/16 17:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 07:45	07/27/16 17:25	5
Lithium	0.0038	J	0.0050	0.0032	mg/L		07/27/16 07:45	07/27/16 17:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/27/16 07:45	07/27/16 17:25	5
Selenium	0.00030	J	0.0013	0.00024	mg/L		07/27/16 07:45	07/27/16 17:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 07:45	07/27/16 17:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000086	J B	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 07/21/16 14:10**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-8**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.89	mg/L			07/25/16 22:59	1
Fluoride	0.088	J	0.20	0.082	mg/L			07/25/16 22:59	1
Sulfate	16		1.0	0.70	mg/L			07/25/16 22:59	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		07/26/16 10:52	07/26/16 17:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:25	5
Barium	0.049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 15:01	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 15:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:25	5
Calcium	12		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:25	5
Cobalt	0.010		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:25	5
Lithium	0.0038	J	0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 15:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000091	J B	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: FD-3 (LF)**

**Date Collected: 07/21/16 00:00**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-9**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.89	mg/L			07/25/16 23:22	1
Fluoride	0.088	J	0.20	0.082	mg/L			07/25/16 23:22	1
Sulfate	16		1.0	0.70	mg/L			07/25/16 23:22	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		07/26/16 10:52	07/26/16 17:29	5
Arsenic	0.00046	J	0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:29	5
Barium	0.048		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 15:06	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 15:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:29	5
Calcium	12		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:29	5
Cobalt	0.011		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:29	5
Lithium	0.0039	J	0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 15:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:29	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000086	J B	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:23	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: FD-1 (LF)**

**Lab Sample ID: 400-124841-10**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>17</b>		1.0	0.89	mg/L			07/25/16 23:45	1
Fluoride	<0.082		0.20	0.082	mg/L			07/25/16 23:45	1
<b>Sulfate</b>	<b>11</b>		1.0	0.70	mg/L			07/25/16 23:45	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		07/26/16 10:52	07/26/16 17:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:34	5
<b>Barium</b>	<b>0.14</b>		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 15:10	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 15:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:34	5
<b>Calcium</b>	<b>29</b>		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:34	5
<b>Cobalt</b>	<b>0.0062</b>		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 15:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00010</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:34	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>160</b>		5.0	3.4	mg/L			07/25/16 17:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 07/21/16 10:30**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-11**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>17</b>		1.0	0.89	mg/L			07/26/16 00:08	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/16 00:08	1
<b>Sulfate</b>	<b>10</b>		1.0	0.70	mg/L			07/26/16 00:08	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		07/26/16 10:52	07/26/16 17:38	5
<b>Arsenic</b>	<b>0.00062</b>	<b>J</b>	0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:38	5
<b>Barium</b>	<b>0.14</b>		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 15:28	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 15:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:38	5
<b>Calcium</b>	<b>30</b>		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:38	5
<b>Cobalt</b>	<b>0.0058</b>		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 15:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:38	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000087</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/22/16 13:09	07/25/16 12:35	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>170</b>		5.0	3.4	mg/L			07/25/16 17:26	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
E	Result exceeded calibration range.
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.

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

## 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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWA-1**

**Date Collected: 07/21/16 13:02**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315549	07/22/16 22:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315426	07/26/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 16:31	GKP	TAL PEN
Total Recoverable	Prep	3005A			315426	07/26/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 14:30	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: GWC-35**

**Date Collected: 07/21/16 12:40**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/25/16 20:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315426	07/26/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 16:35	GKP	TAL PEN
Total Recoverable	Prep	3005A			315426	07/26/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 14:34	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: GWC-5**

**Date Collected: 07/21/16 14:40**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315549	07/22/16 22:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315426	07/26/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 16:40	GKP	TAL PEN
Total Recoverable	Prep	3005A			315426	07/26/16 09:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 14:39	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWA-29**

**Lab Sample ID: 400-124841-4**

**Date Collected: 07/21/16 12:05**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315549	07/22/16 22:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:11	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 14:48	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: FD-2 (LF)**

**Lab Sample ID: 400-124841-5**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315549	07/22/16 23:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:16	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 14:52	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-124841-6**

**Date Collected: 07/21/16 10:40**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/25/16 21:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:20	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 14:57	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-124841-7**

**Date Collected: 07/21/16 10:25**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/25/16 21:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315418	07/27/16 07:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 17:25	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-124841-8**

**Date Collected: 07/21/16 14:10**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/25/16 22:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:25	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 15:01	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: FD-3 (LF)**

**Lab Sample ID: 400-124841-9**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/25/16 23:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:29	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 15:06	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: FD-1 (LF)**

**Lab Sample ID: 400-124841-10**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/25/16 23:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

**Client Sample ID: FD-1 (LF)**

**Lab Sample ID: 400-124841-10**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:34	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 15:10	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	TET	TAL PEN

**Client Sample ID: GWA-4**

**Lab Sample ID: 400-124841-11**

**Date Collected: 07/21/16 10:30**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/26/16 00:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 17:38	GKP	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316086	07/27/16 15:28	RJB	TAL PEN
Total/NA	Prep	7470A			315392	07/22/16 13:09	DN1	TAL PEN
Total/NA	Analysis	7470A		1	315624	07/25/16 12:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315644	07/25/16 17:26	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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 315549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total/NA	Water	300.0	
400-124841-3	GWC-5	Total/NA	Water	300.0	
400-124841-4	GWA-29	Total/NA	Water	300.0	
400-124841-5	FD-2 (LF)	Total/NA	Water	300.0	
MB 400-315549/4	Method Blank	Total/NA	Water	300.0	
LCS 400-315549/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-315549/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-124652-A-18 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-124776-D-6 MS	Matrix Spike	Total/NA	Water	300.0	

### Analysis Batch: 315700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-2	GWC-35	Total/NA	Water	300.0	
400-124841-6	GWC-34	Total/NA	Water	300.0	
400-124841-7	GWC-30	Total/NA	Water	300.0	
400-124841-8	GWC-6	Total/NA	Water	300.0	
400-124841-9	FD-3 (LF)	Total/NA	Water	300.0	
400-124841-10	FD-1 (LF)	Total/NA	Water	300.0	
400-124841-11	GWA-4	Total/NA	Water	300.0	
MB 400-315700/3	Method Blank	Total/NA	Water	300.0	
LCS 400-315700/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-315700/5	Lab Control Sample Dup	Total/NA	Water	300.0	
400-124841-2 MS	GWC-35	Total/NA	Water	300.0	
400-124841-2 MSD	GWC-35	Total/NA	Water	300.0	

## Metals

### Prep Batch: 315392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total/NA	Water	7470A	
400-124841-2	GWC-35	Total/NA	Water	7470A	
400-124841-3	GWC-5	Total/NA	Water	7470A	
400-124841-4	GWA-29	Total/NA	Water	7470A	
400-124841-5	FD-2 (LF)	Total/NA	Water	7470A	
400-124841-6	GWC-34	Total/NA	Water	7470A	
400-124841-7	GWC-30	Total/NA	Water	7470A	
400-124841-8	GWC-6	Total/NA	Water	7470A	
400-124841-9	FD-3 (LF)	Total/NA	Water	7470A	
400-124841-10	FD-1 (LF)	Total/NA	Water	7470A	
400-124841-11	GWA-4	Total/NA	Water	7470A	
MB 400-315392/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-315392/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-124841-1 MS	GWA-1	Total/NA	Water	7470A	
400-124841-1 MSD	GWA-1	Total/NA	Water	7470A	

### Prep Batch: 315418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-7	GWC-30	Total Recoverable	Water	3005A	
MB 400-315418/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-315418/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Metals (Continued)

### Prep Batch: 315418 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124711-D-1-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124711-D-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 315426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total Recoverable	Water	3005A	
400-124841-2	GWC-35	Total Recoverable	Water	3005A	
400-124841-3	GWC-5	Total Recoverable	Water	3005A	
MB 400-315426/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-315426/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124804-C-1-C MS ^5 - F	Matrix Spike	Total Recoverable	Water	3005A	
400-124804-C-1-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124804-C-1-D MSD ^5 -	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-124804-C-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 315624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total/NA	Water	7470A	315392
400-124841-2	GWC-35	Total/NA	Water	7470A	315392
400-124841-3	GWC-5	Total/NA	Water	7470A	315392
400-124841-4	GWA-29	Total/NA	Water	7470A	315392
400-124841-5	FD-2 (LF)	Total/NA	Water	7470A	315392
400-124841-6	GWC-34	Total/NA	Water	7470A	315392
400-124841-7	GWC-30	Total/NA	Water	7470A	315392
400-124841-8	GWC-6	Total/NA	Water	7470A	315392
400-124841-9	FD-3 (LF)	Total/NA	Water	7470A	315392
400-124841-10	FD-1 (LF)	Total/NA	Water	7470A	315392
400-124841-11	GWA-4	Total/NA	Water	7470A	315392
MB 400-315392/14-A	Method Blank	Total/NA	Water	7470A	315392
LCS 400-315392/15-A	Lab Control Sample	Total/NA	Water	7470A	315392
400-124841-1 MS	GWA-1	Total/NA	Water	7470A	315392
400-124841-1 MSD	GWA-1	Total/NA	Water	7470A	315392

### Prep Batch: 315750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-4	GWA-29	Total Recoverable	Water	3005A	
400-124841-5	FD-2 (LF)	Total Recoverable	Water	3005A	
400-124841-6	GWC-34	Total Recoverable	Water	3005A	
400-124841-8	GWC-6	Total Recoverable	Water	3005A	
400-124841-9	FD-3 (LF)	Total Recoverable	Water	3005A	
400-124841-10	FD-1 (LF)	Total Recoverable	Water	3005A	
400-124841-11	GWA-4	Total Recoverable	Water	3005A	
MB 400-315750/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-315750/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124852-D-5-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124852-D-5-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 315911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total Recoverable	Water	6020	315426
400-124841-2	GWC-35	Total Recoverable	Water	6020	315426

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Metals (Continued)

### Analysis Batch: 315911 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-3	GWC-5	Total Recoverable	Water	6020	315426
400-124841-4	GWA-29	Total Recoverable	Water	6020	315750
400-124841-5	FD-2 (LF)	Total Recoverable	Water	6020	315750
400-124841-6	GWC-34	Total Recoverable	Water	6020	315750
400-124841-8	GWC-6	Total Recoverable	Water	6020	315750
400-124841-9	FD-3 (LF)	Total Recoverable	Water	6020	315750
400-124841-10	FD-1 (LF)	Total Recoverable	Water	6020	315750
400-124841-11	GWA-4	Total Recoverable	Water	6020	315750
MB 400-315426/1-A ^5	Method Blank	Total Recoverable	Water	6020	315426
MB 400-315750/1-A ^5	Method Blank	Total Recoverable	Water	6020	315750
LCS 400-315426/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315426
LCS 400-315750/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315750
400-124804-C-1-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	315426
400-124804-C-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	315426
400-124852-D-5-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	315750
400-124852-D-5-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	315750

### Analysis Batch: 316086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total Recoverable	Water	6020	315426
400-124841-2	GWC-35	Total Recoverable	Water	6020	315426
400-124841-3	GWC-5	Total Recoverable	Water	6020	315426
400-124841-4	GWA-29	Total Recoverable	Water	6020	315750
400-124841-5	FD-2 (LF)	Total Recoverable	Water	6020	315750
400-124841-6	GWC-34	Total Recoverable	Water	6020	315750
400-124841-7	GWC-30	Total Recoverable	Water	6020	315418
400-124841-8	GWC-6	Total Recoverable	Water	6020	315750
400-124841-9	FD-3 (LF)	Total Recoverable	Water	6020	315750
400-124841-10	FD-1 (LF)	Total Recoverable	Water	6020	315750
400-124841-11	GWA-4	Total Recoverable	Water	6020	315750
MB 400-315418/1-A ^5	Method Blank	Total Recoverable	Water	6020	315418
MB 400-315750/1-A ^5	Method Blank	Total Recoverable	Water	6020	315750
LCS 400-315418/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315418
LCS 400-315750/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315750
400-124711-D-1-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	315418
400-124711-D-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	315418
400-124804-C-1-C MS ^5 - F	Matrix Spike	Total Recoverable	Water	6020	315426
400-124804-C-1-D MSD ^5 -	Matrix Spike Duplicate	Total Recoverable	Water	6020	315426

## General Chemistry

### Analysis Batch: 315644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total/NA	Water	SM 2540C	
400-124841-2	GWC-35	Total/NA	Water	SM 2540C	
400-124841-3	GWC-5	Total/NA	Water	SM 2540C	
400-124841-4	GWA-29	Total/NA	Water	SM 2540C	
400-124841-5	FD-2 (LF)	Total/NA	Water	SM 2540C	
400-124841-6	GWC-34	Total/NA	Water	SM 2540C	
400-124841-7	GWC-30	Total/NA	Water	SM 2540C	

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## General Chemistry (Continued)

### Analysis Batch: 315644 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-8	GWC-6	Total/NA	Water	SM 2540C	
400-124841-9	FD-3 (LF)	Total/NA	Water	SM 2540C	
400-124841-10	FD-1 (LF)	Total/NA	Water	SM 2540C	
400-124841-11	GWA-4	Total/NA	Water	SM 2540C	
MB 400-315644/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-315644/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124841-2 DU	GWC-35	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-315549/4**  
**Matrix: Water**  
**Analysis Batch: 315549**

**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			07/22/16 12:52	1
Fluoride	<0.082		0.20	0.082	mg/L			07/22/16 12:52	1
Sulfate	<0.70		1.0	0.70	mg/L			07/22/16 12:52	1

**Lab Sample ID: LCS 400-315549/5**  
**Matrix: Water**  
**Analysis Batch: 315549**

**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	10.9		mg/L		109	90 - 110
Sulfate	10.0	9.98		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-315549/6**  
**Matrix: Water**  
**Analysis Batch: 315549**

**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	9.90		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	1	15
Sulfate	10.0	9.93		mg/L		99	90 - 110	0	15

**Lab Sample ID: 400-124652-A-18 MSD**  
**Matrix: Water**  
**Analysis Batch: 315549**

**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	3900		1000	5000	E	mg/L		110	80 - 120	0	20
Fluoride	<8.2		1000	1180		mg/L		118	80 - 120	0	20
Sulfate	110		1000	1220		mg/L		111	80 - 120	2	20

**Lab Sample ID: 400-124776-D-6 MS**  
**Matrix: Water**  
**Analysis Batch: 315549**

**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	3.0	F1	10.0	15.8	F1	mg/L		128	80 - 120
Fluoride	11	F1	10.0	23.8	F1	mg/L		125	80 - 120
Sulfate	27		10.0	37.9		mg/L		110	80 - 120

**Lab Sample ID: MB 400-315700/3**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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			07/25/16 18:25	1
Fluoride	<0.082		0.20	0.082	mg/L			07/25/16 18:25	1
Sulfate	<0.70		1.0	0.70	mg/L			07/25/16 18:25	1

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-315700/4**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	9.98		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-315700/5**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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	9.65		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	9.86		mg/L		99	90 - 110	1	15

**Lab Sample ID: 400-124841-2 MS**  
**Matrix: Water**  
**Analysis Batch: 315700**

**Client Sample ID: GWC-35**  
**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	14.8		mg/L		104	80 - 120
Fluoride	<0.082		10.0	11.5		mg/L		115	80 - 120
Sulfate	2.8		10.0	13.8		mg/L		109	80 - 120

**Lab Sample ID: 400-124841-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 315700**

**Client Sample ID: GWC-35**  
**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	14.8		mg/L		104	80 - 120	0	20
Fluoride	<0.082		10.0	11.5		mg/L		115	80 - 120	0	20
Sulfate	2.8		10.0	13.8		mg/L		110	80 - 120	1	20

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

**Lab Sample ID: MB 400-315418/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315418**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/26/16 08:30	07/27/16 17:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 08:30	07/27/16 17:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 08:30	07/27/16 17:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 08:30	07/27/16 17:16	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 08:30	07/27/16 17:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 08:30	07/27/16 17:16	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 08:30	07/27/16 17:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 08:30	07/27/16 17:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 08:30	07/27/16 17:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 08:30	07/27/16 17:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 08:30	07/27/16 17:16	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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

**Lab Sample ID: MB 400-315418/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315418**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 08:30	07/27/16 17:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 08:30	07/27/16 17:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 08:30	07/27/16 17:16	5

**Lab Sample ID: LCS 400-315418/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315418**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0461		mg/L		92	80 - 120
Beryllium	0.0500	0.0478		mg/L		96	80 - 120
Boron	0.100	0.0997		mg/L		100	80 - 120
Cadmium	0.0500	0.0474		mg/L		95	80 - 120
Calcium	5.00	4.73		mg/L		95	80 - 120
Chromium	0.0500	0.0494		mg/L		99	80 - 120
Cobalt	0.0500	0.0475		mg/L		95	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0475		mg/L		95	80 - 120
Molybdenum	0.0500	0.0498		mg/L		100	80 - 120
Selenium	0.0500	0.0507		mg/L		101	80 - 120
Thallium	0.0100	0.00974		mg/L		97	80 - 120

**Lab Sample ID: 400-124711-D-1-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315418**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0533		mg/L		107	75 - 125
Arsenic	<0.00046		0.0500	0.0540		mg/L		108	75 - 125
Barium	0.0072		0.0500	0.0529		mg/L		91	75 - 125
Beryllium	<0.00034		0.0500	0.0475		mg/L		95	75 - 125
Boron	0.092		0.100	0.195		mg/L		103	75 - 125
Cadmium	<0.00034		0.0500	0.0490		mg/L		98	75 - 125
Calcium	0.82		5.00	5.57		mg/L		95	75 - 125
Chromium	<0.0011		0.0500	0.0506		mg/L		101	75 - 125
Cobalt	<0.00040		0.0500	0.0487		mg/L		97	75 - 125
Lead	<0.00035		0.0500	0.0476		mg/L		95	75 - 125
Lithium	0.0067		0.0500	0.0531		mg/L		93	75 - 125
Molybdenum	<0.00085		0.0500	0.0501		mg/L		100	75 - 125
Selenium	<0.00024		0.0500	0.0500		mg/L		100	75 - 125
Thallium	<0.000085		0.0100	0.00982		mg/L		98	75 - 125

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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

**Lab Sample ID: 400-124711-D-1-D MSD ^5**

**Matrix: Water**

**Analysis Batch: 316086**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 315418**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0518		mg/L		104	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0532		mg/L		106	75 - 125	2	20
Barium	0.0072		0.0500	0.0538		mg/L		93	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0459		mg/L		92	75 - 125	3	20
Boron	0.092		0.100	0.189		mg/L		97	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0480		mg/L		96	75 - 125	2	20
Calcium	0.82		5.00	5.53		mg/L		94	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0503		mg/L		101	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0491		mg/L		98	75 - 125	1	20
Lead	<0.00035		0.0500	0.0477		mg/L		95	75 - 125	0	20
Lithium	0.0067		0.0500	0.0522		mg/L		91	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0493		mg/L		99	75 - 125	2	20
Selenium	<0.00024		0.0500	0.0507		mg/L		101	75 - 125	2	20
Thallium	<0.00085		0.0100	0.00971		mg/L		97	75 - 125	1	20

**Lab Sample ID: MB 400-315426/1-A ^5**

**Matrix: Water**

**Analysis Batch: 315911**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 315426**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/26/16 09:00	07/26/16 15:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 09:00	07/26/16 15:30	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 09:00	07/26/16 15:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/26/16 15:30	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 09:00	07/26/16 15:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 09:00	07/26/16 15:30	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 09:00	07/26/16 15:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 09:00	07/26/16 15:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 09:00	07/26/16 15:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 09:00	07/26/16 15:30	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 09:00	07/26/16 15:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 09:00	07/26/16 15:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 09:00	07/26/16 15:30	5
Thallium	<0.00085		0.00050	0.000085	mg/L		07/26/16 09:00	07/26/16 15:30	5

**Lab Sample ID: LCS 400-315426/2-A ^1**

**Matrix: Water**

**Analysis Batch: 315911**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 315426**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0524		mg/L		105	80 - 120
Arsenic	0.0500	0.0546		mg/L		109	80 - 120
Barium	0.0500	0.0477		mg/L		95	80 - 120
Beryllium	0.0500	0.0470		mg/L		94	80 - 120
Boron	0.100	0.0984		mg/L		98	80 - 120
Cadmium	0.0500	0.0500		mg/L		100	80 - 120
Calcium	5.00	4.69		mg/L		94	80 - 120
Chromium	0.0500	0.0495		mg/L		99	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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

**Lab Sample ID: LCS 400-315426/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315426**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0485		mg/L		97	80 - 120
Lead	0.0500	0.0493		mg/L		99	80 - 120
Lithium	0.0500	0.0477		mg/L		95	80 - 120
Molybdenum	0.0500	0.0502		mg/L		100	80 - 120
Selenium	0.0500	0.0508		mg/L		102	80 - 120
Thallium	0.0100	0.00987		mg/L		99	80 - 120

**Lab Sample ID: 400-124804-C-1-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315426**

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	0.0014		0.0500	0.0583		mg/L		114	75 - 125
Barium	0.096		0.0500	0.145		mg/L		100	75 - 125
Cadmium	<0.00034		0.0500	0.0496		mg/L		99	75 - 125
Calcium	17		5.00	21.5		mg/L		99	75 - 125
Chromium	<0.0011		0.0500	0.0508		mg/L		102	75 - 125
Cobalt	0.0069		0.0500	0.0575		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0500		mg/L		100	75 - 125
Molybdenum	<0.00085		0.0500	0.0529		mg/L		106	75 - 125
Selenium	<0.00024		0.0500	0.0524		mg/L		105	75 - 125
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125

**Lab Sample ID: 400-124804-C-1-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315426**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0523		mg/L		105	75 - 125	3	20
Arsenic	0.0014		0.0500	0.0567		mg/L		111	75 - 125	3	20
Barium	0.096		0.0500	0.141		mg/L		92	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0503		mg/L		101	75 - 125	1	20
Calcium	17		5.00	21.0		mg/L		88	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0493		mg/L		99	75 - 125	3	20
Cobalt	0.0069		0.0500	0.0552		mg/L		96	75 - 125	4	20
Lead	<0.00035		0.0500	0.0491		mg/L		98	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0507		mg/L		101	75 - 125	4	20
Selenium	<0.00024		0.0500	0.0510		mg/L		102	75 - 125	3	20
Thallium	<0.00085		0.0100	0.0100		mg/L		100	75 - 125	2	20

**Lab Sample ID: MB 400-315750/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/26/16 10:52	07/26/16 17:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:02	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:02	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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

**Lab Sample ID: MB 400-315750/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:02	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:02	5

**Lab Sample ID: MB 400-315750/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 14:07	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 14:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 14:07	5

**Lab Sample ID: LCS 400-315750/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0522		mg/L		104	80 - 120
Arsenic	0.0500	0.0558		mg/L		112	80 - 120
Barium	0.0500	0.0466		mg/L		93	80 - 120
Cadmium	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	4.70		mg/L		94	80 - 120
Chromium	0.0500	0.0500		mg/L		100	80 - 120
Cobalt	0.0500	0.0494		mg/L		99	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Molybdenum	0.0500	0.0516		mg/L		103	80 - 120
Selenium	0.0500	0.0510		mg/L		102	80 - 120
Thallium	0.0100	0.0100		mg/L		100	80 - 120

**Lab Sample ID: LCS 400-315750/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Lithium	0.0500	0.0471		mg/L		94	80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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

**Lab Sample ID: 400-124852-D-5-E MS ^5**

**Matrix: Water**

**Analysis Batch: 315911**

**Client Sample ID: Matrix Spike**

**Prep Type: Total Recoverable**

**Prep Batch: 315750**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	
	Result			Result					Limits	Limits
Antimony	<0.0010		0.0500	0.0527		mg/L		105	75 - 125	
Arsenic	0.044		0.0500	0.101		mg/L		114	75 - 125	
Barium	0.037		0.0500	0.0818		mg/L		90	75 - 125	
Beryllium	<0.00034		0.0500	0.0436		mg/L		87	75 - 125	
Boron	<0.021	F1 F2	0.100	0.0834		mg/L		83	75 - 125	
Cadmium	<0.00034		0.0500	0.0473		mg/L		95	75 - 125	
Calcium	2.1		5.00	6.99		mg/L		97	75 - 125	
Chromium	<0.0011		0.0500	0.0502		mg/L		100	75 - 125	
Cobalt	0.019		0.0500	0.0679		mg/L		98	75 - 125	
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125	
Lithium	<0.0032		0.0500	0.0449		mg/L		90	75 - 125	
Molybdenum	<0.00085		0.0500	0.0524		mg/L		105	75 - 125	
Selenium	<0.00024		0.0500	0.0530		mg/L		106	75 - 125	
Thallium	<0.000085		0.0100	0.00987		mg/L		99	75 - 125	

**Lab Sample ID: 400-124852-D-5-F MSD ^5**

**Matrix: Water**

**Analysis Batch: 315911**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 315750**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
	Result			Result					Limits	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0510		mg/L		102	75 - 125	3	20	
Arsenic	0.044		0.0500	0.101		mg/L		115	75 - 125	0	20	
Barium	0.037		0.0500	0.0821		mg/L		91	75 - 125	0	20	
Beryllium	<0.00034		0.0500	0.0416		mg/L		83	75 - 125	5	20	
Boron	<0.021	F1 F2	0.100	0.0674	F1 F2	mg/L		67	75 - 125	21	20	
Cadmium	<0.00034		0.0500	0.0464		mg/L		93	75 - 125	2	20	
Calcium	2.1		5.00	6.84		mg/L		94	75 - 125	2	20	
Chromium	<0.0011		0.0500	0.0510		mg/L		102	75 - 125	2	20	
Cobalt	0.019		0.0500	0.0680		mg/L		98	75 - 125	0	20	
Lead	<0.00035		0.0500	0.0488		mg/L		98	75 - 125	2	20	
Lithium	<0.0032		0.0500	0.0410		mg/L		82	75 - 125	9	20	
Molybdenum	<0.00085		0.0500	0.0520		mg/L		104	75 - 125	1	20	
Selenium	<0.00024		0.0500	0.0520		mg/L		104	75 - 125	2	20	
Thallium	<0.000085		0.0100	0.00979		mg/L		98	75 - 125	1	20	

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

**Lab Sample ID: 400-124804-C-1-C MS ^5**

**Matrix: Water**

**Analysis Batch: 316086**

**Client Sample ID: Matrix Spike**

**Prep Type: Total Recoverable**

**Prep Batch: 315426**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	
	Result			Result					Limits	Limits
Beryllium - RA	<0.00034		0.0500	0.0503		mg/L		101	75 - 125	
Boron - RA	0.024	J	0.100	0.124		mg/L		100	75 - 125	
Lithium - RA	<0.0032		0.0500	0.0499		mg/L		100	75 - 125	

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

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

**Lab Sample ID: 400-124804-C-1-D MSD ^5**

**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315426**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Beryllium - RA	<0.00034		0.0500	0.0487		mg/L		97	75 - 125	3	20
Boron - RA	0.024	J	0.100	0.124		mg/L		100	75 - 125	0	20
Lithium - RA	<0.0032		0.0500	0.0499		mg/L		100	75 - 125	0	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-315392/14-A**

**Matrix: Water**  
**Analysis Batch: 315624**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 315392**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000918	J	0.00020	0.000070	mg/L		07/22/16 11:48	07/25/16 11:57	1

**Lab Sample ID: LCS 400-315392/15-A**

**Matrix: Water**  
**Analysis Batch: 315624**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 315392**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000926		mg/L		92	80 - 120

**Lab Sample ID: 400-124841-1 MS**

**Matrix: Water**  
**Analysis Batch: 315624**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**  
**Prep Batch: 315392**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000097	J B	0.00201	0.00186		mg/L		88	80 - 120

**Lab Sample ID: 400-124841-1 MSD**

**Matrix: Water**  
**Analysis Batch: 315624**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**  
**Prep Batch: 315392**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000097	J B	0.00201	0.00187		mg/L		88	80 - 120	0	20

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

**Lab Sample ID: MB 400-315644/1**

**Matrix: Water**  
**Analysis Batch: 315644**

**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			07/25/16 17:26	1

**Lab Sample ID: LCS 400-315644/2**

**Matrix: Water**  
**Analysis Batch: 315644**

**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	286		mg/L		98	78 - 122

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-1  
 SDG: Landfill

**Lab Sample ID: 400-124841-2 DU**  
**Matrix: Water**  
**Analysis Batch: 315644**

**Client Sample ID: GWC-35**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	36		36.0		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

**TestAmerica Pensacola**  
3355 McLemore Drive  
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**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: **labraham@southernco.com**  
Project Name: **CCR Plant Wansley**  
Site: **Landfill**

Sampler: **Colder**  
Lab P/N: **Whitmore, Cheyenne R**  
E-Mail: **cheyenne.whitmore@testamericainc.com**

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Job #:

Analysis Requested: **APP III + IV**  
**913 Ra226, 9320 Ra228**  
**6020, 7170A**  
**9540C - Total Dissolved Solids**  
**11, F504, EPA300**

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, D=dust, A=air)	Preservation Code
GWA-1	7/21/16	1302	G	Water	W
GW C-35	7/21/16	1240	G	Water	W
GW C-5	7/21/16	1440	G	Water	W
GWA-29	7/21/16	1205	G	Water	W
FD-2 (LF)	7/21/16	—	G	Water	W
GW C-34	7/21/16	1040	G	Water	W
GW C-30	7/21/16	1025	G	Water	W
GW C-6	7/21/16	1410	G	Water	W
FD-3 (LF)	7/21/16	—	G	Water	W
FD-1 (LF)	7/21/16	—	G	Water	W
GWA-4	7/21/16	1030	G	Water	W

Preservation Codes:  
A - HCL  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - MeOH  
G - Amchlor  
H - Ascorbic Acid  
I - Ice  
J - DI Water  
K - EDTA  
L - EDA  
Other:  
M - Hexane  
N - None  
O - AsNaO2  
P - Na2O4S  
Q - Na2SO3  
R - Na2S2O3  
S - H2SO4  
T - TSP Decacetyl\*210  
U - Anisole  
V - MCAA  
W - ph 4-5  
Z - other (specify)

Special Instructions/Note:  
**400-124841 COC**

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, D=dust, A=air)	Preservation Code
GWA-1	7/21/16	1302	G	Water	W
GW C-35	7/21/16	1240	G	Water	W
GW C-5	7/21/16	1440	G	Water	W
GWA-29	7/21/16	1205	G	Water	W
FD-2 (LF)	7/21/16	—	G	Water	W
GW C-34	7/21/16	1040	G	Water	W
GW C-30	7/21/16	1025	G	Water	W
GW C-6	7/21/16	1410	G	Water	W
FD-3 (LF)	7/21/16	—	G	Water	W
FD-1 (LF)	7/21/16	—	G	Water	W
GWA-4	7/21/16	1030	G	Water	W

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Unknown  Radioactive  
Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: **[Signature]**  
Reinforced by: **[Signature]**  
Reinforced by: **[Signature]**  
Reinforced by: **[Signature]**

Date/Time: **7/21/16 1730**  
Date/Time: **7/22/2016 9:12**  
Company: **TA**  
Company: **TA**

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-124841-1

SDG Number: Landfill

**Login Number: 124841**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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,0.6°C,1.1°C,0.7°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 Wansley

TestAmerica Job ID: 400-124841-1  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

\* Certification renewal pending - 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: 400-124841-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/23/2016 5:02:17 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto: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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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

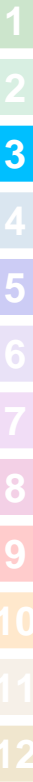
Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

**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



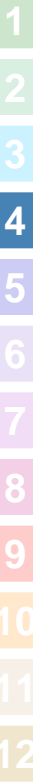


# Sample Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124841-1	GWA-1	Water	07/21/16 13:02	07/22/16 09:12
400-124841-2	GWC-35	Water	07/21/16 12:40	07/22/16 09:12
400-124841-3	GWC-5	Water	07/21/16 14:40	07/22/16 09:12
400-124841-4	GWA-29	Water	07/21/16 12:05	07/22/16 09:12
400-124841-5	FD-2 (LF)	Water	07/21/16 00:00	07/22/16 09:12
400-124841-6	GWC-34	Water	07/21/16 10:40	07/22/16 09:12
400-124841-7	GWC-30	Water	07/21/16 10:25	07/22/16 09:12
400-124841-8	GWC-6	Water	07/21/16 14:10	07/22/16 09:12
400-124841-9	FD-3 (LF)	Water	07/21/16 00:00	07/22/16 09:12
400-124841-10	FD-1 (LF)	Water	07/21/16 00:00	07/22/16 09:12
400-124841-11	GWA-4	Water	07/21/16 10:30	07/22/16 09:12



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 07/21/16 13:02**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.0648	0.0648	1.00	0.124	pCi/L	07/28/16 16:35	08/19/16 04:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/28/16 16:35	08/19/16 04:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.339	U	0.232	0.234	1.00	0.360	pCi/L	07/28/16 17:23	08/15/16 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/28/16 17:23	08/15/16 12:32	1
Y Carrier	87.9		40 - 110					07/28/16 17:23	08/15/16 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	0.339	U	0.241	0.243	5.00	0.360	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-124841-2**

**Date Collected: 07/21/16 12:40**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0123	U	0.0719	0.0719	1.00	0.133	pCi/L	07/28/16 16:35	08/19/16 04:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					07/28/16 16:35	08/19/16 04:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.136	U	0.196	0.196	1.00	0.329	pCi/L	07/28/16 17:23	08/15/16 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					07/28/16 17:23	08/15/16 12:32	1
Y Carrier	88.2		40 - 110					07/28/16 17:23	08/15/16 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	0.148	U	0.209	0.209	5.00	0.329	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 07/21/16 14:40**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0567	U	0.0699	0.0700	1.00	0.150	pCi/L	07/28/16 16:35	08/19/16 04:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					07/28/16 16:35	08/19/16 04:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0215	U	0.250	0.250	1.00	0.450	pCi/L	07/28/16 17:23	08/15/16 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					07/28/16 17:23	08/15/16 12:32	1
Y Carrier	86.0		40 - 110					07/28/16 17:23	08/15/16 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	-0.0782	U	0.259	0.259	5.00	0.450	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWA-29**

**Date Collected: 07/21/16 12:05**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-4**

**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	0.0680	U	0.0729	0.0732	1.00	0.118	pCi/L	07/28/16 16:35	08/19/16 04:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/28/16 16:35	08/19/16 04:44	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.321	U	0.224	0.226	1.00	0.348	pCi/L	07/28/16 17:23	08/15/16 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/28/16 17:23	08/15/16 12:32	1
Y Carrier	89.7		40 - 110					07/28/16 17:23	08/15/16 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	0.389		0.236	0.238	5.00	0.348	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: FD-2 (LF)**

**Lab Sample ID: 400-124841-5**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0651	U	0.0561	0.0564	1.00	0.0841	pCi/L	07/28/16 16:35	08/19/16 04:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					07/28/16 16:35	08/19/16 04:44	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00766	U	0.175	0.175	1.00	0.316	pCi/L	07/28/16 17:23	08/15/16 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					07/28/16 17:23	08/15/16 12:32	1
Y Carrier	88.2		40 - 110					07/28/16 17:23	08/15/16 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	0.0728	U	0.184	0.184	5.00	0.316	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWC-34**

**Date Collected: 07/21/16 10:40**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-6**

**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	0.0545	U	0.0652	0.0654	1.00	0.107	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					07/28/16 16:35	08/19/16 04:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.161	0.161	1.00	0.315	pCi/L	07/28/16 17:23	08/15/16 12:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					07/28/16 17:23	08/15/16 12:32	1
Y Carrier	87.9		40 - 110					07/28/16 17:23	08/15/16 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	-0.0583	U	0.174	0.174	5.00	0.315	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
 SDG: Landfill

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-124841-7**

**Date Collected: 07/21/16 10:25**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0405	U	0.0650	0.0651	1.00	0.112	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/28/16 16:35	08/19/16 04:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.200	0.201	1.00	0.337	pCi/L	07/28/16 17:23	08/15/16 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					07/28/16 17:23	08/15/16 12:33	1
Y Carrier	90.5		40 - 110					07/28/16 17:23	08/15/16 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	0.171	U	0.211	0.211	5.00	0.337	pCi/L		08/22/16 19:34	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 07/21/16 14:10**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-8**  
**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	0.00226	U	0.0606	0.0606	1.00	0.116	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/28/16 16:35	08/19/16 04:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331		0.208	0.210	1.00	0.315	pCi/L	07/28/16 17:23	08/15/16 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/28/16 17:23	08/15/16 12:33	1
Y Carrier	88.6		40 - 110					07/28/16 17:23	08/15/16 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	0.333		0.217	0.219	5.00	0.315	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: FD-3 (LF)**

**Date Collected: 07/21/16 00:00**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-9**

**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	0.0918	U	0.0696	0.0701	1.00	0.104	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					07/28/16 16:35	08/19/16 04:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.215	0.216	1.00	0.353	pCi/L	07/28/16 17:23	08/15/16 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					07/28/16 17:23	08/15/16 12:33	1
Y Carrier	87.5		40 - 110					07/28/16 17:23	08/15/16 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	0.283	U	0.226	0.227	5.00	0.353	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: FD-1 (LF)**

**Lab Sample ID: 400-124841-10**

Date Collected: 07/21/16 00:00

Matrix: Water

Date Received: 07/22/16 09:12

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.368		0.104	0.109	1.00	0.100	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					07/28/16 16:35	08/19/16 04:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.781		0.245	0.256	1.00	0.320	pCi/L	07/28/16 17:23	08/15/16 12:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					07/28/16 17:23	08/15/16 12:33	1
Y Carrier	92.3		40 - 110					07/28/16 17:23	08/15/16 12:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.267	0.278	5.00	0.320	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 07/21/16 10:30**  
**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-11**  
**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	0.252		0.0940	0.0967	1.00	0.110	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		40 - 110					07/28/16 16:35	08/19/16 04:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.779		0.239	0.249	1.00	0.305	pCi/L	07/28/16 17:23	08/15/16 12:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		40 - 110					07/28/16 17:23	08/15/16 12:29	1
Y Carrier	91.6		40 - 110					07/28/16 17:23	08/15/16 12:29	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	1.03		0.257	0.267	5.00	0.305	pCi/L		08/22/16 19:34	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

## 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 Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: GWA-1**

**Date Collected: 07/21/16 13:02**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265562	08/19/16 04:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:32	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-35**

**Date Collected: 07/21/16 12:40**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265562	08/19/16 04:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:32	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-5**

**Date Collected: 07/21/16 14:40**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265562	08/19/16 04:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:32	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWA-29**

**Date Collected: 07/21/16 12:05**

**Date Received: 07/22/16 09:12**

**Lab Sample ID: 400-124841-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265562	08/19/16 04:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:32	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

**Client Sample ID: FD-2 (LF)**

**Lab Sample ID: 400-124841-5**

**Date Collected: 07/21/16 00:00**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265562	08/19/16 04:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:32	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-124841-6**

**Date Collected: 07/21/16 10:40**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:32	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-124841-7**

**Date Collected: 07/21/16 10:25**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:33	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-124841-8**

**Date Collected: 07/21/16 14:10**

**Matrix: Water**

**Date Received: 07/22/16 09:12**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:33	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

## Client Sample ID: FD-3 (LF)

**Lab Sample ID: 400-124841-9**

Date Collected: 07/21/16 00:00

Matrix: Water

Date Received: 07/22/16 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:33	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

## Client Sample ID: FD-1 (LF)

**Lab Sample ID: 400-124841-10**

Date Collected: 07/21/16 00:00

Matrix: Water

Date Received: 07/22/16 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264773	08/15/16 12:33	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

## Client Sample ID: GWA-4

**Lab Sample ID: 400-124841-11**

Date Collected: 07/21/16 10:30

Matrix: Water

Date Received: 07/22/16 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:29	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	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 Wansley

TestAmerica Job ID: 400-124841-3  
 SDG: Landfill

## Rad

### Prep Batch: 262574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total/NA	Water	PrecSep-21	
400-124841-2	GWC-35	Total/NA	Water	PrecSep-21	
400-124841-3	GWC-5	Total/NA	Water	PrecSep-21	
400-124841-4	GWA-29	Total/NA	Water	PrecSep-21	
400-124841-5	FD-2 (LF)	Total/NA	Water	PrecSep-21	
400-124841-6	GWC-34	Total/NA	Water	PrecSep-21	
400-124841-7	GWC-30	Total/NA	Water	PrecSep-21	
400-124841-8	GWC-6	Total/NA	Water	PrecSep-21	
400-124841-9	FD-3 (LF)	Total/NA	Water	PrecSep-21	
400-124841-10	FD-1 (LF)	Total/NA	Water	PrecSep-21	
400-124841-11	GWA-4	Total/NA	Water	PrecSep-21	
MB 160-262574/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-262574/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-124841-1 DU	GWA-1	Total/NA	Water	PrecSep-21	

### Prep Batch: 262577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124841-1	GWA-1	Total/NA	Water	PrecSep_0	
400-124841-2	GWC-35	Total/NA	Water	PrecSep_0	
400-124841-3	GWC-5	Total/NA	Water	PrecSep_0	
400-124841-4	GWA-29	Total/NA	Water	PrecSep_0	
400-124841-5	FD-2 (LF)	Total/NA	Water	PrecSep_0	
400-124841-6	GWC-34	Total/NA	Water	PrecSep_0	
400-124841-7	GWC-30	Total/NA	Water	PrecSep_0	
400-124841-8	GWC-6	Total/NA	Water	PrecSep_0	
400-124841-9	FD-3 (LF)	Total/NA	Water	PrecSep_0	
400-124841-10	FD-1 (LF)	Total/NA	Water	PrecSep_0	
400-124841-11	GWA-4	Total/NA	Water	PrecSep_0	
MB 160-262577/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-262577/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-124841-1 DU	GWA-1	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

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

**Lab Sample ID: MB 160-262574/1-A**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.002403	U	0.0455	0.0455	1.00	0.0918	pCi/L	07/28/16 16:35	08/19/16 04:43	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					07/28/16 16:35	08/19/16 04:43	1

**Lab Sample ID: LCS 160-262574/2-A**  
**Matrix: Water**  
**Analysis Batch: 265565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	14.02		1.38	1.00	0.121	pCi/L	126	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	93.4		40 - 110						

**Lab Sample ID: 400-124841-1 DU**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.000	U	0.1030		0.0709	1.00	0.100	pCi/L	0.76	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	88.0		40 - 110							

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

**Lab Sample ID: MB 160-262577/1-A**  
**Matrix: Water**  
**Analysis Batch: 264773**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 262577**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2429	U	0.196	0.197	1.00	0.389	pCi/L	07/28/16 17:23	08/15/16 12:31	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					07/28/16 17:23	08/15/16 12:31	1
Y Carrier	90.8		40 - 110					07/28/16 17:23	08/15/16 12:31	1

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
 SDG: Landfill

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

**Lab Sample ID: LCS 160-262577/2-A**  
**Matrix: Water**  
**Analysis Batch: 264773**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262577**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	15.64		1.65	1.00	0.382	pCi/L	106	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.4		40 - 110
Y Carrier	89.0		40 - 110

**Lab Sample ID: 400-124841-1 DU**  
**Matrix: Water**  
**Analysis Batch: 264773**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**  
**Prep Batch: 262577**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.339	U	0.1128	U	0.196	1.00	0.333	pCi/L	0.53	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	88.0		40 - 110
Y Carrier	87.9		40 - 110

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**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: **labraham@southernco.com**  
Project Name: **CCR Plant Wansley**  
Site: **Landfill**

Sampler: **Colder**  
Lab P/N: **Whitmore, Cheyenne R**  
E-Mail: **cheyenne.whitmore@testamericainc.com**

Analysis Requested: **APP III + IV**  
Preservation Codes: **M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Decacetyl, U - Arsenic, V - MOCAA, W - ph 4-6, X - EDTA, L - EDA, Other:**

Job #: **10f1 497/2/16**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, G=Grab)	Preservation Code	Special Instructions/Note
GWA-1	7/21/16	1302	G	Water	W	
GW C-35	7/21/16	1240	G	Water	W	
GW C-5	7/21/16	1440	G	Water	W	
GWA-29	7/21/16	1205	G	Water	W	
FD-2 (LF)	7/21/16	—	G	Water	W	
GW C-34	7/21/16	1040	G	Water	W	
GW C-30	7/21/16	1025	G	Water	W	
GW C-6	7/21/16	1410	G	Water	W	
FD-3 (LF)	7/21/16	—	G	Water	W	
FD-1 (LF)	7/21/16	—	G	Water	W	
GWA-4	7/21/16	1030	G	Water	W	

Barcode: **9315 Ra226, 9320 Ra228**  
 Barcode: **6020, 7470A**  
 Barcode: **400-124841 COC**  
 QR Code:

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Unknown  Radioactive  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** *[Signature]* Date: **7/21/16 1730**  
 Relinquished by: *[Signature]* Date: **7/21/16 1730**  
 Relinquished by: *[Signature]* Date: **7/21/16 1730**

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For: **1 month**

**Method of Shipment:** **7/21/2016 9:12**  
 Company: **JA**  
 Date/Time: **7/21/2016 9:12**  
 Date/Time: **7/21/2016 9:12**  
 Date/Time: **7/21/2016 9:12**

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-124841-3

SDG Number: Landfill

**Login Number: 124841**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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,0.6°C,1.1°C,0.7°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 Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

## 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	07-31-16 *
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.

TestAmerica Pensacola

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124841-3  
SDG: Landfill

## 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	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

\* Certification renewal pending - 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: 400-124898-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/11/2016 3:48:44 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

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**Job ID: 400-124898-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative**  
**400-124898-1**

**HPLC/IC**

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-7 (400-124898-4). Elevated reporting limits (RLs) are provided.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Client Sample ID: GWC-32

## Lab Sample ID: 400-124898-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0014	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0012	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	7.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00058	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.010		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	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33

## Lab Sample ID: 400-124898-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0011	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	9.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.010		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00074	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00022	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-12

## Lab Sample ID: 400-124898-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.22		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	20		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00047	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	32		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-7

## Lab Sample ID: 400-124898-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.23		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	86		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 Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Client Sample ID: GWC-7 (Continued)

## Lab Sample ID: 400-124898-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00049	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.089		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	56		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0042		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0079		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: EB-2 (LF)

## Lab Sample ID: 400-124898-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00083	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable

## Client Sample ID: EB-1 (LF)

## Lab Sample ID: 400-124898-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00066	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Mercury	0.000082	J	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: FB-1 (LF)

## Lab Sample ID: 400-124898-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00064	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable

## Client Sample ID: FB-2 (LF)

## Lab Sample ID: 400-124898-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00064	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124898-1	GWC-32	Water	07/22/16 09:25	07/23/16 09:15
400-124898-2	GWC-33	Water	07/22/16 10:10	07/23/16 09:15
400-124898-3	GWC-12	Water	07/22/16 09:55	07/23/16 09:15
400-124898-4	GWC-7	Water	07/22/16 10:45	07/23/16 09:15
400-124898-5	EB-2 (LF)	Water	07/22/16 10:00	07/23/16 09:15
400-124898-6	EB-1 (LF)	Water	07/22/16 09:45	07/23/16 09:15
400-124898-7	FB-1 (LF)	Water	07/22/16 09:10	07/23/16 09:15
400-124898-8	FB-2 (LF)	Water	07/22/16 09:30	07/23/16 09:15

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: GWC-32**  
**Date Collected: 07/22/16 09:25**  
**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			07/26/16 03:56	1
Fluoride	3.5		0.20	0.082	mg/L			07/26/16 03:56	1
Sulfate	12		1.0	0.70	mg/L			07/26/16 03:56	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		07/26/16 10:52	07/26/16 19:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 19:58	5
Barium	0.0014	J	0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 19:58	5
Beryllium	0.0012	J	0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 19:58	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 19:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 19:58	5
Calcium	7.1		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 19:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 19:58	5
Cobalt	0.00058	J	0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 19:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 19:58	5
Lithium	0.010		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 19:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 19:58	5
Selenium	0.00025	J	0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 19:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 19:58	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		07/25/16 09:00	07/26/16 12:51	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			07/26/16 13:58	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
 SDG: Landfill

**Client Sample ID: GWC-33**

**Date Collected: 07/22/16 10:10**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-2**

**Matrix: Water**

**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		07/26/16 10:52	07/26/16 20:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:02	5
<b>Barium</b>	<b>0.010</b>		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:02	5
<b>Beryllium</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:02	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:02	5
<b>Calcium</b>	<b>9.0</b>		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:02	5
<b>Cobalt</b>	<b>0.010</b>		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:02	5
<b>Selenium</b>	<b>0.00074</b>	<b>J</b>	0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:02	5
<b>Thallium</b>	<b>0.00022</b>	<b>J</b>	0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:02	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		07/25/16 09:00	07/26/16 12:53	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: GWC-12**

**Date Collected: 07/22/16 09:55**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-3**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.89	mg/L			07/26/16 04:18	1
Fluoride	0.22		0.20	0.082	mg/L			07/26/16 04:18	1
Sulfate	20		1.0	0.70	mg/L			07/26/16 04:18	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		07/26/16 10:52	07/26/16 20:07	5
Arsenic	0.00047	J	0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:07	5
Barium	0.017		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:07	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:07	5
Calcium	32		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:07	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		07/25/16 09:00	07/26/16 12:54	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			07/26/16 13:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: GWC-7**  
**Date Collected: 07/22/16 10:45**  
**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		1.0	0.89	mg/L			07/26/16 04:41	1
Fluoride	0.23		0.20	0.082	mg/L			07/26/16 04:41	1
Sulfate	86		5.0	3.5	mg/L			07/27/16 03:05	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		07/26/16 10:52	07/26/16 20:11	5
Arsenic	0.00049	J	0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:11	5
Barium	0.089		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:11	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:11	5
Calcium	56		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:11	5
Cobalt	0.0042		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:11	5
Lithium	0.0079		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:11	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		07/25/16 09:00	07/26/16 12:55	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		5.0	3.4	mg/L			07/26/16 13:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: EB-2 (LF)**

**Date Collected: 07/22/16 10:00**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-5**

**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			07/26/16 05:04	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/16 05:04	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/16 05:04	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		07/26/16 10:52	07/26/16 20:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:16	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:16	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:16	5
<b>Lead</b>	<b>0.00083</b>	<b>J</b>	0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:16	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		07/25/16 09:00	07/26/16 12:56	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			07/26/16 13:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: EB-1 (LF)**

**Lab Sample ID: 400-124898-6**

**Date Collected: 07/22/16 09:45**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

### 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			07/26/16 05:27	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/16 05:27	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/16 05:27	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		07/26/16 10:52	07/26/16 20:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:20	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:20	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:20	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:20	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:20	5
<b>Lead</b>	<b>0.00066</b>	<b>J</b>	0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:20	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:20	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000082</b>	<b>J</b>	0.00020	0.000070	mg/L		07/25/16 09:00	07/26/16 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			07/26/16 13:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: FB-1 (LF)**

**Date Collected: 07/22/16 09:10**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-7**

**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			07/26/16 17:25	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/16 17:25	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/16 17:25	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		07/26/16 10:52	07/26/16 20:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:25	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:25	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:25	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:25	5
<b>Lead</b>	<b>0.00064</b>	<b>J</b>	0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:25	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		07/25/16 09:00	07/26/16 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			07/26/16 13:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: FB-2 (LF)**

**Lab Sample ID: 400-124898-8**

**Date Collected: 07/22/16 09:30**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

### 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			07/26/16 19:46	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/16 19:46	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/16 19:46	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		07/26/16 10:52	07/26/16 20:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 20:29	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 20:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:29	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/26/16 20:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 20:29	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 20:29	5
<b>Chromium</b>	<b>0.0014</b>	<b>J</b>	0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 20:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 20:29	5
<b>Lead</b>	<b>0.00064</b>	<b>J</b>	0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 20:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/26/16 20:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 20:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 20:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 20:29	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		07/25/16 09:00	07/26/16 13:12	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			07/26/16 13:58	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Qualifiers

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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 Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Client Sample ID: GWC-32**

**Date Collected: 07/22/16 09:25**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/26/16 03:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 19:58	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 12:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN

**Client Sample ID: GWC-33**

**Date Collected: 07/22/16 10:10**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:02	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 12:53	JAP	TAL PEN

**Client Sample ID: GWC-12**

**Date Collected: 07/22/16 09:55**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/26/16 04:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:07	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 12:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN

**Client Sample ID: GWC-7**

**Date Collected: 07/22/16 10:45**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/26/16 04:41	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	315982	07/27/16 03:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:11	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 12:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Client Sample ID: EB-2 (LF)

**Lab Sample ID: 400-124898-5**

Date Collected: 07/22/16 10:00

Matrix: Water

Date Received: 07/23/16 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/26/16 05:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:16	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN

## Client Sample ID: EB-1 (LF)

**Lab Sample ID: 400-124898-6**

Date Collected: 07/22/16 09:45

Matrix: Water

Date Received: 07/23/16 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315700	07/26/16 05:27	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:20	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN

## Client Sample ID: FB-1 (LF)

**Lab Sample ID: 400-124898-7**

Date Collected: 07/22/16 09:10

Matrix: Water

Date Received: 07/23/16 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315982	07/26/16 17:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:25	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 13:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN

## Client Sample ID: FB-2 (LF)

**Lab Sample ID: 400-124898-8**

Date Collected: 07/22/16 09:30

Matrix: Water

Date Received: 07/23/16 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	315982	07/26/16 19:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315750	07/26/16 10:52	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	315911	07/26/16 20:29	GKP	TAL PEN
Total/NA	Prep	7470A			315547	07/25/16 09:00	JAP	TAL PEN
Total/NA	Analysis	7470A		1	315804	07/26/16 13:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	315780	07/26/16 13:58	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Laboratory References:**

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

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 315700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total/NA	Water	300.0	
400-124898-3	GWC-12	Total/NA	Water	300.0	
400-124898-4	GWC-7	Total/NA	Water	300.0	
400-124898-5	EB-2 (LF)	Total/NA	Water	300.0	
400-124898-6	EB-1 (LF)	Total/NA	Water	300.0	
MB 400-315700/3	Method Blank	Total/NA	Water	300.0	
LCS 400-315700/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-315700/5	Lab Control Sample Dup	Total/NA	Water	300.0	
400-124841-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-124920-E-2 MS	Matrix Spike	Total/NA	Water	300.0	

### Analysis Batch: 315982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-4	GWC-7	Total/NA	Water	300.0	
400-124898-7	FB-1 (LF)	Total/NA	Water	300.0	
400-124898-8	FB-2 (LF)	Total/NA	Water	300.0	
MB 400-315982/4	Method Blank	Total/NA	Water	300.0	
LCS 400-315982/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-315982/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-124898-7 MS	FB-1 (LF)	Total/NA	Water	300.0	
400-124898-7 MSD	FB-1 (LF)	Total/NA	Water	300.0	

## Metals

### Prep Batch: 315547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total/NA	Water	7470A	
400-124898-2	GWC-33	Total/NA	Water	7470A	
400-124898-3	GWC-12	Total/NA	Water	7470A	
400-124898-4	GWC-7	Total/NA	Water	7470A	
400-124898-5	EB-2 (LF)	Total/NA	Water	7470A	
400-124898-6	EB-1 (LF)	Total/NA	Water	7470A	
400-124898-7	FB-1 (LF)	Total/NA	Water	7470A	
400-124898-8	FB-2 (LF)	Total/NA	Water	7470A	
MB 400-315547/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-315547/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-124852-D-5-B MS	Matrix Spike	Total/NA	Water	7470A	
400-124852-D-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 315750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total Recoverable	Water	3005A	
400-124898-2	GWC-33	Total Recoverable	Water	3005A	
400-124898-3	GWC-12	Total Recoverable	Water	3005A	
400-124898-4	GWC-7	Total Recoverable	Water	3005A	
400-124898-5	EB-2 (LF)	Total Recoverable	Water	3005A	
400-124898-6	EB-1 (LF)	Total Recoverable	Water	3005A	
400-124898-7	FB-1 (LF)	Total Recoverable	Water	3005A	
400-124898-8	FB-2 (LF)	Total Recoverable	Water	3005A	
MB 400-315750/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Metals (Continued)

### Prep Batch: 315750 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-315750/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124852-D-5-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124852-D-5-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 315804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total/NA	Water	7470A	315547
400-124898-2	GWC-33	Total/NA	Water	7470A	315547
400-124898-3	GWC-12	Total/NA	Water	7470A	315547
400-124898-4	GWC-7	Total/NA	Water	7470A	315547
400-124898-5	EB-2 (LF)	Total/NA	Water	7470A	315547
400-124898-6	EB-1 (LF)	Total/NA	Water	7470A	315547
400-124898-7	FB-1 (LF)	Total/NA	Water	7470A	315547
400-124898-8	FB-2 (LF)	Total/NA	Water	7470A	315547
MB 400-315547/14-A	Method Blank	Total/NA	Water	7470A	315547
LCS 400-315547/15-A	Lab Control Sample	Total/NA	Water	7470A	315547
400-124852-D-5-B MS	Matrix Spike	Total/NA	Water	7470A	315547
400-124852-D-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	315547

### Analysis Batch: 315911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total Recoverable	Water	6020	315750
400-124898-2	GWC-33	Total Recoverable	Water	6020	315750
400-124898-3	GWC-12	Total Recoverable	Water	6020	315750
400-124898-4	GWC-7	Total Recoverable	Water	6020	315750
400-124898-5	EB-2 (LF)	Total Recoverable	Water	6020	315750
400-124898-6	EB-1 (LF)	Total Recoverable	Water	6020	315750
400-124898-7	FB-1 (LF)	Total Recoverable	Water	6020	315750
400-124898-8	FB-2 (LF)	Total Recoverable	Water	6020	315750
MB 400-315750/1-A ^5	Method Blank	Total Recoverable	Water	6020	315750
LCS 400-315750/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315750
400-124852-D-5-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	315750
400-124852-D-5-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	315750

### Analysis Batch: 316086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-315750/1-A ^5	Method Blank	Total Recoverable	Water	6020	315750
LCS 400-315750/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315750

## General Chemistry

### Analysis Batch: 315780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total/NA	Water	SM 2540C	
400-124898-3	GWC-12	Total/NA	Water	SM 2540C	
400-124898-4	GWC-7	Total/NA	Water	SM 2540C	
400-124898-5	EB-2 (LF)	Total/NA	Water	SM 2540C	
400-124898-6	EB-1 (LF)	Total/NA	Water	SM 2540C	
400-124898-7	FB-1 (LF)	Total/NA	Water	SM 2540C	
400-124898-8	FB-2 (LF)	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## General Chemistry (Continued)

### Analysis Batch: 315780 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-315780/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-315780/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124819-L-2 DU	Duplicate	Total/NA	Water	SM 2540C	
400-124901-H-1 DU	Duplicate	Total/NA	Water	SM 2540C	

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-315700/3**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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			07/25/16 18:25	1
Fluoride	<0.082		0.20	0.082	mg/L			07/25/16 18:25	1
Sulfate	<0.70		1.0	0.70	mg/L			07/25/16 18:25	1

**Lab Sample ID: LCS 400-315700/4**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	9.98		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-315700/5**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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	9.65		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	9.86		mg/L		99	90 - 110	1	15

**Lab Sample ID: 400-124841-A-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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	14.8		mg/L		104	80 - 120	0	20
Fluoride	<0.082		10.0	11.5		mg/L		115	80 - 120	0	20
Sulfate	2.8		10.0	13.8		mg/L		110	80 - 120	1	20

**Lab Sample ID: 400-124920-E-2 MS**  
**Matrix: Water**  
**Analysis Batch: 315700**

**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	1.0		10.0	11.9		mg/L		109	80 - 120
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120
Sulfate	7.1		10.0	18.5		mg/L		114	80 - 120

**Lab Sample ID: MB 400-315982/4**  
**Matrix: Water**  
**Analysis Batch: 315982**

**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			07/26/16 15:33	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/16 15:33	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/16 15:33	1

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-315982/5**  
**Matrix: Water**  
**Analysis Batch: 315982**

**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	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-315982/6**  
**Matrix: Water**  
**Analysis Batch: 315982**

**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	9.73		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	9.96		mg/L		100	90 - 110	2	15

**Lab Sample ID: 400-124898-7 MS**  
**Matrix: Water**  
**Analysis Batch: 315982**

**Client Sample ID: FB-1 (LF)**  
**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	10.3		mg/L		103	80 - 120
Fluoride	<0.082		10.0	11.2		mg/L		112	80 - 120
Sulfate	<0.70		10.0	10.7		mg/L		107	80 - 120

**Lab Sample ID: 400-124898-7 MSD**  
**Matrix: Water**  
**Analysis Batch: 315982**

**Client Sample ID: FB-1 (LF)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.89		10.0	10.3		mg/L		103	80 - 120	0	20
Fluoride	<0.082		10.0	11.3		mg/L		113	80 - 120	1	20
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120	2	20

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

**Lab Sample ID: MB 400-315750/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/26/16 10:52	07/26/16 17:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/26/16 10:52	07/26/16 17:02	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/26/16 10:52	07/26/16 17:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/26/16 17:02	5
Calcium	<0.13		0.25	0.13	mg/L		07/26/16 10:52	07/26/16 17:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/26/16 10:52	07/26/16 17:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/26/16 10:52	07/26/16 17:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/26/16 10:52	07/26/16 17:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/26/16 10:52	07/26/16 17:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/26/16 10:52	07/26/16 17:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/26/16 10:52	07/26/16 17:02	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

**Lab Sample ID: MB 400-315750/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/26/16 10:52	07/27/16 14:07	5
Boron	<0.021		0.050	0.021	mg/L		07/26/16 10:52	07/27/16 14:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/26/16 10:52	07/27/16 14:07	5

**Lab Sample ID: LCS 400-315750/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0522		mg/L		104	80 - 120
Arsenic	0.0500	0.0558		mg/L		112	80 - 120
Barium	0.0500	0.0466		mg/L		93	80 - 120
Cadmium	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	4.70		mg/L		94	80 - 120
Chromium	0.0500	0.0500		mg/L		100	80 - 120
Cobalt	0.0500	0.0494		mg/L		99	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Molybdenum	0.0500	0.0516		mg/L		103	80 - 120
Selenium	0.0500	0.0510		mg/L		102	80 - 120
Thallium	0.0100	0.0100		mg/L		100	80 - 120

**Lab Sample ID: LCS 400-315750/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316086**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Lithium	0.0500	0.0471		mg/L		94	80 - 120

**Lab Sample ID: 400-124852-D-5-E MS ^5**  
**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0527		mg/L		105	75 - 125
Arsenic	0.044		0.0500	0.101		mg/L		114	75 - 125
Barium	0.037		0.0500	0.0818		mg/L		90	75 - 125
Beryllium	<0.00034		0.0500	0.0436		mg/L		87	75 - 125
Boron	<0.021	F1 F2	0.100	0.0834		mg/L		83	75 - 125
Cadmium	<0.00034		0.0500	0.0473		mg/L		95	75 - 125
Calcium	2.1		5.00	6.99		mg/L		97	75 - 125
Chromium	<0.0011		0.0500	0.0502		mg/L		100	75 - 125
Cobalt	0.019		0.0500	0.0679		mg/L		98	75 - 125
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125
Lithium	<0.0032		0.0500	0.0449		mg/L		90	75 - 125
Molybdenum	<0.00085		0.0500	0.0524		mg/L		105	75 - 125
Selenium	<0.00024		0.0500	0.0530		mg/L		106	75 - 125
Thallium	<0.00085		0.0100	0.00987		mg/L		99	75 - 125



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
SDG: Landfill

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

**Lab Sample ID: 400-124852-D-5-F MSD ^5**

**Matrix: Water**  
**Analysis Batch: 315911**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**  
**Prep Batch: 315750**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0510		mg/L		102	75 - 125	3	20
Arsenic	0.044		0.0500	0.101		mg/L		115	75 - 125	0	20
Barium	0.037		0.0500	0.0821		mg/L		91	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0416		mg/L		83	75 - 125	5	20
Boron	<0.021	F1 F2	0.100	0.0674	F1 F2	mg/L		67	75 - 125	21	20
Cadmium	<0.00034		0.0500	0.0464		mg/L		93	75 - 125	2	20
Calcium	2.1		5.00	6.84		mg/L		94	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0510		mg/L		102	75 - 125	2	20
Cobalt	0.019		0.0500	0.0680		mg/L		98	75 - 125	0	20
Lead	<0.00035		0.0500	0.0488		mg/L		98	75 - 125	2	20
Lithium	<0.0032		0.0500	0.0410		mg/L		82	75 - 125	9	20
Molybdenum	<0.00085		0.0500	0.0520		mg/L		104	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0520		mg/L		104	75 - 125	2	20
Thallium	<0.000085		0.0100	0.00979		mg/L		98	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-315547/14-A**

**Matrix: Water**  
**Analysis Batch: 315804**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 315547**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/25/16 08:56	07/26/16 12:17	1

**Lab Sample ID: LCS 400-315547/15-A**

**Matrix: Water**  
**Analysis Batch: 315804**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**  
**Prep Batch: 315547**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000938		mg/L		93	80 - 120

**Lab Sample ID: 400-124852-D-5-B MS**

**Matrix: Water**  
**Analysis Batch: 315804**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**  
**Prep Batch: 315547**

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: 400-124852-D-5-C MSD**

**Matrix: Water**  
**Analysis Batch: 315804**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**  
**Prep Batch: 315547**

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

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
 SDG: Landfill

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

**Lab Sample ID: MB 400-315780/1**  
**Matrix: Water**  
**Analysis Batch: 315780**

**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			07/26/16 13:58	1

**Lab Sample ID: LCS 400-315780/2**  
**Matrix: Water**  
**Analysis Batch: 315780**

**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: 400-124819-L-2 DU**  
**Matrix: Water**  
**Analysis Batch: 315780**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		240		mg/L		0	5

**Lab Sample ID: 400-124901-H-1 DU**  
**Matrix: Water**  
**Analysis Batch: 315780**

**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	2500		2470		mg/L		0.08	5

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND  
 CHAIN OF CUSTODY RECORD**

LAB USE ONLY

Work Order No.  
 Reviewed By:  
 Page 1 of 1

LabPac Cheyenne Whitmine

Sample Shipment Date: 8/22/16

Sample Received Date: 9/5/16

Standard Turnaround Time

Company: Southern Company Services  
 Report To: Jojo Abraham  
 Address: 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax: 404-506-7239  
 Contact: Jojo Abraham  
 Project Location: Plant Wansley  
 Account Number:

Sampled By: Carlier - Kristen Jurinko  
 Ben Hodges, Chris Gargan, Travis Martine

# of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Sample Type Key: 22	G-Grab	O-Other	C-Composite
Matrix Key: 23	S-Solid	SL-Sludge	W-Wipe
	SW-Surface Water	GW-Ground Water	WW-Wastewater
	WV-Drinking Water	DW-Domestic Water	W-Drinking Water
Preservative Key: 24	H-Hydrochloric Acid N-Nitric Acid		
	S-Sulfuric Acid	SH-Sodium Hydroxide	
	SS-Sodium Bisulfate	P-Phosphoric Acid	
	ST-Sodium Thiosulfate	U-Unpreserved	

Special Instructions: CCR + Wansley LF State GW  
 PO# GR10624814 / Project # 40007041

LAB USE ONLY - LAB ID	Sample Number	Collection		Sample Description	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED				PRESERVATIVE	Comments	
		Date	Time					HNO3	Ice	HNO3	Ice			HNO3
	GW-C-32	7/22/16	0925	Montezuma well - landfill	G	GW	3	1	1	1	1			
	GW-C-33	7/22/16	1010	↓	↓	↓	3	1	1	1	1			
	GW-C-12	7/22/16	0955	↓	↓	↓	3	1	1	1	1			
	GW-C-7	7/22/16	1045	↓	↓	↓	3	1	1	1	1			
	EB-2(LF)	7/22/16	1000	Equipment Blank-landfill	W	W	3	1	1	1	1			
	EB-1(LF)	7/22/16	0945	↓	↓	↓	3	1	1	1	1			
	FB-1(LF)	7/22/16	0910	Field Blank-landfill	↓	↓	3	1	1	1	1			
	FB-2(LF)	7/22/16	0930	↓	↓	↓	3	1	1	1	1			

LAB USE ONLY - Sample Receipt Information		Date/Time	7/22/16 1300
Relinquished by:	<i>[Signature]</i>	Date/Time	7/22/16 1300
Received by:	<i>[Signature]</i>	Date/Time	9/5/16 1430
Relinquished by:		Date/Time	
Received by:		Date/Time	

0.96 / 0.46, 1.42 g/L



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-124898-1

SDG Number: Landfill

**Login Number: 124898**

**List Number: 1**

**Creator: Janish, Carl M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C, 0.4°C, 1.4°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.	N/A	
Residual Chlorine Checked.	N/A	

# Certification Summary

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-1  
 SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

\* Certification renewal pending - 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: 400-124898-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

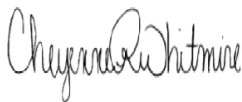
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/23/2016 5:09:09 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

**Job ID: 400-124898-3**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-124898-3

#### **RAD**

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-262400: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-12 (400-124898-3), GWC-7 (400-124898-4), EB-2 (LF) (400-124898-5), EB-1 (LF) (400-124898-6), FB-1 (LF) (400-124898-7) and FB-2 (LF) (400-124898-8). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Lot 400-124796 was prepared at a reduced aliquot due to limited sample available.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-262399: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-12 (400-124898-3), GWC-7 (400-124898-4), EB-2 (LF) (400-124898-5), EB-1 (LF) (400-124898-6), FB-1 (LF) (400-124898-7) and FB-2 (LF) (400-124898-8). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Lot 400-124796 was prepared at a reduced aliquot due to limited sample available.





# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124898-1	GWC-32	Water	07/22/16 09:25	07/23/16 09:15
400-124898-3	GWC-12	Water	07/22/16 09:55	07/23/16 09:15
400-124898-4	GWC-7	Water	07/22/16 10:45	07/23/16 09:15
400-124898-5	EB-2 (LF)	Water	07/22/16 10:00	07/23/16 09:15
400-124898-6	EB-1 (LF)	Water	07/22/16 09:45	07/23/16 09:15
400-124898-7	FB-1 (LF)	Water	07/22/16 09:10	07/23/16 09:15
400-124898-8	FB-2 (LF)	Water	07/22/16 09:30	07/23/16 09:15

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
 SDG: Landfill

**Client Sample ID: GWC-32**  
**Date Collected: 07/22/16 09:25**  
**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.122		0.0771	0.0779	1.00	0.109	pCi/L	07/28/16 16:35	08/19/16 04:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/28/16 16:35	08/19/16 04:45	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	0.202	0.203	1.00	0.330	pCi/L	07/28/16 17:23	08/15/16 12:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/28/16 17:23	08/15/16 12:29	1
Y Carrier	87.1		40 - 110					07/28/16 17:23	08/15/16 12:29	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	0.311	U	0.216	0.217	5.00	0.330	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-124898-3**

**Date Collected: 07/22/16 09:55**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.21		0.193	0.222	1.00	0.144	pCi/L	07/27/16 18:19	08/18/16 06:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/27/16 18:19	08/18/16 06:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.71		0.412	0.482	1.00	0.422	pCi/L	07/27/16 18:45	08/15/16 12:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/27/16 18:45	08/15/16 12:27	1
Y Carrier	83.7		40 - 110					07/27/16 18:45	08/15/16 12:27	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	3.92		0.455	0.530	5.00	0.422	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

**Client Sample ID: GWC-7**

**Date Collected: 07/22/16 10:45**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-4**

**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	0.118	U	0.0902	0.0908	1.00	0.136	pCi/L	07/27/16 18:19	08/18/16 08:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					07/27/16 18:19	08/18/16 08:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.216	0.217	1.00	0.351	pCi/L	07/27/16 18:45	08/15/16 12:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					07/27/16 18:45	08/15/16 12:27	1
Y Carrier	84.5		40 - 110					07/27/16 18:45	08/15/16 12:27	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	0.335	U	0.234	0.236	5.00	0.351	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
 SDG: Landfill

**Client Sample ID: EB-2 (LF)**

**Lab Sample ID: 400-124898-5**

**Date Collected: 07/22/16 10:00**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0147	U	0.0449	0.0449	1.00	0.101	pCi/L	07/27/16 18:19	08/18/16 08:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					07/27/16 18:19	08/18/16 08:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.106	U	0.213	0.213	1.00	0.401	pCi/L	07/27/16 18:45	08/15/16 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					07/27/16 18:45	08/15/16 12:28	1
Y Carrier	83.4		40 - 110					07/27/16 18:45	08/15/16 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	-0.120	U	0.217	0.217	5.00	0.401	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

**Client Sample ID: EB-1 (LF)**

**Lab Sample ID: 400-124898-6**

**Date Collected: 07/22/16 09:45**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0508	U	0.0593	0.0595	1.00	0.134	pCi/L	07/27/16 18:19	08/18/16 08:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					07/27/16 18:19	08/18/16 08:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0316	U	0.217	0.217	1.00	0.384	pCi/L	07/27/16 18:45	08/15/16 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					07/27/16 18:45	08/15/16 12:28	1
Y Carrier	85.6		40 - 110					07/27/16 18:45	08/15/16 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	-0.0192	U	0.225	0.225	5.00	0.384	pCi/L		08/22/16 19:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
 SDG: Landfill

**Client Sample ID: FB-1 (LF)**

**Lab Sample ID: 400-124898-7**

**Date Collected: 07/22/16 09:10**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0112	U	0.0493	0.0493	1.00	0.107	pCi/L	07/27/16 18:19	08/18/16 08:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					07/27/16 18:19	08/18/16 08:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.270	U	0.281	0.282	1.00	0.459	pCi/L	07/27/16 18:45	08/15/16 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					07/27/16 18:45	08/15/16 12:28	1
Y Carrier	84.1		40 - 110					07/27/16 18:45	08/15/16 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	0.258	U	0.285	0.286	5.00	0.459	pCi/L		08/22/16 19:34	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

**Client Sample ID: FB-2 (LF)**

**Lab Sample ID: 400-124898-8**

**Date Collected: 07/22/16 09:30**

**Matrix: Water**

**Date Received: 07/23/16 09:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0680	U	0.0720	0.0722	1.00	0.115	pCi/L	07/27/16 18:19	08/18/16 08:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					07/27/16 18:19	08/18/16 08:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0580	U	0.187	0.187	1.00	0.350	pCi/L	07/27/16 18:45	08/15/16 12:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					07/27/16 18:45	08/15/16 12:28	1
Y Carrier	84.1		40 - 110					07/27/16 18:45	08/15/16 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	0.00993	U	0.200	0.200	5.00	0.350	pCi/L		08/22/16 19:34	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

## 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 Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

**Client Sample ID: GWC-32**

**Date Collected: 07/22/16 09:25**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262574	07/28/16 16:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	265563	08/19/16 04:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262577	07/28/16 17:23	MCJ	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:29	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-12**

**Date Collected: 07/22/16 09:55**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262399	07/27/16 18:19	CMC	TAL SL
Total/NA	Analysis	9315		1	265416	08/18/16 06:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262400	07/27/16 18:45	CMC	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:27	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: GWC-7**

**Date Collected: 07/22/16 10:45**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262399	07/27/16 18:19	CMC	TAL SL
Total/NA	Analysis	9315		1	265416	08/18/16 08:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262400	07/27/16 18:45	CMC	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:27	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

**Client Sample ID: EB-2 (LF)**

**Date Collected: 07/22/16 10:00**

**Date Received: 07/23/16 09:15**

**Lab Sample ID: 400-124898-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262399	07/27/16 18:19	CMC	TAL SL
Total/NA	Analysis	9315		1	265416	08/18/16 08:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262400	07/27/16 18:45	CMC	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:28	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

## Client Sample ID: EB-1 (LF)

Date Collected: 07/22/16 09:45

Date Received: 07/23/16 09:15

## Lab Sample ID: 400-124898-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262399	07/27/16 18:19	CMC	TAL SL
Total/NA	Analysis	9315		1	265416	08/18/16 08:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262400	07/27/16 18:45	CMC	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:28	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

## Client Sample ID: FB-1 (LF)

Date Collected: 07/22/16 09:10

Date Received: 07/23/16 09:15

## Lab Sample ID: 400-124898-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262399	07/27/16 18:19	CMC	TAL SL
Total/NA	Analysis	9315		1	265416	08/18/16 08:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262400	07/27/16 18:45	CMC	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:28	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	RTM	TAL SL

## Client Sample ID: FB-2 (LF)

Date Collected: 07/22/16 09:30

Date Received: 07/23/16 09:15

## Lab Sample ID: 400-124898-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			262399	07/27/16 18:19	CMC	TAL SL
Total/NA	Analysis	9315		1	265416	08/18/16 08:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			262400	07/27/16 18:45	CMC	TAL SL
Total/NA	Analysis	9320		1	264774	08/15/16 12:28	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266023	08/22/16 19:34	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 Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

## Rad

### Prep Batch: 262399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-3	GWC-12	Total/NA	Water	PrecSep-21	
400-124898-4	GWC-7	Total/NA	Water	PrecSep-21	
400-124898-5	EB-2 (LF)	Total/NA	Water	PrecSep-21	
400-124898-6	EB-1 (LF)	Total/NA	Water	PrecSep-21	
400-124898-7	FB-1 (LF)	Total/NA	Water	PrecSep-21	
400-124898-8	FB-2 (LF)	Total/NA	Water	PrecSep-21	
MB 160-262399/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-262399/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-262399/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 262400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-3	GWC-12	Total/NA	Water	PrecSep_0	
400-124898-4	GWC-7	Total/NA	Water	PrecSep_0	
400-124898-5	EB-2 (LF)	Total/NA	Water	PrecSep_0	
400-124898-6	EB-1 (LF)	Total/NA	Water	PrecSep_0	
400-124898-7	FB-1 (LF)	Total/NA	Water	PrecSep_0	
400-124898-8	FB-2 (LF)	Total/NA	Water	PrecSep_0	
MB 160-262400/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-262400/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-262400/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Prep Batch: 262574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total/NA	Water	PrecSep-21	
MB 160-262574/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-262574/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-124841-C-1-B DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 262577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124898-1	GWC-32	Total/NA	Water	PrecSep_0	
MB 160-262577/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-262577/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-124841-C-1-D DU	Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

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

**Lab Sample ID: MB 160-262399/1-A**  
**Matrix: Water**  
**Analysis Batch: 265409**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 262399**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01193	U	0.0443	0.0443	1.00	0.0984	pCi/L	07/27/16 18:19	08/18/16 06:50	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	87.2					07/27/16 18:19	08/18/16 06:50	1		

**Lab Sample ID: LCS 160-262399/2-A**  
**Matrix: Water**  
**Analysis Batch: 265409**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262399**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	14.32		1.43	1.00	0.149	pCi/L	128	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	91.7								

**Lab Sample ID: LCSD 160-262399/3-A**  
**Matrix: Water**  
**Analysis Batch: 265409**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 262399**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.2	14.58		1.45	1.00	0.116	pCi/L	131	68 - 137	0.09	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier		40 - 110							
	92.9										

**Lab Sample ID: MB 160-262574/1-A**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.002403	U	0.0455	0.0455	1.00	0.0918	pCi/L	07/28/16 16:35	08/19/16 04:43	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	90.0					07/28/16 16:35	08/19/16 04:43	1		

**Lab Sample ID: LCS 160-262574/2-A**  
**Matrix: Water**  
**Analysis Batch: 265565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	14.02		1.38	1.00	0.121	pCi/L	126	68 - 137

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

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

**Lab Sample ID: LCS 160-262574/2-A**  
**Matrix: Water**  
**Analysis Batch: 265565**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.4		40 - 110

**Lab Sample ID: 400-124841-C-1-B DU**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 262574**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.000	U	0.1030		0.0709	1.00	0.100	pCi/L	0.76	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	88.0		40 - 110

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

**Lab Sample ID: MB 160-262400/1-A**  
**Matrix: Water**  
**Analysis Batch: 264774**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 262400**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.09691	U	0.251	0.251	1.00	0.438	pCi/L	07/27/16 18:45	08/15/16 12:25	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110	07/27/16 18:45	08/15/16 12:25	1
Y Carrier	83.7		40 - 110	07/27/16 18:45	08/15/16 12:25	1

**Lab Sample ID: LCS 160-262400/2-A**  
**Matrix: Water**  
**Analysis Batch: 264774**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262400**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.6	22.88		2.42	1.00	0.593	pCi/L	117	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.7		40 - 110
Y Carrier	80.7		40 - 110

**Lab Sample ID: LCSD 160-262400/3-A**  
**Matrix: Water**  
**Analysis Batch: 264774**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 262400**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	19.6	22.51		2.36	1.00	0.430	pCi/L	115	56 - 140	0.08	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

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

**Lab Sample ID: LCSD 160-262400/3-A**  
**Matrix: Water**  
**Analysis Batch: 264774**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 262400**

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	84.1		40 - 110

**Lab Sample ID: MB 160-262577/1-A**  
**Matrix: Water**  
**Analysis Batch: 264773**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 262577**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2429	U	0.196	0.197	1.00	0.389	pCi/L	07/28/16 17:23	08/15/16 12:31	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110	07/28/16 17:23	08/15/16 12:31	1
Y Carrier	90.8		40 - 110	07/28/16 17:23	08/15/16 12:31	1

**Lab Sample ID: LCS 160-262577/2-A**  
**Matrix: Water**  
**Analysis Batch: 264773**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 262577**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	15.64		1.65	1.00	0.382	pCi/L	106	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.4		40 - 110
Y Carrier	89.0		40 - 110

**Lab Sample ID: 400-124841-C-1-D DU**  
**Matrix: Water**  
**Analysis Batch: 264773**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 262577**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.339	U	0.1128	U	0.196	1.00	0.333	pCi/L	0.53	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	88.0		40 - 110
Y Carrier	87.9		40 - 110



Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND  
 CHAIN OF CUSTODY RECORD**

LAB USE ONLY

Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_  
 Page 1 of 1

LabPac Cheyenne Whitmine

Sample Shipment Date:<sup>8</sup> 7/22/16

Sample Received Date:<sup>9</sup>

<sup>12</sup> Standard Turnaround Time

Company:<sup>1</sup> Southern Company Services  
 Report To: Jojo Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Jojo Abraham  
 Plant Wansley  
 Project Location:<sup>5</sup>  
 Account Number:<sup>6</sup>

Sampled By:<sup>10</sup> Carlier - Kristen Jurinko  
 Ben Hodges, Chris Gargan, Travis Martine

# of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Special Instructions:<sup>7</sup> CCR + Wansley LF State GW

PO# GR10624814 / Project # 40007041

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>				PRESERVATIVE <sup>20</sup>	Sample Type Key: 22	Comments
		Date	Time					HNO3	Ice	HNO3	N			
	GWC-32	7/22/16	0925	Montezuma well - landfill	G	GW	3	1	1					
	GWC-33	7/22/16	1010	↓	↓	↓	3	1	0					
	GWC-12	7/22/16	0955	↓	↓	↓	3	1	1					
	GWC-7	7/22/16	1045	↓	↓	↓	3	1	1					
	EB-2 (LF)	7/22/16	1000	Equipment Blank-landfill	W	W	3	1	1					
	EB-1 (LF)	7/22/16	0945	↓	↓	↓	3	1	1					
	FB-1 (LF)	7/22/16	0910	Field Blank-landfill	↓	↓	3	1	1					
	FB-2 (LF)	7/22/16	0930	↓	↓	↓	3	1	1					



400-124898 COC

LAB USE ONLY: Sample Receipt Information<sup>28</sup>

Relinquished by:<sup>26</sup> [Signature] Date/Time 7/22/16 1300  
 Received by:<sup>27</sup> [Signature] Date/Time 7/23/16 915  
 Relinquished by:  
 Date/Time  
 Received by:  
 Date/Time

0.96 / 0.46 / 1.42 g/L



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-124898-3

SDG Number: Landfill

**Login Number: 124898**

**List Number: 1**

**Creator: Janish, Carl M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C, 0.4°C, 1.4°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.	N/A	
Residual Chlorine Checked.	N/A	



# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

## 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	07-31-16 *
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 Wansley

TestAmerica Job ID: 400-124898-3  
SDG: Landfill

## 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	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

\* 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: 400-124972-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/11/2016 4:13:12 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

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**Job ID: 400-124972-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative  
400-124972-1**

**HPLC/IC**

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWC-9 (400-124972-4) and FD-4 (LF) (400-124972-5). Elevated reporting limits (RLs) are provided.

**Metals**

Method(s) 7470A: The method blank for prep batch 315706 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.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## Client Sample ID: GWA-28

## Lab Sample ID: 400-124972-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.7		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0021	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.0010	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00037	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	2.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.019		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0087	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00040	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000089	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-124972-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Antimony	0.0022	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Arsenic	0.00056	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00073	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-124972-3

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
Barium	0.047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0034	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-9

## Lab Sample ID: 400-124972-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	55		5.0	4.5	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 Wansley

TestAmerica Job ID: 400-124972-1  
 SDG: Landfill

## Client Sample ID: GWC-9 (Continued)

## Lab Sample ID: 400-124972-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.096	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	20		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00046	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.17		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.26		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	23		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.051		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	200		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-4 (LF)

## Lab Sample ID: 400-124972-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	54		5.0	4.5	mg/L	5		300.0	Total/NA
Fluoride	0.091	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
Barium	0.17		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.27		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	23		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.050		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	210		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 Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124972-1	GWA-28	Water	07/25/16 13:50	07/26/16 11:40
400-124972-2	GWC-18	Water	07/25/16 12:35	07/26/16 11:40
400-124972-3	GWC-19	Water	07/25/16 14:07	07/26/16 11:40
400-124972-4	GWC-9	Water	07/25/16 13:40	07/26/16 11:40
400-124972-5	FD-4 (LF)	Water	07/25/16 00:00	07/26/16 11:40

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: GWA-28**

**Date Collected: 07/25/16 13:50**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-1**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			07/27/16 23:12	1
Fluoride	1.7		0.20	0.082	mg/L			07/27/16 23:12	1
Sulfate	1.1		1.0	0.70	mg/L			07/27/16 23:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0021	J	0.0025	0.0010	mg/L		07/27/16 08:45	07/28/16 13:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/27/16 08:45	07/28/16 13:13	5
Barium	0.0010	J	0.0025	0.00049	mg/L		07/27/16 08:45	07/28/16 13:13	5
Beryllium	0.00037	J	0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:13	5
Boron	<0.021		0.050	0.021	mg/L		07/27/16 08:45	07/28/16 13:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:13	5
Calcium	2.4		0.25	0.13	mg/L		07/27/16 08:45	07/28/16 13:13	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 08:45	07/28/16 13:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/27/16 08:45	07/28/16 13:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 08:45	07/28/16 13:13	5
Lithium	0.019		0.0050	0.0032	mg/L		07/27/16 08:45	07/28/16 13:13	5
Molybdenum	0.0087	J	0.015	0.00085	mg/L		07/27/16 08:45	07/28/16 13:13	5
Selenium	0.00040	J	0.0013	0.00024	mg/L		07/27/16 08:45	07/28/16 13:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 08:45	07/28/16 13:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000089	J B	0.00020	0.000070	mg/L		07/26/16 15:46	07/29/16 14:14	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		5.0	3.4	mg/L			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: GWC-18**

**Date Collected: 07/25/16 12:35**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			07/27/16 23:35	1
Fluoride	<0.082		0.20	0.082	mg/L			07/27/16 23:35	1
Sulfate	<0.70		1.0	0.70	mg/L			07/27/16 23:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0022</b>	<b>J</b>	0.0025	0.0010	mg/L		07/27/16 08:45	07/28/16 13:27	5
<b>Arsenic</b>	<b>0.00056</b>	<b>J</b>	0.0013	0.00046	mg/L		07/27/16 08:45	07/28/16 13:27	5
<b>Barium</b>	<b>0.031</b>		0.0025	0.00049	mg/L		07/27/16 08:45	07/28/16 13:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:27	5
Boron	<0.021		0.050	0.021	mg/L		07/27/16 08:45	07/28/16 13:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:27	5
<b>Calcium</b>	<b>5.3</b>		0.25	0.13	mg/L		07/27/16 08:45	07/28/16 13:27	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 08:45	07/28/16 13:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/27/16 08:45	07/28/16 13:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 08:45	07/28/16 13:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/27/16 08:45	07/28/16 13:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/27/16 08:45	07/28/16 13:27	5
<b>Selenium</b>	<b>0.00073</b>	<b>J</b>	0.0013	0.00024	mg/L		07/27/16 08:45	07/28/16 13:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 08:45	07/28/16 13:27	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/26/16 15:46	07/29/16 14:15	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>54</b>		5.0	3.4	mg/L			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: GWC-19**  
**Date Collected: 07/25/16 14:07**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			07/27/16 23:58	1
Fluoride	<0.082		0.20	0.082	mg/L			07/27/16 23:58	1
Sulfate	<0.70		1.0	0.70	mg/L			07/27/16 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		07/27/16 08:45	07/28/16 13:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/27/16 08:45	07/28/16 13:35	5
<b>Barium</b>	<b>0.047</b>		0.0025	0.00049	mg/L		07/27/16 08:45	07/28/16 13:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:35	5
Boron	<0.021		0.050	0.021	mg/L		07/27/16 08:45	07/28/16 13:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:35	5
<b>Calcium</b>	<b>4.7</b>		0.25	0.13	mg/L		07/27/16 08:45	07/28/16 13:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 08:45	07/28/16 13:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/27/16 08:45	07/28/16 13:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 08:45	07/28/16 13:35	5
<b>Lithium</b>	<b>0.0034</b>	<b>J</b>	0.0050	0.0032	mg/L		07/27/16 08:45	07/28/16 13:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/27/16 08:45	07/28/16 13:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/27/16 08:45	07/28/16 13:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 08:45	07/28/16 13:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00013</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/26/16 15:46	07/29/16 14:25	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>44</b>		5.0	3.4	mg/L			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 07/25/16 13:40**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55		5.0	4.5	mg/L			07/28/16 21:54	5
Fluoride	0.096	J	0.20	0.082	mg/L			07/28/16 01:06	1
Sulfate	20		1.0	0.70	mg/L			07/28/16 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		07/27/16 08:45	07/28/16 13:40	5
Arsenic	0.00046	J	0.0013	0.00046	mg/L		07/27/16 08:45	07/28/16 13:40	5
Barium	0.17		0.0025	0.00049	mg/L		07/27/16 08:45	07/28/16 13:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:40	5
Boron	0.26		0.050	0.021	mg/L		07/27/16 08:45	07/28/16 13:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:40	5
Calcium	23		0.25	0.13	mg/L		07/27/16 08:45	07/28/16 13:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 08:45	07/28/16 13:40	5
Cobalt	0.051		0.0025	0.00040	mg/L		07/27/16 08:45	07/28/16 13:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 08:45	07/28/16 13:40	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		07/27/16 08:45	07/28/16 13:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/27/16 08:45	07/28/16 13:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/27/16 08:45	07/28/16 13:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 08:45	07/28/16 13:40	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/26/16 15:46	07/29/16 14:26	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: FD-4 (LF)**

**Date Collected: 07/25/16 00:00**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-5**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54		5.0	4.5	mg/L			07/28/16 23:03	5
Fluoride	0.091	J	0.20	0.082	mg/L			07/28/16 01:29	1
Sulfate	19		1.0	0.70	mg/L			07/28/16 01:29	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		07/27/16 08:45	07/28/16 13:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/27/16 08:45	07/28/16 13:44	5
Barium	0.17		0.0025	0.00049	mg/L		07/27/16 08:45	07/28/16 13:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:44	5
Boron	0.27		0.050	0.021	mg/L		07/27/16 08:45	07/28/16 13:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:44	5
Calcium	23		0.25	0.13	mg/L		07/27/16 08:45	07/28/16 13:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 08:45	07/28/16 13:44	5
Cobalt	0.050		0.0025	0.00040	mg/L		07/27/16 08:45	07/28/16 13:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 08:45	07/28/16 13:44	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		07/27/16 08:45	07/28/16 13:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/27/16 08:45	07/28/16 13:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/27/16 08:45	07/28/16 13:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 08:45	07/28/16 13:44	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/26/16 15:46	07/29/16 14:28	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		5.0	3.4	mg/L			07/28/16 16:48	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## 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 Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: GWA-28**  
**Date Collected: 07/25/16 13:50**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/27/16 23:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315883	07/27/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 13:13	RJB	TAL PEN
Total/NA	Prep	7470A			315706	07/26/16 15:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: GWC-18**  
**Date Collected: 07/25/16 12:35**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/27/16 23:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315883	07/27/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 13:27	RJB	TAL PEN
Total/NA	Prep	7470A			315706	07/26/16 15:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: GWC-19**  
**Date Collected: 07/25/16 14:07**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/27/16 23:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315883	07/27/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 13:35	RJB	TAL PEN
Total/NA	Prep	7470A			315706	07/26/16 15:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 14:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: GWC-9**  
**Date Collected: 07/25/16 13:40**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/28/16 01:06	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	316290	07/28/16 21:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315883	07/27/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 13:40	RJB	TAL PEN
Total/NA	Prep	7470A			315706	07/26/16 15:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 14:26	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

**Client Sample ID: GWC-9**

**Date Collected: 07/25/16 13:40**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: FD-4 (LF)**

**Date Collected: 07/25/16 00:00**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/28/16 01:29	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	316290	07/28/16 23:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315883	07/27/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 13:44	RJB	TAL PEN
Total/NA	Prep	7470A			315706	07/26/16 15:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 14:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	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 Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 316018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total/NA	Water	300.0	
400-124972-2	GWC-18	Total/NA	Water	300.0	
400-124972-3	GWC-19	Total/NA	Water	300.0	
400-124972-4	GWC-9	Total/NA	Water	300.0	
400-124972-5	FD-4 (LF)	Total/NA	Water	300.0	
MB 400-316018/4	Method Blank	Total/NA	Water	300.0	
LCS 400-316018/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316018/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-124709-B-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-124709-B-24 MS	Matrix Spike	Total/NA	Water	300.0	

### Analysis Batch: 316290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-4	GWC-9	Total/NA	Water	300.0	
400-124972-5	FD-4 (LF)	Total/NA	Water	300.0	
MB 400-316290/4	Method Blank	Total/NA	Water	300.0	
LCS 400-316290/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316290/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125086-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-125086-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 315706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total/NA	Water	7470A	
400-124972-2	GWC-18	Total/NA	Water	7470A	
400-124972-3	GWC-19	Total/NA	Water	7470A	
400-124972-4	GWC-9	Total/NA	Water	7470A	
400-124972-5	FD-4 (LF)	Total/NA	Water	7470A	
MB 400-315706/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-315706/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-124920-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-124920-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 315883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total Recoverable	Water	3005A	
400-124972-2	GWC-18	Total Recoverable	Water	3005A	
400-124972-3	GWC-19	Total Recoverable	Water	3005A	
400-124972-4	GWC-9	Total Recoverable	Water	3005A	
400-124972-5	FD-4 (LF)	Total Recoverable	Water	3005A	
MB 400-315883/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-315883/25-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124874-R-4-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124874-R-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 316214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total Recoverable	Water	6020	315883

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## Metals (Continued)

### Analysis Batch: 316214 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-2	GWC-18	Total Recoverable	Water	6020	315883
400-124972-3	GWC-19	Total Recoverable	Water	6020	315883
400-124972-4	GWC-9	Total Recoverable	Water	6020	315883
400-124972-5	FD-4 (LF)	Total Recoverable	Water	6020	315883
MB 400-315883/1-A ^5	Method Blank	Total Recoverable	Water	6020	315883
LCS 400-315883/25-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315883
400-124874-R-4-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	315883
400-124874-R-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	315883

### Analysis Batch: 316383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total/NA	Water	7470A	315706
400-124972-2	GWC-18	Total/NA	Water	7470A	315706
400-124972-3	GWC-19	Total/NA	Water	7470A	315706
400-124972-4	GWC-9	Total/NA	Water	7470A	315706
400-124972-5	FD-4 (LF)	Total/NA	Water	7470A	315706
MB 400-315706/14-A	Method Blank	Total/NA	Water	7470A	315706
LCS 400-315706/15-A	Lab Control Sample	Total/NA	Water	7470A	315706
400-124920-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	315706
400-124920-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	315706

## General Chemistry

### Analysis Batch: 316211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total/NA	Water	SM 2540C	
400-124972-2	GWC-18	Total/NA	Water	SM 2540C	
400-124972-3	GWC-19	Total/NA	Water	SM 2540C	
400-124972-4	GWC-9	Total/NA	Water	SM 2540C	
400-124972-5	FD-4 (LF)	Total/NA	Water	SM 2540C	
MB 400-316211/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-316211/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124972-1 DU	GWA-28	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-316018/4**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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			07/27/16 12:06	1
Fluoride	<0.082		0.20	0.082	mg/L			07/27/16 12:06	1
Sulfate	<0.70		1.0	0.70	mg/L			07/27/16 12:06	1

**Lab Sample ID: LCS 400-316018/5**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-316018/6**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	10.6		mg/L		106	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

**Lab Sample ID: 400-124709-B-14 MSD**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	3.4		10.0	13.4		mg/L		99	80 - 120	2	20
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120	1	20
Sulfate	1.6		10.0	12.1		mg/L		105	80 - 120	3	20

**Lab Sample ID: 400-124709-B-24 MS**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	19		10.0	30.0		mg/L		107	80 - 120
Fluoride	0.27		10.0	12.2		mg/L		119	80 - 120
Sulfate	150	E	10.0	158	E 4	mg/L		101	80 - 120

**Lab Sample ID: MB 400-316290/4**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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			07/28/16 18:29	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 18:29	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 18:29	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-316290/5**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	9.78		mg/L		98	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-316290/6**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	9.76		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	0	15

**Lab Sample ID: 400-125086-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	280	E	10.0	282	E 4	mg/L		58	80 - 120
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120
Sulfate	640	E	10.0	658	E 4	mg/L		213	80 - 120

**Lab Sample ID: 400-125086-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	280	E	10.0	283	E 4	mg/L		67	80 - 120	0	20
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120	0	20
Sulfate	640	E	10.0	661	E 4	mg/L		244	80 - 120	0	20

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

**Lab Sample ID: MB 400-315883/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315883**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/27/16 08:45	07/28/16 13:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/27/16 08:45	07/28/16 13:04	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/27/16 08:45	07/28/16 13:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:04	5
Boron	<0.021		0.050	0.021	mg/L		07/27/16 08:45	07/28/16 13:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/27/16 08:45	07/28/16 13:04	5
Calcium	<0.13		0.25	0.13	mg/L		07/27/16 08:45	07/28/16 13:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/27/16 08:45	07/28/16 13:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/27/16 08:45	07/28/16 13:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/27/16 08:45	07/28/16 13:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/27/16 08:45	07/28/16 13:04	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

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

**Lab Sample ID: MB 400-315883/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315883**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/27/16 08:45	07/28/16 13:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/27/16 08:45	07/28/16 13:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/27/16 08:45	07/28/16 13:04	5

**Lab Sample ID: LCS 400-315883/25-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315883**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.100	0.107		mg/L		107	80 - 120
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	0.100	0.0953		mg/L		95	80 - 120
Beryllium	0.100	0.0980		mg/L		98	80 - 120
Boron	0.200	0.187		mg/L		94	80 - 120
Cadmium	0.100	0.101		mg/L		101	80 - 120
Calcium	10.0	9.70		mg/L		97	80 - 120
Chromium	0.100	0.103		mg/L		103	80 - 120
Cobalt	0.100	0.105		mg/L		105	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Lithium	0.100	0.0996		mg/L		100	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120
Thallium	0.0200	0.0205		mg/L		103	80 - 120

**Lab Sample ID: 400-124874-R-4-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315883**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0576		mg/L		115	75 - 125
Arsenic	0.0014		0.0500	0.0576		mg/L		113	75 - 125
Barium	0.13		0.0500	0.177		mg/L		101	75 - 125
Beryllium	<0.00034		0.0500	0.0499		mg/L		100	75 - 125
Boron	0.16		0.100	0.270		mg/L		113	75 - 125
Cadmium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125
Calcium	110		5.00	125	4	mg/L		257	75 - 125
Chromium	<0.0011		0.0500	0.0536		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0521		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0518		mg/L		104	75 - 125
Lithium	<0.0032		0.0500	0.0492		mg/L		98	75 - 125
Molybdenum	<0.00085		0.0500	0.0545		mg/L		109	75 - 125
Selenium	<0.00024		0.0500	0.0534		mg/L		107	75 - 125
Thallium	<0.000085		0.0100	0.0107		mg/L		107	75 - 125



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

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

**Lab Sample ID: 400-124874-R-4-C MSD ^5**

**Matrix: Water**

**Analysis Batch: 316214**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 315883**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0555		mg/L		111	75 - 125	4	20
Arsenic	0.0014		0.0500	0.0559		mg/L		109	75 - 125	3	20
Barium	0.13		0.0500	0.177		mg/L		101	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0485		mg/L		97	75 - 125	3	20
Boron	0.16		0.100	0.251		mg/L		94	75 - 125	7	20
Cadmium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125	1	20
Calcium	110		5.00	122	4	mg/L		192	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0522		mg/L		104	75 - 125	3	20
Cobalt	<0.00040		0.0500	0.0512		mg/L		102	75 - 125	2	20
Lead	<0.00035		0.0500	0.0502		mg/L		100	75 - 125	3	20
Lithium	<0.0032		0.0500	0.0493		mg/L		99	75 - 125	0	20
Molybdenum	<0.00085		0.0500	0.0533		mg/L		107	75 - 125	2	20
Selenium	<0.00024		0.0500	0.0518		mg/L		104	75 - 125	3	20
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-315706/14-A**

**Matrix: Water**

**Analysis Batch: 316383**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 315706**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000116	J	0.00020	0.000070	mg/L		07/26/16 09:18	07/29/16 14:36	1

**Lab Sample ID: LCS 400-315706/15-A**

**Matrix: Water**

**Analysis Batch: 316383**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 315706**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00107		mg/L		106	80 - 120

**Lab Sample ID: 400-124920-B-1-B MS**

**Matrix: Water**

**Analysis Batch: 316383**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 315706**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00220		mg/L		109	80 - 120

**Lab Sample ID: 400-124920-B-1-C MSD**

**Matrix: Water**

**Analysis Batch: 316383**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 315706**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00221		mg/L		109	80 - 120	0	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-1  
 SDG: Landfill

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

**Lab Sample ID: MB 400-316211/1**  
**Matrix: Water**  
**Analysis Batch: 316211**

**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			07/28/16 16:48	1

**Lab Sample ID: LCS 400-316211/2**  
**Matrix: Water**  
**Analysis Batch: 316211**

**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	278		mg/L		95	78 - 122

**Lab Sample ID: 400-124972-1 DU**  
**Matrix: Water**  
**Analysis Batch: 316211**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	38		38.0		mg/L		0	5

**Georgia Power Environmental Laboratory**  
**NELAP Certification #E57554**

2480 Maner Road, BIN 39110

Atlanta, Georgia 30339

Phone: (404) 799-2100

Company: 8-530-2100

Company:<sup>1</sup> Southern Company Services  
 Report To Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special \_\_\_\_\_  
 Instructions:<sup>7</sup> Wansley LF CCR GW

**ANALYSIS REQUEST AND**  
**CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_

<sup>11</sup> Page 1 of 1

Sample Shipment Date:<sup>8</sup> 7/25/16  <sup>12</sup> Standard Turnaround Time

Sample Received Date:<sup>9</sup> \_\_\_\_\_  
 Sampled By:<sup>10</sup> Golder - Kristen Junke  # of Business Days (Rush)  
Ben Hodges, Travis Martinez (Must be cleared through Env. Lab. Prior to shipment)

*[Signature]*  
 Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE <sup>20</sup>				Sample Type Key: <b>22</b>			
HNO3 N	Ice I	HNO3 N		G-Grab	O-Other	C-Composite	
ANALYSIS REQUESTED <sup>21</sup>				Matrix Key: <b>23</b>			
Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 SW-846 9315 and 9320		O-Oil	S-Solid	SL-Sludge	W-Wipe
				SW-Surface Water		GW-Ground Water	
				WW-Waste Water		DW-Drinking Water	
				Preservative Key: <b>24</b>			
				H-Hydrochloric Acid N-Nitric Acid			
				S-Sulfuric Acid SH-Sodium Hydroxide			
				SB-Sodium Bisulfate P-Phosphoric Acid			
				ST-Sodium Thiosulfate I-Ice U-Unpreserved			
LAB USE ONLY <sup>25</sup>				Comments			

LAB USE ONLY <sup>14</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 SW-846 9315 and 9320								
		Date	Time															
	GWA28	7/25/16	1350	Background well - landfill	G	GW	3	1	1	1								
	GWC-18	7/25/16	1335	monitoring well - landfill			3	1	1	1								
	GWC-19	7/25/16	1407	↓			3	1	1	1								
	GWC-9	7/25/16	1340	↓			3	1	1	1								
	FD-4 (LF)	7/25/16	—	field duplicate - landfill			3	1	1	1								



400-124872 COC

**LAB USE ONLY: Sample Receipt Information <sup>28</sup>**

Relinquished by:<sup>26</sup> *[Signature]* Date/Time 7/25/16 1730

Received by:<sup>27</sup> *[Signature]* Date/Time 7/26/16 11:40 0.4°C, 0.2°C IRG

Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-124972-1

SDG Number: Landfill

**Login Number: 124972**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	0.4°C, 0.2°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 Wansley

TestAmerica Job ID: 400-124972-1  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

\* 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: 400-124972-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

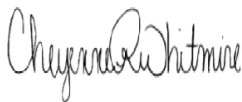
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/29/2016 4:55:22 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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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 Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Job ID: 400-124972-3**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-124972-3

#### RAD

Method(s) 9315: Radium-226 Prep Batch 160-263217: The barium carrier recovery (33%) is outside the lower control limit (40%) for the following sample: GWC-18 (400-124972-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample (see prep NCM 91531). The QC samples associated with the batch have acceptable carrier recoveries indicating the presence of matrix interference.

Method(s) 9320: Radium-228 Prep Batch 160-263219: The barium carrier recovery (33%) is outside the lower control limit (40%) for the following sample: GWC-18 (400-124972-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample (see prep NCM 91532). The QC samples associated with the batch have acceptable carrier recoveries indicating the presence of matrix interference.

Method(s) 9320: Radium-228 Prep Batch 160-263219: The radium-228 detection goal was not met for the following sample due to the low carrier recovery (33%): GWC-18 (400-124972-2). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-263219: The barium carrier recovery is outside lower control limit (40%) for the following sample: GWC-18 (400-124972-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference. The pellet was noted as small throughout the in-growth process.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-263217: The barium carrier recovery is outside lower control limit (40%) for the following sample: GWC-18 (400-124972-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference. The pellet was noted as small throughout the in-growth process.





# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124972-1	GWA-28	Water	07/25/16 13:50	07/26/16 11:40
400-124972-2	GWC-18	Water	07/25/16 12:35	07/26/16 11:40
400-124972-3	GWC-19	Water	07/25/16 14:07	07/26/16 11:40
400-124972-4	GWC-9	Water	07/25/16 13:40	07/26/16 11:40
400-124972-5	FD-4 (LF)	Water	07/25/16 00:00	07/26/16 11:40

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: GWA-28**

**Date Collected: 07/25/16 13:50**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0231	U	0.0565	0.0565	1.00	0.131	pCi/L	08/03/16 12:28	08/24/16 07:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.9		40 - 110					08/03/16 12:28	08/24/16 07:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.182	U	0.527	0.527	1.00	0.972	pCi/L	08/03/16 12:34	08/20/16 13:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.9		40 - 110					08/03/16 12:34	08/20/16 13:24	1
Y Carrier	68.0		40 - 110					08/03/16 12:34	08/20/16 13:24	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	-0.205	U	0.530	0.530	5.00	0.972	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: GWC-18**  
**Date Collected: 07/25/16 12:35**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0171	U	0.133	0.133	1.00	0.251	pCi/L	08/03/16 12:28	08/24/16 07:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	33.0	X	40 - 110					08/03/16 12:28	08/24/16 07:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.291	U G	0.613	0.614	1.00	1.05	pCi/L	08/03/16 12:34	08/20/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	33.0	X	40 - 110					08/03/16 12:34	08/20/16 13:26	1
Y Carrier	94.6		40 - 110					08/03/16 12:34	08/20/16 13:26	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	0.308	U	0.628	0.628	5.00	1.05	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-124972-3**

**Date Collected: 07/25/16 14:07**

**Matrix: Water**

**Date Received: 07/26/16 11:40**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0484	U	0.0889	0.0890	1.00	0.155	pCi/L	08/03/16 12:28	08/24/16 07:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	56.7		40 - 110					08/03/16 12:28	08/24/16 07:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0721	U	0.371	0.371	1.00	0.653	pCi/L	08/03/16 12:34	08/20/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	56.7		40 - 110					08/03/16 12:34	08/20/16 13:26	1
Y Carrier	86.7		40 - 110					08/03/16 12:34	08/20/16 13:26	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	0.121	U	0.382	0.382	5.00	0.653	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 07/25/16 13:40**  
**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-4**  
**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	0.243		0.0923	0.0948	1.00	0.106	pCi/L	08/03/16 12:28	08/24/16 07:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					08/03/16 12:28	08/24/16 07:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0350	U	0.217	0.218	1.00	0.387	pCi/L	08/03/16 12:34	08/20/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					08/03/16 12:34	08/20/16 13:26	1
Y Carrier	87.1		40 - 110					08/03/16 12:34	08/20/16 13:26	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	0.278	U	0.236	0.237	5.00	0.387	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: FD-4 (LF)**

**Lab Sample ID: 400-124972-5**

Date Collected: 07/25/16 00:00

Matrix: Water

Date Received: 07/26/16 11:40

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.153		0.0831	0.0842	1.00	0.111	pCi/L	08/03/16 12:28	08/24/16 07:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.2		40 - 110					08/03/16 12:28	08/24/16 07:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00498	U	0.282	0.282	1.00	0.500	pCi/L	08/03/16 12:34	08/20/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.2		40 - 110					08/03/16 12:34	08/20/16 13:26	1
Y Carrier	87.9		40 - 110					08/03/16 12:34	08/20/16 13:26	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	0.158	U	0.294	0.294	5.00	0.500	pCi/L		08/29/16 12:52	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.
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 Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: GWA-28**

**Date Collected: 07/25/16 13:50**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263217	08/03/16 12:28	MCJ	TAL SL
Total/NA	Analysis	9315		1	266368	08/24/16 07:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263219	08/03/16 12:34	MCJ	TAL SL
Total/NA	Analysis	9320		1	265836	08/20/16 13:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

**Client Sample ID: GWC-18**

**Date Collected: 07/25/16 12:35**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263217	08/03/16 12:28	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263219	08/03/16 12:34	MCJ	TAL SL
Total/NA	Analysis	9320		1	265836	08/20/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

**Client Sample ID: GWC-19**

**Date Collected: 07/25/16 14:07**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263217	08/03/16 12:28	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263219	08/03/16 12:34	MCJ	TAL SL
Total/NA	Analysis	9320		1	265836	08/20/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

**Client Sample ID: GWC-9**

**Date Collected: 07/25/16 13:40**

**Date Received: 07/26/16 11:40**

**Lab Sample ID: 400-124972-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263217	08/03/16 12:28	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263219	08/03/16 12:34	MCJ	TAL SL
Total/NA	Analysis	9320		1	265836	08/20/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

**Client Sample ID: FD-4 (LF)**

**Lab Sample ID: 400-124972-5**

**Date Collected: 07/25/16 00:00**

**Matrix: Water**

**Date Received: 07/26/16 11:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263217	08/03/16 12:28	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263219	08/03/16 12:34	MCJ	TAL SL
Total/NA	Analysis	9320		1	265836	08/20/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	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 Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

## Rad

### Prep Batch: 263217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total/NA	Water	PrecSep-21	
400-124972-2	GWC-18	Total/NA	Water	PrecSep-21	
400-124972-3	GWC-19	Total/NA	Water	PrecSep-21	
400-124972-4	GWC-9	Total/NA	Water	PrecSep-21	
400-124972-5	FD-4 (LF)	Total/NA	Water	PrecSep-21	
MB 160-263217/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-263217/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-124972-3 DU	GWC-19	Total/NA	Water	PrecSep-21	

### Prep Batch: 263219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124972-1	GWA-28	Total/NA	Water	PrecSep_0	
400-124972-2	GWC-18	Total/NA	Water	PrecSep_0	
400-124972-3	GWC-19	Total/NA	Water	PrecSep_0	
400-124972-4	GWC-9	Total/NA	Water	PrecSep_0	
400-124972-5	FD-4 (LF)	Total/NA	Water	PrecSep_0	
MB 160-263219/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-263219/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-124972-3 DU	GWC-19	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

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

**Lab Sample ID: MB 160-263217/1-A**  
**Matrix: Water**  
**Analysis Batch: 266368**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263217**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02736	U	0.0477	0.0478	1.00	0.0844	pCi/L	08/03/16 12:28	08/24/16 07:38	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	82.1		40 - 110		08/03/16 12:28	08/24/16 07:38	1			

**Lab Sample ID: LCS 160-263217/2-A**  
**Matrix: Water**  
**Analysis Batch: 266368**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263217**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	13.70		1.36	1.00	0.132	pCi/L	123	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	84.3		40 - 110						

**Lab Sample ID: 400-124972-3 DU**  
**Matrix: Water**  
**Analysis Batch: 266370**

**Client Sample ID: GWC-19**  
**Prep Type: Total/NA**  
**Prep Batch: 263217**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0484	U	0.1560		0.0886	1.00	0.121	pCi/L	0.61	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	83.2		40 - 110							

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

**Lab Sample ID: MB 160-263219/1-A**  
**Matrix: Water**  
**Analysis Batch: 265836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263219**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3830	U	0.252	0.254	1.00	0.385	pCi/L	08/03/16 12:34	08/20/16 13:23	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	82.1		40 - 110		08/03/16 12:34	08/20/16 13:23	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	88.2		40 - 110		08/03/16 12:34	08/20/16 13:23	1			

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-124972-3  
 SDG: Landfill

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

**Lab Sample ID: LCS 160-263219/2-A**  
**Matrix: Water**  
**Analysis Batch: 265836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263219**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	17.34		1.87	1.00	0.453	pCi/L	118	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.3		40 - 110
Y Carrier	85.2		40 - 110

**Lab Sample ID: 400-124972-3 DU**  
**Matrix: Water**  
**Analysis Batch: 265836**

**Client Sample ID: GWC-19**  
**Prep Type: Total/NA**  
**Prep Batch: 263219**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0721	U	0.2234	U	0.253	1.00	0.414	pCi/L	0.24	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	83.2		40 - 110
Y Carrier	87.1		40 - 110

**Georgia Power Environmental Laboratory**  
**NELAP Certification #E57554**

2480 Maner Road, BIN 39110

Atlanta, Georgia 30339

Phone: (404) 799-2100

Company: 8-530-2100

Company:<sup>1</sup> Southern Company Services  
 Report To Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special \_\_\_\_\_  
 Instructions:<sup>7</sup> Wansley LF CCR GW

**ANALYSIS REQUEST AND**  
**CHAIN OF CUSTODY RECORD**

<b>LAB USE ONLY</b>	Work Order No. _____
	Reviewed By: _____
Page <u>1</u> of <u>1</u>	

Sample Shipment Date:<sup>8</sup> 7/25/16  <sup>12</sup> Standard Turnaround Time

Sample Received Date:<sup>9</sup> \_\_\_\_\_  
 Sampled By:<sup>10</sup> Golder - Kristen Junke  # of Business Days (Rush)  
Ben Hodges, Travis Martinez (Must be cleared through Env. Lab. Prior to shipment)

*[Signature]*  
 Signature

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE <sup>20</sup>				Sample Type Key: <b>22</b>			
HNO3 N	Ice I	HNO3 N		G-Grab	O-Other	C-Composite	
ANALYSIS REQUESTED <sup>21</sup>				Matrix Key: <b>23</b>			
				O-Oil	S-Solid	SL-Sludge	W-Wipe
				SW-Surface Water		GW-Ground Water	
				WW-Waste Water		DW-Drinking Water	
				Preservative Key: <b>24</b>			
				H-Hydrochloric Acid N-Nitric Acid			
				S-Sulfuric Acid SH-Sodium Hydroxide			
				SB-Sodium Bisulfate P-Phosphoric Acid			
				ST-Sodium Thiosulfate I-Ice U-Unpreserved			
LAB USE ONLY <sup>25</sup>				Comments			

LAB USE ONLY <sup>14</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 SW-846 9315 and 9320	LAB USE ONLY <sup>25</sup>			
		Date	Time								Comments			
	GWA28	7/25/16	1350	Background well - landfill	G	GW	3	1	1	1				
	GWC-18	7/25/16	1335	monitoring well - landfill			3	1	1	1				
	GWC-19	7/25/16	1407	↓			3	1	1	1				
	GWC-9	7/25/16	1340	↓			3	1	1	1				
	FD-4 (LF)	7/25/16	-	field duplicate - landfill			3	1	1	1				



LAB USE ONLY: Sample Receipt Information <sup>28</sup>	
Relinquished by: <sup>26</sup> <i>[Signature]</i>	Date/Time <u>7/25/16 1730</u>
Received by: <sup>27</sup> <i>[Signature]</i>	Date/Time <u>7/26/16 11:40</u>
Relinquished by:	Date/Time
Received by:	Date/Time

0.4°C, 0.2°C IRG

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-124972-3

SDG Number: Landfill

**Login Number: 124972**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	0.4°C, 0.2°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 Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

## 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	07-31-16 *
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 Wansley

TestAmerica Job ID: 400-124972-3  
SDG: Landfill

## 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	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	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	08-31-16 *

\* 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: 400-125052-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

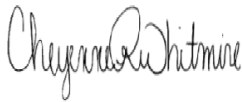
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/11/2016 4:14:15 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

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**Job ID: 400-125052-1**

---

**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative  
400-125052-1**

**HPLC/IC**

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-14 (400-125052-12). Elevated reporting limits (RLs) are provided.

**Metals**

Method(s) 7470A: The method blank for prep batch 316111 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.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Client Sample ID: FB-4 (LF)

## Lab Sample ID: 400-125052-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00070	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable

## Client Sample ID: EB-4 (LF)

## Lab Sample ID: 400-125052-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00066	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: FB-3 (LF)

## Lab Sample ID: 400-125052-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00077	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWC-20

## Lab Sample ID: 400-125052-4

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
Sulfate	0.94	J	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	7.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00042	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0035	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-11

## Lab Sample ID: 400-125052-5

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	0.21		0.20	0.082	mg/L	1		300.0	Total/NA
Arsenic	0.0016		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.25		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0059		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00041	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000096	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	220		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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Client Sample ID: GWC-21

## Lab Sample ID: 400-125052-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-125052-7

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
Antimony	0.0010	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-125052-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	3.0		1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0013	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.0085		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0015	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	1.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0043		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00017	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-26

## Lab Sample ID: 400-125052-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	20		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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Client Sample ID: GWA-2

## Lab Sample ID: 400-125052-10

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	0.91	J	1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0021	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.0078		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: EB-3 (LF)

## Lab Sample ID: 400-125052-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00057	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-125052-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	64		5.0	4.5	mg/L	5		300.0	Total/NA
Fluoride	0.10	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	38		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00096	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.1		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	28		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.32		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.0013		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	330		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-125052-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		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	2.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0023	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-8

## Lab Sample ID: 400-125052-14

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Client Sample ID: GWC-8 (Continued)

## Lab Sample ID: 400-125052-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.9		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
Sulfate	19		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	24		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.044		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0092		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0012	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-125052-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		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	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0068		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0050		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	64		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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125052-1	FB-4 (LF)	Water	07/26/16 11:30	07/27/16 09:42
400-125052-2	EB-4 (LF)	Water	07/26/16 14:39	07/27/16 09:42
400-125052-3	FB-3 (LF)	Water	07/26/16 10:05	07/27/16 09:42
400-125052-4	GWC-20	Water	07/25/16 15:29	07/27/16 09:42
400-125052-5	GWC-11	Water	07/25/16 15:40	07/27/16 09:42
400-125052-6	GWC-21	Water	07/26/16 09:50	07/27/16 09:42
400-125052-7	GWC-22	Water	07/26/16 11:22	07/27/16 09:42
400-125052-8	GWC-27	Water	07/26/16 12:10	07/27/16 09:42
400-125052-9	GWC-26	Water	07/26/16 13:55	07/27/16 09:42
400-125052-10	GWA-2	Water	07/26/16 10:20	07/27/16 09:42
400-125052-11	EB-3 (LF)	Water	07/26/16 14:00	07/27/16 09:42
400-125052-12	GWC-14	Water	07/26/16 12:40	07/27/16 09:42
400-125052-13	GWC-13	Water	07/26/16 10:40	07/27/16 09:42
400-125052-14	GWC-8	Water	07/26/16 09:05	07/27/16 09:42
400-125052-15	GWC-15	Water	07/26/16 14:10	07/27/16 09:42

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: FB-4 (LF)**

**Date Collected: 07/26/16 11:30**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-1**

**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			07/28/16 01:52	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 01:52	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 01:52	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		07/28/16 09:30	07/28/16 20:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 20:59	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 20:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 20:59	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 20:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 20:59	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 20:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 20:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 20:59	5
<b>Lead</b>	<b>0.00070</b>	<b>J</b>	0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 20:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 20:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 20:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 20:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 20:59	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		07/28/16 09:21	07/29/16 12:58	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			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: EB-4 (LF)**

**Date Collected: 07/26/16 14:39**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-2**

**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			07/28/16 02:15	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 02:15	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 02:15	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		07/28/16 09:30	07/28/16 21:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:04	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:04	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:04	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:04	5
<b>Lead</b>	<b>0.00066</b>	<b>J</b>	0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:04	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00013</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:00	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			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: FB-3 (LF)**

**Lab Sample ID: 400-125052-3**

**Date Collected: 07/26/16 10:05**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

### 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			07/28/16 02:38	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 02:38	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 02:38	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		07/28/16 09:30	07/28/16 21:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:08	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:08	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:08	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:08	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:08	5
<b>Lead</b>	<b>0.00077</b>	<b>J</b>	0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:08	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:08	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:01	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			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-20**

**Date Collected: 07/25/16 15:29**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-4**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.1</b>		1.0	0.89	mg/L			07/28/16 03:00	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 03:00	1
<b>Sulfate</b>	<b>0.94</b>	<b>J</b>	1.0	0.70	mg/L			07/28/16 03:00	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		07/28/16 09:30	07/28/16 21:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:13	5
<b>Barium</b>	<b>0.030</b>		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:13	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:13	5
<b>Calcium</b>	<b>7.7</b>		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:13	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:13	5
<b>Cobalt</b>	<b>0.00042</b>	<b>J</b>	0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:13	5
<b>Lithium</b>	<b>0.0035</b>	<b>J</b>	0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00011</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:02	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>80</b>		5.0	3.4	mg/L			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-11**  
**Date Collected: 07/25/16 15:40**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-5**  
**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			07/28/16 04:32	1
Fluoride	0.21		0.20	0.082	mg/L			07/28/16 04:32	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 04:32	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		07/28/16 09:30	07/28/16 21:17	5
Arsenic	0.0016		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:17	5
Barium	0.25		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:17	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:17	5
Calcium	14		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:17	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:17	5
Cobalt	0.0059		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:17	5
Selenium	0.00041	J	0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000096	J B	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:08	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		5.0	3.4	mg/L			07/28/16 16:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
 SDG: Landfill

**Client Sample ID: GWC-21**  
**Date Collected: 07/26/16 09:50**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-6**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.3</b>		1.0	0.89	mg/L			07/28/16 06:26	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 06:26	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 06:26	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		07/28/16 09:30	07/28/16 21:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:21	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:21	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:21	5
<b>Calcium</b>	<b>2.9</b>		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:21	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00013</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:10	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>48</b>		5.0	3.4	mg/L			07/30/16 15:07	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-22**

**Date Collected: 07/26/16 11:22**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-7**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			07/28/16 06:49	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 06:49	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 06:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0010</b>	<b>J</b>	0.0025	0.0010	mg/L		07/28/16 09:30	07/28/16 21:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:39	5
<b>Barium</b>	<b>0.021</b>		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:39	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:39	5
<b>Calcium</b>	<b>9.5</b>		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:39	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>82</b>		5.0	3.4	mg/L			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-27**

**Date Collected: 07/26/16 12:10**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-8**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			07/28/16 07:11	1
Fluoride	1.2		0.20	0.082	mg/L			07/28/16 07:11	1
Sulfate	3.0		1.0	0.70	mg/L			07/28/16 07:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0013	J	0.0025	0.0010	mg/L		07/28/16 09:30	07/28/16 21:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:44	5
Barium	0.0085		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:44	5
Beryllium	0.0015	J	0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:44	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:44	5
Calcium	1.4		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:44	5
Cobalt	0.0043		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:44	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:44	5
Thallium	0.00017	J	0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:44	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16		5.0	3.4	mg/L			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-26**

**Date Collected: 07/26/16 13:55**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-9**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.0</b>		1.0	0.89	mg/L			07/28/16 07:34	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 07:34	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 07:34	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		07/28/16 09:30	07/28/16 21:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:48	5
<b>Barium</b>	<b>0.028</b>		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:48	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:48	5
<b>Calcium</b>	<b>1.4</b>		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:22	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>20</b>		5.0	3.4	mg/L			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 07/26/16 10:20**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-10**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.0</b>		1.0	0.89	mg/L			07/28/16 07:57	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 07:57	1
<b>Sulfate</b>	<b>0.91</b>	<b>J</b>	1.0	0.70	mg/L			07/28/16 07:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0021</b>	<b>J</b>	0.0025	0.0010	mg/L		07/28/16 09:30	07/28/16 21:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 21:53	5
<b>Barium</b>	<b>0.0078</b>		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 21:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:53	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 21:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 21:53	5
<b>Calcium</b>	<b>3.1</b>		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 21:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 21:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 21:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 21:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 21:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 21:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 21:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 21:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:23	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>8.0</b>		5.0	3.4	mg/L			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-125052-11**

**Date Collected: 07/26/16 14:00**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

### 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			07/28/16 08:20	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 08:20	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 08:20	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		07/28/16 09:51	07/29/16 13:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:51	07/29/16 13:44	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/16 09:51	07/29/16 13:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:44	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:51	07/29/16 13:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:44	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/16 09:51	07/29/16 13:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:51	07/29/16 13:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:51	07/29/16 13:44	5
<b>Lead</b>	<b>0.00057</b>	<b>J</b>	0.0013	0.00035	mg/L		07/28/16 09:51	07/29/16 13:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:51	07/29/16 13:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:51	07/29/16 13:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:51	07/29/16 13:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:51	07/29/16 13:44	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:24	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			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-14**

**Date Collected: 07/26/16 12:40**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-12**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64		5.0	4.5	mg/L			07/28/16 23:26	5
Fluoride	0.10	J	0.20	0.082	mg/L			07/28/16 08:44	1
Sulfate	38		1.0	0.70	mg/L			07/28/16 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		07/28/16 09:51	07/29/16 13:49	5
Arsenic	0.00096	J	0.0013	0.00046	mg/L		07/28/16 09:51	07/29/16 13:49	5
Barium	0.11		0.0025	0.00049	mg/L		07/28/16 09:51	07/29/16 13:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:49	5
Boron	1.1		0.050	0.021	mg/L		07/28/16 09:51	07/29/16 13:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:49	5
Calcium	28		0.25	0.13	mg/L		07/28/16 09:51	07/29/16 13:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:51	07/29/16 13:49	5
Cobalt	0.32		0.0025	0.00040	mg/L		07/28/16 09:51	07/29/16 13:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:51	07/29/16 13:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:51	07/29/16 13:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:51	07/29/16 13:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:51	07/29/16 13:49	5
Thallium	0.0013		0.00050	0.000085	mg/L		07/28/16 09:51	07/29/16 13:49	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	330		5.0	3.4	mg/L			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-13**

**Date Collected: 07/26/16 10:40**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-13**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			07/28/16 09:07	1
Fluoride	0.12	J	0.20	0.082	mg/L			07/28/16 09:07	1
Sulfate	2.7		1.0	0.70	mg/L			07/28/16 09:07	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		07/28/16 09:51	07/29/16 13:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:51	07/29/16 13:53	5
Barium	0.0023	J	0.0025	0.00049	mg/L		07/28/16 09:51	07/29/16 13:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:53	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:51	07/29/16 13:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:53	5
Calcium	3.7		0.25	0.13	mg/L		07/28/16 09:51	07/29/16 13:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:51	07/29/16 13:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:51	07/29/16 13:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:51	07/29/16 13:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:51	07/29/16 13:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:51	07/29/16 13:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:51	07/29/16 13:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:51	07/29/16 13:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			07/30/16 15:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 07/26/16 09:05**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-14**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		1.0	0.89	mg/L			07/28/16 10:15	1
Fluoride	0.092	J	0.20	0.082	mg/L			07/28/16 10:15	1
Sulfate	19		1.0	0.70	mg/L			07/28/16 10:15	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		07/28/16 09:51	07/29/16 13:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:51	07/29/16 13:58	5
Barium	0.044		0.0025	0.00049	mg/L		07/28/16 09:51	07/29/16 13:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:58	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:51	07/29/16 13:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:58	5
Calcium	24		0.25	0.13	mg/L		07/28/16 09:51	07/29/16 13:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:51	07/29/16 13:58	5
Cobalt	0.044		0.0025	0.00040	mg/L		07/28/16 09:51	07/29/16 13:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:51	07/29/16 13:58	5
Lithium	0.0092		0.0050	0.0032	mg/L		07/28/16 09:51	07/29/16 13:58	5
Molybdenum	0.0012	J	0.015	0.00085	mg/L		07/28/16 09:51	07/29/16 13:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:51	07/29/16 13:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:51	07/29/16 13:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:28	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			07/30/16 15:07	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-15**  
**Date Collected: 07/26/16 14:10**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-15**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			07/28/16 10:38	1
Fluoride	0.11	J	0.20	0.082	mg/L			07/28/16 10:38	1
Sulfate	1.2		1.0	0.70	mg/L			07/28/16 10:38	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		07/28/16 09:51	07/29/16 14:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:51	07/29/16 14:02	5
Barium	0.0068		0.0025	0.00049	mg/L		07/28/16 09:51	07/29/16 14:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 14:02	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:51	07/29/16 14:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 14:02	5
Calcium	7.2		0.25	0.13	mg/L		07/28/16 09:51	07/29/16 14:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:51	07/29/16 14:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:51	07/29/16 14:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:51	07/29/16 14:02	5
Lithium	0.0050		0.0050	0.0032	mg/L		07/28/16 09:51	07/29/16 14:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:51	07/29/16 14:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:51	07/29/16 14:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:51	07/29/16 14:02	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 13:29	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			07/30/16 15:07	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## 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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: FB-4 (LF)**

**Date Collected: 07/26/16 11:30**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/28/16 01:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 20:59	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 12:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: EB-4 (LF)**

**Date Collected: 07/26/16 14:39**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/28/16 02:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:04	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: FB-3 (LF)**

**Date Collected: 07/26/16 10:05**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/28/16 02:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:08	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: GWC-20**

**Date Collected: 07/25/16 15:29**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316018	07/28/16 03:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:13	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-125052-5**

**Date Collected: 07/25/16 15:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 04:32	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:17	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316211	07/28/16 16:48	TET	TAL PEN

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-125052-6**

**Date Collected: 07/26/16 09:50**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 06:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:21	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-125052-7**

**Date Collected: 07/26/16 11:22**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 06:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:39	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-125052-8**

**Date Collected: 07/26/16 12:10**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 07:11	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:44	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-125052-9**

**Date Collected: 07/26/16 13:55**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 07:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:48	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWA-2**

**Lab Sample ID: 400-125052-10**

**Date Collected: 07/26/16 10:20**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 07:57	TAJ	TAL PEN
Total Recoverable	Prep	3005A			315884	07/28/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316214	07/28/16 21:53	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-125052-11**

**Date Collected: 07/26/16 14:00**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 08:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316118	07/28/16 09:51	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316711	07/29/16 13:44	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-125052-12**

**Date Collected: 07/26/16 12:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 08:44	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	316290	07/28/16 23:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316118	07/28/16 09:51	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316711	07/29/16 13:49	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:25	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-125052-12**

**Date Collected: 07/26/16 12:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-125052-13**

**Date Collected: 07/26/16 10:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 09:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316118	07/28/16 09:51	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316711	07/29/16 13:53	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-125052-14**

**Date Collected: 07/26/16 09:05**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 10:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316118	07/28/16 09:51	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316711	07/29/16 13:58	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	TET	TAL PEN

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-125052-15**

**Date Collected: 07/26/16 14:10**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316156	07/28/16 10:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316118	07/28/16 09:51	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316711	07/29/16 14:02	RJB	TAL PEN
Total/NA	Prep	7470A			316111	07/28/16 09:21	JAP	TAL PEN
Total/NA	Analysis	7470A		1	316383	07/29/16 13:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316539	07/30/16 15:07	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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 316018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total/NA	Water	300.0	
400-125052-2	EB-4 (LF)	Total/NA	Water	300.0	
400-125052-3	FB-3 (LF)	Total/NA	Water	300.0	
400-125052-4	GWC-20	Total/NA	Water	300.0	
MB 400-316018/4	Method Blank	Total/NA	Water	300.0	
LCS 400-316018/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316018/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-124709-B-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-124709-B-24 MS	Matrix Spike	Total/NA	Water	300.0	

### Analysis Batch: 316156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-5	GWC-11	Total/NA	Water	300.0	
400-125052-6	GWC-21	Total/NA	Water	300.0	
400-125052-7	GWC-22	Total/NA	Water	300.0	
400-125052-8	GWC-27	Total/NA	Water	300.0	
400-125052-9	GWC-26	Total/NA	Water	300.0	
400-125052-10	GWA-2	Total/NA	Water	300.0	
400-125052-11	EB-3 (LF)	Total/NA	Water	300.0	
400-125052-12	GWC-14	Total/NA	Water	300.0	
400-125052-13	GWC-13	Total/NA	Water	300.0	
400-125052-14	GWC-8	Total/NA	Water	300.0	
400-125052-15	GWC-15	Total/NA	Water	300.0	
MB 400-316156/41	Method Blank	Total/NA	Water	300.0	
LCS 400-316156/42	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316156/43	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125052-5 MS	GWC-11	Total/NA	Water	300.0	
400-125052-5 MSD	GWC-11	Total/NA	Water	300.0	

### Analysis Batch: 316290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-12	GWC-14	Total/NA	Water	300.0	
MB 400-316290/4	Method Blank	Total/NA	Water	300.0	
LCS 400-316290/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316290/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125086-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-125086-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 315884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total Recoverable	Water	3005A	
400-125052-2	EB-4 (LF)	Total Recoverable	Water	3005A	
400-125052-3	FB-3 (LF)	Total Recoverable	Water	3005A	
400-125052-4	GWC-20	Total Recoverable	Water	3005A	
400-125052-5	GWC-11	Total Recoverable	Water	3005A	
400-125052-6	GWC-21	Total Recoverable	Water	3005A	
400-125052-7	GWC-22	Total Recoverable	Water	3005A	
400-125052-8	GWC-27	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Metals (Continued)

### Prep Batch: 315884 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-9	GWC-26	Total Recoverable	Water	3005A	
400-125052-10	GWA-2	Total Recoverable	Water	3005A	
MB 400-315884/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-315884/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124874-Q-4-B MS ^5	Matrix Spike	Dissolved	Water	3005A	
400-124874-Q-4-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Prep Batch: 316111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total/NA	Water	7470A	
400-125052-2	EB-4 (LF)	Total/NA	Water	7470A	
400-125052-3	FB-3 (LF)	Total/NA	Water	7470A	
400-125052-4	GWC-20	Total/NA	Water	7470A	
400-125052-5	GWC-11	Total/NA	Water	7470A	
400-125052-6	GWC-21	Total/NA	Water	7470A	
400-125052-7	GWC-22	Total/NA	Water	7470A	
400-125052-8	GWC-27	Total/NA	Water	7470A	
400-125052-9	GWC-26	Total/NA	Water	7470A	
400-125052-10	GWA-2	Total/NA	Water	7470A	
400-125052-11	EB-3 (LF)	Total/NA	Water	7470A	
400-125052-12	GWC-14	Total/NA	Water	7470A	
400-125052-13	GWC-13	Total/NA	Water	7470A	
400-125052-14	GWC-8	Total/NA	Water	7470A	
400-125052-15	GWC-15	Total/NA	Water	7470A	
MB 400-316111/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-316111/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125052-4 MS	GWC-20	Total/NA	Water	7470A	
400-125052-4 MSD	GWC-20	Total/NA	Water	7470A	

### Prep Batch: 316118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-11	EB-3 (LF)	Total Recoverable	Water	3005A	
400-125052-12	GWC-14	Total Recoverable	Water	3005A	
400-125052-13	GWC-13	Total Recoverable	Water	3005A	
400-125052-14	GWC-8	Total Recoverable	Water	3005A	
400-125052-15	GWC-15	Total Recoverable	Water	3005A	
MB 400-316118/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-316118/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-125036-E-5-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-125036-E-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 316214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total Recoverable	Water	6020	315884
400-125052-2	EB-4 (LF)	Total Recoverable	Water	6020	315884
400-125052-3	FB-3 (LF)	Total Recoverable	Water	6020	315884
400-125052-4	GWC-20	Total Recoverable	Water	6020	315884
400-125052-5	GWC-11	Total Recoverable	Water	6020	315884
400-125052-6	GWC-21	Total Recoverable	Water	6020	315884
400-125052-7	GWC-22	Total Recoverable	Water	6020	315884
400-125052-8	GWC-27	Total Recoverable	Water	6020	315884

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Metals (Continued)

### Analysis Batch: 316214 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-9	GWC-26	Total Recoverable	Water	6020	315884
400-125052-10	GWA-2	Total Recoverable	Water	6020	315884
MB 400-315884/1-A ^5	Method Blank	Total Recoverable	Water	6020	315884
LCS 400-315884/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	315884
400-124874-Q-4-B MS ^5	Matrix Spike	Dissolved	Water	6020	315884
400-124874-Q-4-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	6020	315884

### Analysis Batch: 316383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total/NA	Water	7470A	316111
400-125052-2	EB-4 (LF)	Total/NA	Water	7470A	316111
400-125052-3	FB-3 (LF)	Total/NA	Water	7470A	316111
400-125052-4	GWC-20	Total/NA	Water	7470A	316111
400-125052-5	GWC-11	Total/NA	Water	7470A	316111
400-125052-6	GWC-21	Total/NA	Water	7470A	316111
400-125052-7	GWC-22	Total/NA	Water	7470A	316111
400-125052-8	GWC-27	Total/NA	Water	7470A	316111
400-125052-9	GWC-26	Total/NA	Water	7470A	316111
400-125052-10	GWA-2	Total/NA	Water	7470A	316111
400-125052-11	EB-3 (LF)	Total/NA	Water	7470A	316111
400-125052-12	GWC-14	Total/NA	Water	7470A	316111
400-125052-13	GWC-13	Total/NA	Water	7470A	316111
400-125052-14	GWC-8	Total/NA	Water	7470A	316111
400-125052-15	GWC-15	Total/NA	Water	7470A	316111
MB 400-316111/14-A	Method Blank	Total/NA	Water	7470A	316111
LCS 400-316111/15-A	Lab Control Sample	Total/NA	Water	7470A	316111
400-125052-4 MS	GWC-20	Total/NA	Water	7470A	316111
400-125052-4 MSD	GWC-20	Total/NA	Water	7470A	316111

### Analysis Batch: 316711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-11	EB-3 (LF)	Total Recoverable	Water	6020	316118
400-125052-12	GWC-14	Total Recoverable	Water	6020	316118
400-125052-13	GWC-13	Total Recoverable	Water	6020	316118
400-125052-14	GWC-8	Total Recoverable	Water	6020	316118
400-125052-15	GWC-15	Total Recoverable	Water	6020	316118
MB 400-316118/1-A ^5	Method Blank	Total Recoverable	Water	6020	316118
LCS 400-316118/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	316118
400-125036-E-5-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	316118
400-125036-E-5-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	316118

## General Chemistry

### Analysis Batch: 316211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total/NA	Water	SM 2540C	
400-125052-2	EB-4 (LF)	Total/NA	Water	SM 2540C	
400-125052-3	FB-3 (LF)	Total/NA	Water	SM 2540C	
400-125052-4	GWC-20	Total/NA	Water	SM 2540C	
400-125052-5	GWC-11	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## General Chemistry (Continued)

### Analysis Batch: 316211 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-316211/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-316211/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125052-4 DU	GWC-20	Total/NA	Water	SM 2540C	

### Analysis Batch: 316539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-6	GWC-21	Total/NA	Water	SM 2540C	
400-125052-7	GWC-22	Total/NA	Water	SM 2540C	
400-125052-8	GWC-27	Total/NA	Water	SM 2540C	
400-125052-9	GWC-26	Total/NA	Water	SM 2540C	
400-125052-10	GWA-2	Total/NA	Water	SM 2540C	
400-125052-11	EB-3 (LF)	Total/NA	Water	SM 2540C	
400-125052-12	GWC-14	Total/NA	Water	SM 2540C	
400-125052-13	GWC-13	Total/NA	Water	SM 2540C	
400-125052-14	GWC-8	Total/NA	Water	SM 2540C	
400-125052-15	GWC-15	Total/NA	Water	SM 2540C	
MB 400-316539/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-316539/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125052-14 DU	GWC-8	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-316018/4**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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			07/27/16 12:06	1
Fluoride	<0.082		0.20	0.082	mg/L			07/27/16 12:06	1
Sulfate	<0.70		1.0	0.70	mg/L			07/27/16 12:06	1

**Lab Sample ID: LCS 400-316018/5**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-316018/6**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	10.6		mg/L		106	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

**Lab Sample ID: 400-124709-B-14 MSD**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	3.4		10.0	13.4		mg/L		99	80 - 120	2	20
Fluoride	<0.082		10.0	10.9		mg/L		109	80 - 120	1	20
Sulfate	1.6		10.0	12.1		mg/L		105	80 - 120	3	20

**Lab Sample ID: 400-124709-B-24 MS**  
**Matrix: Water**  
**Analysis Batch: 316018**

**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	19		10.0	30.0		mg/L		107	80 - 120
Fluoride	0.27		10.0	12.2		mg/L		119	80 - 120
Sulfate	150	E	10.0	158	E 4	mg/L		101	80 - 120

**Lab Sample ID: MB 400-316156/41**  
**Matrix: Water**  
**Analysis Batch: 316156**

**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			07/28/16 03:23	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 03:23	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 03:23	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-316156/42**  
**Matrix: Water**  
**Analysis Batch: 316156**

**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	9.70		mg/L		97	90 - 110
Fluoride	10.0	10.7		mg/L		107	90 - 110
Sulfate	10.0	9.98		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-316156/43**  
**Matrix: Water**  
**Analysis Batch: 316156**

**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	9.67		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	3	15
Sulfate	10.0	9.89		mg/L		99	90 - 110	1	15

**Lab Sample ID: 400-125052-5 MS**  
**Matrix: Water**  
**Analysis Batch: 316156**

**Client Sample ID: GWC-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.8		10.0	16.0		mg/L		102	80 - 120
Fluoride	0.21		10.0	11.5		mg/L		113	80 - 120
Sulfate	<0.70		10.0	10.2		mg/L		102	80 - 120

**Lab Sample ID: 400-125052-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 316156**

**Client Sample ID: GWC-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.8		10.0	16.0		mg/L		102	80 - 120	0	20
Fluoride	0.21		10.0	11.5		mg/L		113	80 - 120	0	20
Sulfate	<0.70		10.0	10.2		mg/L		102	80 - 120	0	20

**Lab Sample ID: MB 400-316290/4**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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			07/28/16 18:29	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 18:29	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 18:29	1

**Lab Sample ID: LCS 400-316290/5**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	9.78		mg/L		98	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-316290/6**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	9.76		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	0	15

**Lab Sample ID: 400-125086-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	280	E	10.0	282	E 4	mg/L		58	80 - 120		
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120		
Sulfate	640	E	10.0	658	E 4	mg/L		213	80 - 120		

**Lab Sample ID: 400-125086-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	280	E	10.0	283	E 4	mg/L		67	80 - 120	0	20
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120	0	20
Sulfate	640	E	10.0	661	E 4	mg/L		244	80 - 120	0	20

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

**Lab Sample ID: MB 400-315884/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315884**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/28/16 09:30	07/28/16 15:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:30	07/28/16 15:35	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/16 09:30	07/28/16 15:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 15:35	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:30	07/28/16 15:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:30	07/28/16 15:35	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/16 09:30	07/28/16 15:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:30	07/28/16 15:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:30	07/28/16 15:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:30	07/28/16 15:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:30	07/28/16 15:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:30	07/28/16 15:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:30	07/28/16 15:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:30	07/28/16 15:35	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

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

**Lab Sample ID: LCS 400-315884/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 315884**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Antimony	0.0500	0.0523		mg/L		105	80 - 120	
Arsenic	0.0500	0.0521		mg/L		104	80 - 120	
Barium	0.0500	0.0457		mg/L		91	80 - 120	
Beryllium	0.0500	0.0475		mg/L		95	80 - 120	
Boron	0.100	0.0971		mg/L		97	80 - 120	
Cadmium	0.0500	0.0493		mg/L		99	80 - 120	
Calcium	5.00	4.73		mg/L		95	80 - 120	
Chromium	0.0500	0.0504		mg/L		101	80 - 120	
Cobalt	0.0500	0.0488		mg/L		98	80 - 120	
Lead	0.0500	0.0486		mg/L		97	80 - 120	
Lithium	0.0500	0.0467		mg/L		93	80 - 120	
Molybdenum	0.0500	0.0499		mg/L		100	80 - 120	
Selenium	0.0500	0.0501		mg/L		100	80 - 120	
Thallium	0.0100	0.00991		mg/L		99	80 - 120	

**Lab Sample ID: MB 400-316118/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316711**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316118**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/28/16 09:51	07/29/16 13:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/16 09:51	07/29/16 13:04	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/16 09:51	07/29/16 13:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:04	5
Boron	<0.021		0.050	0.021	mg/L		07/28/16 09:51	07/29/16 13:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/16 09:51	07/29/16 13:04	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/16 09:51	07/29/16 13:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/16 09:51	07/29/16 13:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/16 09:51	07/29/16 13:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/16 09:51	07/29/16 13:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/16 09:51	07/29/16 13:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/16 09:51	07/29/16 13:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/16 09:51	07/29/16 13:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/16 09:51	07/29/16 13:04	5

**Lab Sample ID: LCS 400-316118/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316711**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316118**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Antimony	0.0500	0.0535		mg/L		107	80 - 120	
Arsenic	0.0500	0.0524		mg/L		105	80 - 120	
Barium	0.0500	0.0466		mg/L		93	80 - 120	
Beryllium	0.0500	0.0480		mg/L		96	80 - 120	
Boron	0.100	0.0925		mg/L		93	80 - 120	
Cadmium	0.0500	0.0512		mg/L		102	80 - 120	
Calcium	5.00	4.91		mg/L		98	80 - 120	
Chromium	0.0500	0.0496		mg/L		99	80 - 120	

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

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

**Lab Sample ID: LCS 400-316118/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316711**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316118**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0471		mg/L		94	80 - 120
Lead	0.0500	0.0482		mg/L		96	80 - 120
Lithium	0.0500	0.0465		mg/L		93	80 - 120
Molybdenum	0.0500	0.0490		mg/L		98	80 - 120
Selenium	0.0500	0.0505		mg/L		101	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

**Lab Sample ID: 400-125036-E-5-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 316711**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316118**

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
Arsenic	0.0032		0.0500	0.0570		mg/L		108	75 - 125
Barium	0.078		0.0500	0.123		mg/L		90	75 - 125
Beryllium	0.00080	J	0.0500	0.0475		mg/L		93	75 - 125
Boron	<0.021		0.100	0.0918		mg/L		92	75 - 125
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125
Calcium	1.0		5.00	6.17		mg/L		103	75 - 125
Chromium	<0.0011		0.0500	0.0511		mg/L		102	75 - 125
Cobalt	0.013		0.0500	0.0626		mg/L		98	75 - 125
Lead	<0.00035		0.0500	0.0477		mg/L		95	75 - 125
Lithium	0.010		0.0500	0.0565		mg/L		93	75 - 125
Molybdenum	<0.00085		0.0500	0.0510		mg/L		102	75 - 125
Selenium	<0.00024		0.0500	0.0515		mg/L		103	75 - 125
Thallium	<0.00085		0.0100	0.0100		mg/L		100	75 - 125

**Lab Sample ID: 400-125036-E-5-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 316711**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316118**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0537		mg/L		107	75 - 125	3	20
Arsenic	0.0032		0.0500	0.0568		mg/L		107	75 - 125	0	20
Barium	0.078		0.0500	0.127		mg/L		97	75 - 125	3	20
Beryllium	0.00080	J	0.0500	0.0499		mg/L		98	75 - 125	5	20
Boron	<0.021		0.100	0.0882		mg/L		88	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	1	20
Calcium	1.0		5.00	6.04		mg/L		100	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0521		mg/L		104	75 - 125	2	20
Cobalt	0.013		0.0500	0.0627		mg/L		99	75 - 125	0	20
Lead	<0.00035		0.0500	0.0484		mg/L		97	75 - 125	1	20
Lithium	0.010		0.0500	0.0580		mg/L		96	75 - 125	3	20
Molybdenum	<0.00085		0.0500	0.0510		mg/L		102	75 - 125	0	20
Selenium	<0.00024		0.0500	0.0510		mg/L		102	75 - 125	1	20
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125	2	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

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

**Lab Sample ID: 400-124874-Q-4-B MS ^5**

**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Matrix Spike**

**Prep Type: Dissolved**  
**Prep Batch: 315884**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Result			Result						
Antimony	<0.0010		0.0500	0.0552		mg/L		110	75 - 125	
Arsenic	0.0014		0.0500	0.0556		mg/L		108	75 - 125	
Barium	0.11		0.0500	0.156		mg/L		94	75 - 125	
Beryllium	<0.00034		0.0500	0.0469		mg/L		94	75 - 125	
Boron	0.14		0.100	0.245		mg/L		105	75 - 125	
Cadmium	<0.00034		0.0500	0.0494		mg/L		99	75 - 125	
Calcium	100		5.00	110	4	mg/L		148	75 - 125	
Chromium	<0.0011		0.0500	0.0509		mg/L		102	75 - 125	
Cobalt	<0.00040		0.0500	0.0502		mg/L		100	75 - 125	
Lead	<0.00035		0.0500	0.0486		mg/L		97	75 - 125	
Lithium	<0.0032		0.0500	0.0475		mg/L		95	75 - 125	
Molybdenum	<0.00085		0.0500	0.0530		mg/L		106	75 - 125	
Selenium	<0.00024		0.0500	0.0498		mg/L		100	75 - 125	
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	

**Lab Sample ID: 400-124874-Q-4-C MSD ^5**

**Matrix: Water**  
**Analysis Batch: 316214**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Dissolved**  
**Prep Batch: 315884**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Result			Result							
Antimony	<0.0010		0.0500	0.0529		mg/L		106	75 - 125	4	20
Arsenic	0.0014		0.0500	0.0539		mg/L		105	75 - 125	3	20
Barium	0.11		0.0500	0.154		mg/L		89	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0457		mg/L		91	75 - 125	2	20
Boron	0.14		0.100	0.238		mg/L		98	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0477		mg/L		95	75 - 125	4	20
Calcium	100		5.00	106	4	mg/L		71	75 - 125	4	20
Chromium	<0.0011		0.0500	0.0494		mg/L		99	75 - 125	3	20
Cobalt	<0.00040		0.0500	0.0489		mg/L		98	75 - 125	3	20
Lead	<0.00035		0.0500	0.0471		mg/L		94	75 - 125	3	20
Lithium	<0.0032		0.0500	0.0461		mg/L		92	75 - 125	3	20
Molybdenum	<0.00085		0.0500	0.0495		mg/L		99	75 - 125	7	20
Selenium	<0.00024		0.0500	0.0489		mg/L		98	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-316111/14-A**

**Matrix: Water**  
**Analysis Batch: 316383**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 316111**

Analyte	MB	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result									
Mercury	0.000103	J	0.00020	0.000070	mg/L		07/28/16 09:21	07/29/16 12:47		1

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

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

**Lab Sample ID: LCS 400-316111/15-A**  
**Matrix: Water**  
**Analysis Batch: 316383**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 316111**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00110		mg/L		109	80 - 120

**Lab Sample ID: 400-125052-4 MS**  
**Matrix: Water**  
**Analysis Batch: 316383**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**  
**Prep Batch: 316111**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00011	J B	0.00201	0.00195		mg/L		92	80 - 120

**Lab Sample ID: 400-125052-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 316383**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**  
**Prep Batch: 316111**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00011	J B	0.00201	0.00201		mg/L		95	80 - 120	3	20

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

**Lab Sample ID: MB 400-316211/1**  
**Matrix: Water**  
**Analysis Batch: 316211**

**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			07/28/16 16:48	1

**Lab Sample ID: LCS 400-316211/2**  
**Matrix: Water**  
**Analysis Batch: 316211**

**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	278		mg/L		95	78 - 122

**Lab Sample ID: 400-125052-4 DU**  
**Matrix: Water**  
**Analysis Batch: 316211**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	80		80.0		mg/L		0	5

**Lab Sample ID: MB 400-316539/1**  
**Matrix: Water**  
**Analysis Batch: 316539**

**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			07/30/16 15:07	1

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-1  
 SDG: Landfill

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

**Lab Sample ID: LCS 400-316539/2**  
**Matrix: Water**  
**Analysis Batch: 316539**

**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	268		mg/L		91	78 - 122

**Lab Sample ID: 400-125052-14 DU**  
**Matrix: Water**  
**Analysis Batch: 316539**

**Client Sample ID: GWC-8**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		160		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

**Georgia Power Environmental Laboratory**  
**NELAP Certification #E57554**  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**  
 Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_

Page 1 of 1

Sample Shipment Date:<sup>8</sup> 7/26/16  <sup>12</sup> Standard Turnaround Time  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_

Company:<sup>1</sup> Southern Company Services  
 Report To: Jojo Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Jojo Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley LF CCR GW

Sampled By:<sup>10</sup> Golden - Kristen Jurino  
Ben Hodges, Travis Martinez  
 # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	PRESERVATIVE <sup>20</sup>			ANALYSIS REQUESTED <sup>21</sup>	Sample Type Key: 22
		Date	Time					HNO3	Ice	HNO3		
	FB-4 (LF)	7/26/16	1130	Field Blank - landfill	G	W*	3					
	EB-4 (LF)	7/26/16	1439	Equipment Blank - landfill								
	FB-3 (LF)	7/26/16	1005	Field Blank - landfill								
	GW C-20	7/26/16	1534	Monitoring well - landfill								
	GW C-11	7/26/16	1540									
	GW C-21	7/26/16	0950									
	GW C-22	7/26/16	1122									
	GW C-27	7/26/16	1210									
	GW C-26	7/26/16	1355									
	GW A-2	7/26/16	1020	Background well - landfill								

Matrix Key: 23  
 O-Oil S-Solid SW-Surface Water WW-Waste Water  
 ST-Surface Water  
 W-Wipe GM-Ground Water DW-Drinking Water  
 Matrix Key: 24  
 H-Hydrochloric Acid N-Nitric Acid  
 S-Sulfuric Acid SH-Sodium Hydroxide  
 SB-Sodium Bisulfate P-Phosphoric Acid  
 ST-Sodium Thiosulfate Hc-U-Unpreserved



Sample Type Key: 22  
 G-Grab O-Other C-Composite  
 Matrix Key: 23  
 O-Oil S-Solid SW-Surface Water WW-Waste Water  
 ST-Surface Water  
 W-Wipe GM-Ground Water DW-Drinking Water  
 Matrix Key: 24  
 H-Hydrochloric Acid N-Nitric Acid  
 S-Sulfuric Acid SH-Sodium Hydroxide  
 SB-Sodium Bisulfate P-Phosphoric Acid  
 ST-Sodium Thiosulfate Hc-U-Unpreserved

LAB USE ONLY: Sample Receipt Information<sup>28</sup>

Relinquished by:<sup>28</sup> [Signature] Date/Time 7/26/16 1730  
 Received by:<sup>27</sup> [Signature] Date/Time 7/27/16 0942  
 Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_

0.4°C, 0.9°C, 0.0°C, 0.2°C, 0.7°C, 0.5°C

JK F

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**  
 Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_

11 Page 12 of 12  
 Standard Turnaround Time

Sample Shipment Date: 7/26/16  
 Sample Received Date: X

Company: Southern Company Services  
 Report To: Joju Abraham  
 Address: 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax: 404-506-7239  
 Contact: Joju Abraham  
 Project Location: Plant Wansley  
 Account Number:  
 Special Instructions: Wansley LF CCR GW

Sampled By: Golden - Kristen Junko  
 Ben Hodges, Travis Martinez  
 # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>			Sample Type Key: 22	Comments
		Date	Time					HNO3	Ice	HNO3	N	N	G-Grab		
	EB-3 (LF)	7/26/16	1400	Equipment Blank - 16 mdfill	G	WF	3								
	GW-C-14	7/26/16	1240	Monitoring well - landfill		GW									
	GW-C-13	7/26/16	1040												
	GW-C-8	7/26/16	0905												
	GW-C-15	7/26/16	1410												

Signature: \_\_\_\_\_  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY: Sample Receipt Information <sup>28</sup>											
Relinquished by: _____ Date/Time: 7/27/16 1700											
Received by: _____ Date/Time: 7/27/16 0912											
Relinquished by: _____ Date/Time: _____											
Received by: _____ Date/Time: _____											

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125052-1

SDG Number: Landfill

**Login Number: 125052**

**List Number: 1**

**Creator: Benforado, Jessica L**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	0.4°C, 0.9°C, 0.0°C, 0.2°C, 0.7°C, 0.5°C IR-5
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 Wansley

TestAmerica Job ID: 400-125052-1  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

\* Certification renewal pending - 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: 400-125052-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/26/2016 1:14:15 PM

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### 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 Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

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**Job ID: 400-125052-3**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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**Job Narrative**  
**400-125052-3**

### **RAD**

Method(s) 9320: Radium-228 Prep Batch 160-263062: The absolute value of the negative result for the following sample is outside the three sigma uncertainty: EB-4 (LF) (400-125052-2). A recount was not possible due to the passing of a full decay cycle of actinium-228. The data has been qualified and reported.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125052-1	FB-4 (LF)	Water	07/26/16 11:30	07/27/16 09:42
400-125052-2	EB-4 (LF)	Water	07/26/16 14:39	07/27/16 09:42
400-125052-3	FB-3 (LF)	Water	07/26/16 10:05	07/27/16 09:42
400-125052-4	GWC-20	Water	07/25/16 15:29	07/27/16 09:42
400-125052-5	GWC-11	Water	07/25/16 15:40	07/27/16 09:42
400-125052-6	GWC-21	Water	07/26/16 09:50	07/27/16 09:42
400-125052-7	GWC-22	Water	07/26/16 11:22	07/27/16 09:42
400-125052-8	GWC-27	Water	07/26/16 12:10	07/27/16 09:42
400-125052-9	GWC-26	Water	07/26/16 13:55	07/27/16 09:42
400-125052-10	GWA-2	Water	07/26/16 10:20	07/27/16 09:42
400-125052-11	EB-3 (LF)	Water	07/26/16 14:00	07/27/16 09:42
400-125052-12	GWC-14	Water	07/26/16 12:40	07/27/16 09:42
400-125052-13	GWC-13	Water	07/26/16 10:40	07/27/16 09:42
400-125052-14	GWC-8	Water	07/26/16 09:05	07/27/16 09:42
400-125052-15	GWC-15	Water	07/26/16 14:10	07/27/16 09:42

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: FB-4 (LF)**

**Lab Sample ID: 400-125052-1**

**Date Collected: 07/26/16 11:30**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0350	U	0.0393	0.0394	1.00	0.0634	pCi/L	08/02/16 15:09	08/24/16 07:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					08/02/16 15:09	08/24/16 07:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0653	U	0.254	0.254	1.00	0.440	pCi/L	08/02/16 16:04	08/18/16 13:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					08/02/16 16:04	08/18/16 13:50	1
Y Carrier	85.2		40 - 110					08/02/16 16:04	08/18/16 13:50	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	0.100	U	0.257	0.257	5.00	0.440	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: EB-4 (LF)**

**Lab Sample ID: 400-125052-2**

**Date Collected: 07/26/16 14:39**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0393	U	0.0454	0.0455	1.00	0.0739	pCi/L	08/02/16 15:09	08/24/16 07:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					08/02/16 15:09	08/24/16 07:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.378	U	0.218	0.221	1.00	0.457	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	88.2		40 - 110					08/02/16 16:04	08/18/16 13:51	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	-0.339	U	0.223	0.226	5.00	0.457	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: FB-3 (LF)**

**Lab Sample ID: 400-125052-3**

**Date Collected: 07/26/16 10:05**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0242	U	0.0367	0.0367	1.00	0.0629	pCi/L	08/02/16 15:09	08/24/16 07:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					08/02/16 15:09	08/24/16 07:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.371	U	0.254	0.256	1.00	0.393	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	88.6		40 - 110					08/02/16 16:04	08/18/16 13:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.396</b>		0.257	0.259	5.00	0.393	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-125052-4**

**Date Collected: 07/25/16 15:29**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00766	U	0.0369	0.0369	1.00	0.0705	pCi/L	08/02/16 15:09	08/24/16 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					08/02/16 15:09	08/24/16 12:13	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0947	U	0.246	0.246	1.00	0.422	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	92.0		40 - 110					08/02/16 16:04	08/18/16 13:51	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	0.102	U	0.248	0.249	5.00	0.422	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-11**

**Date Collected: 07/25/16 15:40**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-5**

**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	0.600		0.116	0.128	1.00	0.0980	pCi/L	08/02/16 15:09	08/24/16 12:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/02/16 15:09	08/24/16 12:14	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0944	U	0.239	0.239	1.00	0.413	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	83.4		40 - 110					08/02/16 16:04	08/18/16 13:51	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	0.694		0.266	0.271	5.00	0.413	pCi/L		08/26/16 11:20	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-21**

**Date Collected: 07/26/16 09:50**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-6**

**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	-0.0993	U	0.0369	0.0379	1.00	0.106	pCi/L	08/02/16 15:09	08/24/16 12:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					08/02/16 15:09	08/24/16 12:14	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.114	U	0.216	0.216	1.00	0.369	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	86.4		40 - 110					08/02/16 16:04	08/18/16 13:51	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	0.0143	U	0.219	0.220	5.00	0.369	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
 SDG: Landfill

**Client Sample ID: GWC-22**

**Date Collected: 07/26/16 11:22**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-7**

**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	-0.0203	U	0.0408	0.0408	1.00	0.0872	pCi/L	08/02/16 15:09	08/24/16 12:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/02/16 15:09	08/24/16 12:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.175	U	0.208	0.209	1.00	0.343	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	86.0		40 - 110					08/02/16 16:04	08/18/16 13:51	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	0.155	U	0.212	0.213	5.00	0.343	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-27**

**Date Collected: 07/26/16 12:10**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-8**

**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	0.675		0.114	0.129	1.00	0.0657	pCi/L	08/02/16 15:09	08/24/16 12:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/02/16 15:09	08/24/16 12:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.982		0.312	0.325	1.00	0.415	pCi/L	08/02/16 16:04	08/18/16 13:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/02/16 16:04	08/18/16 13:51	1
Y Carrier	89.0		40 - 110					08/02/16 16:04	08/18/16 13:51	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	1.66		0.332	0.350	5.00	0.415	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-125052-9**

**Date Collected: 07/26/16 13:55**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0144	U	0.0401	0.0402	1.00	0.0740	pCi/L	08/02/16 15:09	08/24/16 12:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					08/02/16 15:09	08/24/16 12:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0185	U	0.198	0.198	1.00	0.354	pCi/L	08/02/16 16:04	08/18/16 13:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					08/02/16 16:04	08/18/16 13:52	1
Y Carrier	91.2		40 - 110					08/02/16 16:04	08/18/16 13:52	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	0.0329	U	0.202	0.202	5.00	0.354	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
 SDG: Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 07/26/16 10:20**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-10**  
**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	0.0950		0.0590	0.0596	1.00	0.0789	pCi/L	08/02/16 15:09	08/24/16 12:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.8		40 - 110					08/02/16 15:09	08/24/16 12:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0665	U	0.226	0.226	1.00	0.422	pCi/L	08/02/16 16:04	08/18/16 13:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.8		40 - 110					08/02/16 16:04	08/18/16 13:52	1
Y Carrier	94.2		40 - 110					08/02/16 16:04	08/18/16 13:52	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	0.0285	U	0.233	0.234	5.00	0.422	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-125052-11**

**Date Collected: 07/26/16 14:00**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00180	U	0.0368	0.0368	1.00	0.0734	pCi/L	08/02/16 15:09	08/24/16 12:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/02/16 15:09	08/24/16 12:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0610	U	0.184	0.184	1.00	0.346	pCi/L	08/02/16 16:04	08/18/16 13:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/02/16 16:04	08/18/16 13:52	1
Y Carrier	93.1		40 - 110					08/02/16 16:04	08/18/16 13:52	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	-0.0592	U	0.188	0.188	5.00	0.346	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-14**

**Date Collected: 07/26/16 12:40**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-12**

**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	0.407		0.102	0.109	1.00	0.105	pCi/L	08/02/16 15:09	08/24/16 12:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					08/02/16 15:09	08/24/16 12:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.528		0.250	0.254	1.00	0.359	pCi/L	08/02/16 16:04	08/18/16 13:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					08/02/16 16:04	08/18/16 13:53	1
Y Carrier	87.9		40 - 110					08/02/16 16:04	08/18/16 13:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.935		0.270	0.277	5.00	0.359	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-13**

**Date Collected: 07/26/16 10:40**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-13**

**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	0.0291	U	0.0385	0.0386	1.00	0.0644	pCi/L	08/02/16 15:09	08/24/16 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					08/02/16 15:09	08/24/16 12:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.221	U	0.187	0.188	1.00	0.295	pCi/L	08/02/16 16:04	08/18/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					08/02/16 16:04	08/18/16 13:59	1
Y Carrier	94.6		40 - 110					08/02/16 16:04	08/18/16 13:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.250	U	0.191	0.192	5.00	0.295	pCi/L		08/26/16 11:20	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 07/26/16 09:05**  
**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-14**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108		0.0661	0.0668	1.00	0.0942	pCi/L	08/02/16 15:09	08/24/16 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/02/16 15:09	08/24/16 12:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.538		0.252	0.257	1.00	0.358	pCi/L	08/02/16 16:04	08/18/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/02/16 16:04	08/18/16 13:59	1
Y Carrier	87.5		40 - 110					08/02/16 16:04	08/18/16 13:59	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	0.646		0.260	0.265	5.00	0.358	pCi/L		08/26/16 11:20	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-15**

**Date Collected: 07/26/16 14:10**

**Date Received: 07/27/16 09:42**

**Lab Sample ID: 400-125052-15**

**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	0.0638	U	0.0595	0.0597	1.00	0.0940	pCi/L	08/02/16 15:09	08/24/16 12:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					08/02/16 15:09	08/24/16 12:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0646	U	0.207	0.207	1.00	0.361	pCi/L	08/02/16 16:04	08/18/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					08/02/16 16:04	08/18/16 13:59	1
Y Carrier	93.5		40 - 110					08/02/16 16:04	08/18/16 13:59	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	0.128	U	0.216	0.216	5.00	0.361	pCi/L		08/26/16 11:20	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

## 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 Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

## Client Sample ID: FB-4 (LF)

Date Collected: 07/26/16 11:30

Date Received: 07/27/16 09:42

## Lab Sample ID: 400-125052-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:32	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

## Client Sample ID: EB-4 (LF)

Date Collected: 07/26/16 14:39

Date Received: 07/27/16 09:42

## Lab Sample ID: 400-125052-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:32	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

## Client Sample ID: FB-3 (LF)

Date Collected: 07/26/16 10:05

Date Received: 07/27/16 09:42

## Lab Sample ID: 400-125052-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 07:32	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

## Client Sample ID: GWC-20

Date Collected: 07/25/16 15:29

Date Received: 07/27/16 09:42

## Lab Sample ID: 400-125052-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266370	08/24/16 12:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-125052-5**

**Date Collected: 07/25/16 15:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266368	08/24/16 12:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-125052-6**

**Date Collected: 07/26/16 09:50**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266368	08/24/16 12:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-125052-7**

**Date Collected: 07/26/16 11:22**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266368	08/24/16 12:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-125052-8**

**Date Collected: 07/26/16 12:10**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266368	08/24/16 12:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-125052-9**

**Date Collected: 07/26/16 13:55**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWA-2**

**Lab Sample ID: 400-125052-10**

**Date Collected: 07/26/16 10:20**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-125052-11**

**Date Collected: 07/26/16 14:00**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-125052-12**

**Date Collected: 07/26/16 12:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:21	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-125052-13**

**Date Collected: 07/26/16 10:40**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-125052-14**

**Date Collected: 07/26/16 09:05**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	RTM	TAL SL

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-125052-15**

**Date Collected: 07/26/16 14:10**

**Matrix: Water**

**Date Received: 07/27/16 09:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263054	08/02/16 15:09	MCJ	TAL SL
Total/NA	Analysis	9315		1	266374	08/24/16 12:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263062	08/02/16 16:04	MCJ	TAL SL
Total/NA	Analysis	9320		1	265409	08/18/16 13:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	266772	08/26/16 11:20	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 Wansley

TestAmerica Job ID: 400-125052-3  
 SDG: Landfill

## Rad

### Prep Batch: 263054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total/NA	Water	PrecSep-21	
400-125052-2	EB-4 (LF)	Total/NA	Water	PrecSep-21	
400-125052-3	FB-3 (LF)	Total/NA	Water	PrecSep-21	
400-125052-4	GWC-20	Total/NA	Water	PrecSep-21	
400-125052-5	GWC-11	Total/NA	Water	PrecSep-21	
400-125052-6	GWC-21	Total/NA	Water	PrecSep-21	
400-125052-7	GWC-22	Total/NA	Water	PrecSep-21	
400-125052-8	GWC-27	Total/NA	Water	PrecSep-21	
400-125052-9	GWC-26	Total/NA	Water	PrecSep-21	
400-125052-10	GWA-2	Total/NA	Water	PrecSep-21	
400-125052-11	EB-3 (LF)	Total/NA	Water	PrecSep-21	
400-125052-12	GWC-14	Total/NA	Water	PrecSep-21	
400-125052-13	GWC-13	Total/NA	Water	PrecSep-21	
400-125052-14	GWC-8	Total/NA	Water	PrecSep-21	
400-125052-15	GWC-15	Total/NA	Water	PrecSep-21	
MB 160-263054/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-263054/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-125052-4 DU	GWC-20	Total/NA	Water	PrecSep-21	

### Prep Batch: 263062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125052-1	FB-4 (LF)	Total/NA	Water	PrecSep_0	
400-125052-2	EB-4 (LF)	Total/NA	Water	PrecSep_0	
400-125052-3	FB-3 (LF)	Total/NA	Water	PrecSep_0	
400-125052-4	GWC-20	Total/NA	Water	PrecSep_0	
400-125052-5	GWC-11	Total/NA	Water	PrecSep_0	
400-125052-6	GWC-21	Total/NA	Water	PrecSep_0	
400-125052-7	GWC-22	Total/NA	Water	PrecSep_0	
400-125052-8	GWC-27	Total/NA	Water	PrecSep_0	
400-125052-9	GWC-26	Total/NA	Water	PrecSep_0	
400-125052-10	GWA-2	Total/NA	Water	PrecSep_0	
400-125052-11	EB-3 (LF)	Total/NA	Water	PrecSep_0	
400-125052-12	GWC-14	Total/NA	Water	PrecSep_0	
400-125052-13	GWC-13	Total/NA	Water	PrecSep_0	
400-125052-14	GWC-8	Total/NA	Water	PrecSep_0	
400-125052-15	GWC-15	Total/NA	Water	PrecSep_0	
MB 160-263062/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-263062/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-125052-4 DU	GWC-20	Total/NA	Water	PrecSep_0	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

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

**Lab Sample ID: MB 160-263054/1-A**  
**Matrix: Water**  
**Analysis Batch: 266370**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263054**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02210	U	0.0367	0.0367	1.00	0.0642	pCi/L	08/02/16 15:09	08/24/16 07:32	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.2		40 - 110		08/02/16 15:09	08/24/16 07:32	1			

**Lab Sample ID: LCS 160-263054/2-A**  
**Matrix: Water**  
**Analysis Batch: 266370**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263054**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	11.54		1.14	1.00	0.0776	pCi/L	103	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	78.9		40 - 110						

**Lab Sample ID: 400-125052-4 DU**  
**Matrix: Water**  
**Analysis Batch: 266370**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**  
**Prep Batch: 263054**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.00766	U	0.05451	U	0.0451	1.00	0.0663	pCi/L	0.57	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	84.9		40 - 110							

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

**Lab Sample ID: MB 160-263062/1-A**  
**Matrix: Water**  
**Analysis Batch: 265409**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263062**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2043	U	0.283	0.283	1.00	0.472	pCi/L	08/02/16 16:04	08/18/16 13:50	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.2		40 - 110		08/02/16 16:04	08/18/16 13:50	1			
Y Carrier	%Yield	Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	88.6		40 - 110					08/02/16 16:04	08/18/16 13:50	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125052-3  
 SDG: Landfill

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

**Lab Sample ID: LCS 160-263062/2-A**  
**Matrix: Water**  
**Analysis Batch: 265409**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263062**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	16.80		1.81	1.00	0.482	pCi/L	114	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	78.9		40 - 110
Y Carrier	89.0		40 - 110

**Lab Sample ID: 400-125052-4 DU**  
**Matrix: Water**  
**Analysis Batch: 265409**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**  
**Prep Batch: 263062**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0947	U	0.1275	U	0.233	1.00	0.395	pCi/L	0.07	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.9		40 - 110
Y Carrier	93.8		40 - 110

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**LAB USE ONLY**

Work Order No. \_\_\_\_\_  
Reviewed By: \_\_\_\_\_

11 Page 1 of 12  
12 Standard Turnaround Time

Sample Shipment Date:<sup>8</sup> 7/26/16  
Sample Received Date:<sup>9</sup>

Sampled By:<sup>10</sup> Golden - Kristen Jurin  
Ben Hodges, Travis Martinez

# of Business Days (Rush) \_\_\_\_\_  
(Must be cleared through Env. Lab. Prior to shipment)

Southern Company Services  
Report To: Jojo Abraham  
Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
Atlanta, GA 30308  
Phone/Fax:<sup>3</sup> 404-506-7239  
Contact:<sup>4</sup> Jojo Abraham  
Project Location:<sup>5</sup> Plant Wansley  
Account Number:<sup>6</sup> \_\_\_\_\_  
Special Instructions:<sup>7</sup> Wansley LF CCR GW

Signature: \_\_\_\_\_  
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>			PRESERVATIVE <sup>20</sup>	Sample Type Key: 22
		Date	Time					HNO3	Ice	HNO3		
	FB-4 (LF)	7/26/16	1130	Field Blank - landfill	G	W*	3					
	EB-4 (LF)	7/26/16	1439	Equipment Blank - landfill								
	FB-3 (LF)	7/26/16	1005	Field Blank - landfill								
	GW-C-20	7/26/16	1534	Monitoring well - landfill								
	GW-C-11	7/26/16	1540									
	GW-C-21	7/26/16	0950									
	GW-C-22	7/26/16	1122									
	GW-C-27	7/26/16	1210									
	GW-C-26	7/26/16	1355									
	GW-A-2	7/26/16	1020	Background well - landfill								

LAB USE ONLY: Sample Receipt Information:<sup>28</sup>

Relinquished by:<sup>28</sup> \_\_\_\_\_ Date/Time: 7/26/16 1730  
Received by:<sup>27</sup> \_\_\_\_\_ Date/Time: 7/27/16 0942  
Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

0.4°C, 0.9°C, 0.0°C, 0.2°C, 0.7°C, 0.5°C

**LAB USE ONLY**

Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**Georgia Power Environmental Laboratory**  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

11 Page 12 of 12  
 Sample Shipment Date:<sup>8</sup> 7/26/16  
 Sample Received Date:<sup>9</sup> 7/27/16  
 Standard Turnaround Time

Sampled By:<sup>10</sup> Golden - Kristen Junko  
 # of Business Days (Rush) \_\_\_\_\_  
 (Must be cleared through Env. Lab. Prior to shipment)

Ben Hodges, Travis Martinez  
 Signature: [Signature]

Company:<sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley LF CCR GW

PRESERVATIVE <sup>20</sup>		ANALYSIS REQUESTED <sup>21</sup>		Sample Type Key: 22	
HNO3	Ice	HNO3	N	G-Grab	C-Composite
N	I	N	N	O-Oil	S-Solid
				SW-Surface Water	GW-Ground Water
				WW-Waste Water	DW-Drinking Water
				LA-Lake	LS-Stream

LAB USE ONLY <sup>13</sup> LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	17	18	19	20	21	22	23	24	25	26	
		Date	Time															
	EB-3 (LF)	7/26/16	1400	Equipment Blank-16 mdfill	G	WF	3											
	GW-C-14	7/26/16	1240	Monitoring well-16 mdfill	G	GW	1											
	GW-C-13	7/26/16	1040															
	GW-C-8	7/26/16	0905															
	GW-C-15	7/26/16	1410															

LAB USE ONLY <sup>25</sup> Comments																			

LAB USE ONLY: Sample Receipt Information<sup>28</sup>

Relinquished by:<sup>26</sup> [Signature] Date/Time 7/27/16 1730  
 Received by:<sup>27</sup> [Signature] Date/Time 7/27/16 0912  
 Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125052-3

SDG Number: Landfill

**Login Number: 125052**

**List Number: 1**

**Creator: Benforado, Jessica L**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	0.4°C, 0.9°C, 0.0°C, 0.2°C, 0.7°C, 0.5°C IR-5
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 Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

## 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	07-31-16 *
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 Wansley

TestAmerica Job ID: 400-125052-3  
SDG: Landfill

## 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	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	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	08-31-16 *

\* Certification renewal pending - 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: 400-125117-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/11/2016 4:15:44 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

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**Job ID: 400-125117-1**

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**Laboratory: TestAmerica Pensacola**

---

**Narrative**

**Job Narrative**  
**400-125117-1**

**HPLC/IC**

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWA-3 (400-125117-7). Elevated reporting limits (RLs) are provided.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## Client Sample ID: GWC-16

## Lab Sample ID: 400-125117-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1			300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	6.4		0.25	0.13	mg/L	5			6020	Total Recoverable
Chromium	0.0025		0.0025	0.0011	mg/L	5			6020	Total Recoverable
Selenium	0.00029	J	0.0013	0.00024	mg/L	5			6020	Total Recoverable
Mercury	0.000089	J	0.00020	0.000070	mg/L	1			7470A	Total/NA
Total Dissolved Solids	76		5.0	3.4	mg/L	1			SM 2540C	Total/NA

## Client Sample ID: GWC-23

## Lab Sample ID: 400-125117-2

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
Barium	0.0043		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5			6020	Total Recoverable
Mercury	0.000086	J	0.00020	0.000070	mg/L	1			7470A	Total/NA
Total Dissolved Solids	30		5.0	3.4	mg/L	1			SM 2540C	Total/NA

## Client Sample ID: GWC-25

## Lab Sample ID: 400-125117-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	6.3		1.0	0.89	mg/L	1			300.0	Total/NA
Sulfate	6.1		1.0	0.70	mg/L	1			300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Calcium	5.4		0.25	0.13	mg/L	5			6020	Total Recoverable
Cobalt	0.0065		0.0025	0.00040	mg/L	5			6020	Total Recoverable
Selenium	0.00033	J	0.0013	0.00024	mg/L	5			6020	Total Recoverable
Mercury	0.000098	J	0.00020	0.000070	mg/L	1			7470A	Total/NA
Total Dissolved Solids	78		5.0	3.4	mg/L	1			SM 2540C	Total/NA

## Client Sample ID: GWC-31

## Lab Sample ID: 400-125117-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Antimony	0.0027		0.0025	0.0010	mg/L	5			6020	Total Recoverable
Arsenic	0.00055	J	0.0013	0.00046	mg/L	5			6020	Total Recoverable
Barium	0.0033		0.0025	0.00049	mg/L	5			6020	Total Recoverable
Beryllium	0.00076	J	0.0025	0.00034	mg/L	5			6020	Total Recoverable
Calcium	12		0.25	0.13	mg/L	5			6020	Total Recoverable
Chromium	0.0043		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 Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## Client Sample ID: GWC-31 (Continued)

## Lab Sample ID: 400-125117-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0015	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00078	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.022		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0041	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00095	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.00010	J	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWC-24

## Lab Sample ID: 400-125117-5

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
Antimony	0.0019	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.0047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.40		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00095	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000090	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-125117-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	28		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	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0029		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0052		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0013		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.012		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000094	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	210		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-3

## Lab Sample ID: 400-125117-7

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	110		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 Wansley

TestAmerica Job ID: 400-125117-1  
 SDG: Landfill

### Client Sample ID: GWA-3 (Continued)

### Lab Sample ID: 400-125117-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	22		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	250		5.0	3.4	mg/L	1		SM 2540C	Total/NA

### Client Sample ID: GWC-17

### Lab Sample ID: 400-125117-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.70	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000097	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		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 Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125117-1	GWC-16	Water	07/27/16 10:05	07/28/16 09:51
400-125117-2	GWC-23	Water	07/27/16 10:20	07/28/16 09:51
400-125117-3	GWC-25	Water	07/27/16 10:30	07/28/16 09:51
400-125117-4	GWC-31	Water	07/27/16 10:21	07/28/16 09:51
400-125117-5	GWC-24	Water	07/27/16 09:57	07/28/16 09:51
400-125117-6	GWC-10	Water	07/27/16 10:58	07/28/16 09:51
400-125117-7	GWA-3	Water	07/27/16 09:30	07/28/16 09:51
400-125117-8	GWC-17	Water	07/27/16 11:50	07/28/16 09:51

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-16**

**Date Collected: 07/27/16 10:05**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-1**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			07/29/16 02:05	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 02:05	1
Sulfate	<0.70		1.0	0.70	mg/L			07/29/16 02:05	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		08/01/16 09:30	08/01/16 15:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 15:29	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 15:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:29	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 15:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:29	5
<b>Calcium</b>	<b>6.4</b>		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 15:29	5
<b>Chromium</b>	<b>0.0025</b>		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 15:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 15:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 15:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 15:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 15:29	5
<b>Selenium</b>	<b>0.00029</b>	<b>J</b>	0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 15:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 15:29	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000089</b>	<b>J</b>	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 13:55	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>76</b>		5.0	3.4	mg/L			07/30/16 16:10	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-23**

**Date Collected: 07/27/16 10:20**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.1</b>		1.0	0.89	mg/L			07/29/16 02:28	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 02:28	1
Sulfate	<0.70		1.0	0.70	mg/L			07/29/16 02:28	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		08/01/16 09:30	08/01/16 15:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 15:34	5
<b>Barium</b>	<b>0.0043</b>		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 15:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:34	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 15:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:34	5
<b>Calcium</b>	<b>2.9</b>		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 15:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 15:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 15:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 15:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 15:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 15:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 15:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 15:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000086</b>	<b>J</b>	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 13:56	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>30</b>		5.0	3.4	mg/L			07/30/16 16:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-25**

**Date Collected: 07/27/16 10:30**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-3**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.3</b>		1.0	0.89	mg/L			07/29/16 03:36	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 03:36	1
<b>Sulfate</b>	<b>6.1</b>		1.0	0.70	mg/L			07/29/16 03:36	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		08/01/16 09:30	08/01/16 15:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 15:56	5
<b>Barium</b>	<b>0.037</b>		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 15:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:56	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 15:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:56	5
<b>Calcium</b>	<b>5.4</b>		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 15:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 15:56	5
<b>Cobalt</b>	<b>0.0065</b>		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 15:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 15:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 15:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 15:56	5
<b>Selenium</b>	<b>0.00033</b>	<b>J</b>	0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 15:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 15:56	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000098</b>	<b>J</b>	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 13:57	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>78</b>		5.0	3.4	mg/L			07/30/16 16:10	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
 SDG: Landfill

**Client Sample ID: GWC-31**

**Date Collected: 07/27/16 10:21**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-4**

**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0027		0.0025	0.0010	mg/L		08/01/16 09:30	08/01/16 16:14	5
Arsenic	0.00055	J	0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 16:14	5
Barium	0.0033		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 16:14	5
Beryllium	0.00076	J	0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:14	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 16:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:14	5
Calcium	12		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 16:14	5
Chromium	0.0043		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 16:14	5
Cobalt	0.0015	J	0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 16:14	5
Lead	0.00078	J	0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 16:14	5
Lithium	0.022		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 16:14	5
Molybdenum	0.0041	J	0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 16:14	5
Selenium	0.00095	J	0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 16:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 16:14	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	J	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 13:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-24**

**Date Collected: 07/27/16 09:57**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-5**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.9</b>		1.0	0.89	mg/L			07/29/16 03:59	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 03:59	1
Sulfate	<0.70		1.0	0.70	mg/L			07/29/16 03:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0019</b>	<b>J</b>	0.0025	0.0010	mg/L		08/01/16 09:30	08/01/16 16:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 16:19	5
<b>Barium</b>	<b>0.0047</b>		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 16:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:19	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 16:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:19	5
<b>Calcium</b>	<b>0.40</b>		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 16:19	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 16:19	5
<b>Cobalt</b>	<b>0.00095</b>	<b>J</b>	0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 16:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 16:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 16:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 16:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 16:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 16:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000090</b>	<b>J</b>	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 13:59	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>28</b>		5.0	3.4	mg/L			07/30/16 16:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-10**

**Date Collected: 07/27/16 10:58**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-6**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		1.0	0.89	mg/L			07/29/16 04:22	1
Fluoride	1.5		0.20	0.082	mg/L			07/29/16 04:22	1
Sulfate	28		1.0	0.70	mg/L			07/29/16 04:22	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		08/01/16 09:30	08/01/16 16:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 16:23	5
Barium	0.030		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 16:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:23	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 16:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:23	5
Calcium	29		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 16:23	5
Chromium	0.0029		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 16:23	5
Cobalt	0.0052		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 16:23	5
Lead	0.0013		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 16:23	5
Lithium	0.012		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 16:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 16:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 16:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 16:23	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		07/29/16 15:45	08/05/16 14:01	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		5.0	3.4	mg/L			07/30/16 16:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWA-3**  
**Date Collected: 07/27/16 09:30**  
**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-7**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>10</b>		1.0	0.89	mg/L			07/29/16 04:45	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 04:45	1
<b>Sulfate</b>	<b>110</b>		5.0	3.5	mg/L			07/29/16 16:19	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		08/01/16 09:30	08/01/16 16:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 16:28	5
<b>Barium</b>	<b>0.029</b>		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 16:28	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:28	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 16:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:28	5
<b>Calcium</b>	<b>22</b>		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 16:28	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 16:28	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 16:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 16:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 16:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 16:28	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 16:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 16:28	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00011</b>	<b>J</b>	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 14:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>250</b>		5.0	3.4	mg/L			07/30/16 16:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-17**  
**Date Collected: 07/27/16 11:50**  
**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-8**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.4</b>		1.0	0.89	mg/L			07/29/16 05:08	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 05:08	1
<b>Sulfate</b>	<b>0.70</b>	<b>J</b>	1.0	0.70	mg/L			07/29/16 05:08	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		08/01/16 09:30	08/01/16 16:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 16:32	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 16:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:32	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 16:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 16:32	5
<b>Calcium</b>	<b>7.9</b>		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 16:32	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 16:32	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 16:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 16:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 16:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 16:32	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 16:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 16:32	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000097</b>	<b>J</b>	0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 14:22	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			07/30/16 16:10	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## 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
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 Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-16**

**Date Collected: 07/27/16 10:05**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 02:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 15:29	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 13:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

**Client Sample ID: GWC-23**

**Date Collected: 07/27/16 10:20**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 02:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 15:34	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 13:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

**Client Sample ID: GWC-25**

**Date Collected: 07/27/16 10:30**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 03:36	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 15:56	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 13:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

**Client Sample ID: GWC-31**

**Date Collected: 07/27/16 10:21**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 16:14	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 13:58	JAP	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-24**

**Date Collected: 07/27/16 09:57**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 03:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 16:19	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 13:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

**Client Sample ID: GWC-10**

**Date Collected: 07/27/16 10:58**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 04:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 16:23	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 14:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

**Client Sample ID: GWA-3**

**Date Collected: 07/27/16 09:30**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 04:45	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	316379	07/29/16 16:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 16:28	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 14:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

**Client Sample ID: GWC-17**

**Date Collected: 07/27/16 11:50**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	316290	07/29/16 05:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			316385	08/01/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	316792	08/01/16 16:32	RJB	TAL PEN
Total/NA	Prep	7470A			316400	07/29/16 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	317551	08/05/16 14:22	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-125117-8**

**Date Collected: 07/27/16 11:50**

**Matrix: Water**

**Date Received: 07/28/16 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	316542	07/30/16 16:10	TET	TAL PEN

#### Laboratory References:

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

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 316290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total/NA	Water	300.0	
400-125117-2	GWC-23	Total/NA	Water	300.0	
400-125117-3	GWC-25	Total/NA	Water	300.0	
400-125117-5	GWC-24	Total/NA	Water	300.0	
400-125117-6	GWC-10	Total/NA	Water	300.0	
400-125117-7	GWA-3	Total/NA	Water	300.0	
400-125117-8	GWC-17	Total/NA	Water	300.0	
MB 400-316290/4	Method Blank	Total/NA	Water	300.0	
LCS 400-316290/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316290/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125086-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-125086-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 316379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-7	GWA-3	Total/NA	Water	300.0	
MB 400-316379/4	Method Blank	Total/NA	Water	300.0	
LCS 400-316379/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-316379/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-125041-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-125041-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 316385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total Recoverable	Water	3005A	
400-125117-2	GWC-23	Total Recoverable	Water	3005A	
400-125117-3	GWC-25	Total Recoverable	Water	3005A	
400-125117-4	GWC-31	Total Recoverable	Water	3005A	
400-125117-5	GWC-24	Total Recoverable	Water	3005A	
400-125117-6	GWC-10	Total Recoverable	Water	3005A	
400-125117-7	GWA-3	Total Recoverable	Water	3005A	
400-125117-8	GWC-17	Total Recoverable	Water	3005A	
MB 400-316385/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-316385/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-125117-2 MS	GWC-23	Total Recoverable	Water	3005A	
400-125117-2 MSD	GWC-23	Total Recoverable	Water	3005A	

### Prep Batch: 316400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total/NA	Water	7470A	
400-125117-2	GWC-23	Total/NA	Water	7470A	
400-125117-3	GWC-25	Total/NA	Water	7470A	
400-125117-4	GWC-31	Total/NA	Water	7470A	
400-125117-5	GWC-24	Total/NA	Water	7470A	
400-125117-6	GWC-10	Total/NA	Water	7470A	
400-125117-7	GWA-3	Total/NA	Water	7470A	
400-125117-8	GWC-17	Total/NA	Water	7470A	
MB 400-316400/14-A	Method Blank	Total/NA	Water	7470A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## Metals (Continued)

### Prep Batch: 316400 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-316400/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-125104-E-5-C MS	Matrix Spike	Dissolved	Water	7470A	
400-125104-E-5-D MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	

### Analysis Batch: 316792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total Recoverable	Water	6020	316385
400-125117-2	GWC-23	Total Recoverable	Water	6020	316385
400-125117-3	GWC-25	Total Recoverable	Water	6020	316385
400-125117-4	GWC-31	Total Recoverable	Water	6020	316385
400-125117-5	GWC-24	Total Recoverable	Water	6020	316385
400-125117-6	GWC-10	Total Recoverable	Water	6020	316385
400-125117-7	GWA-3	Total Recoverable	Water	6020	316385
400-125117-8	GWC-17	Total Recoverable	Water	6020	316385
MB 400-316385/1-A ^5	Method Blank	Total Recoverable	Water	6020	316385
LCS 400-316385/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	316385
400-125117-2 MS	GWC-23	Total Recoverable	Water	6020	316385
400-125117-2 MSD	GWC-23	Total Recoverable	Water	6020	316385

### Analysis Batch: 317551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total/NA	Water	7470A	316400
400-125117-2	GWC-23	Total/NA	Water	7470A	316400
400-125117-3	GWC-25	Total/NA	Water	7470A	316400
400-125117-4	GWC-31	Total/NA	Water	7470A	316400
400-125117-5	GWC-24	Total/NA	Water	7470A	316400
400-125117-6	GWC-10	Total/NA	Water	7470A	316400
400-125117-7	GWA-3	Total/NA	Water	7470A	316400
400-125117-8	GWC-17	Total/NA	Water	7470A	316400
MB 400-316400/14-A	Method Blank	Total/NA	Water	7470A	316400
LCS 400-316400/15-A	Lab Control Sample	Total/NA	Water	7470A	316400
400-125104-E-5-C MS	Matrix Spike	Dissolved	Water	7470A	316400
400-125104-E-5-D MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	316400

## General Chemistry

### Analysis Batch: 316542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total/NA	Water	SM 2540C	
400-125117-2	GWC-23	Total/NA	Water	SM 2540C	
400-125117-3	GWC-25	Total/NA	Water	SM 2540C	
400-125117-5	GWC-24	Total/NA	Water	SM 2540C	
400-125117-6	GWC-10	Total/NA	Water	SM 2540C	
400-125117-7	GWA-3	Total/NA	Water	SM 2540C	
400-125117-8	GWC-17	Total/NA	Water	SM 2540C	
MB 400-316542/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-316542/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-125151-F-1 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-316290/4**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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			07/28/16 18:29	1
Fluoride	<0.082		0.20	0.082	mg/L			07/28/16 18:29	1
Sulfate	<0.70		1.0	0.70	mg/L			07/28/16 18:29	1

**Lab Sample ID: LCS 400-316290/5**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	9.78		mg/L		98	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-316290/6**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	9.76		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	0	15

**Lab Sample ID: 400-125086-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	280	E	10.0	282	E 4	mg/L		58	80 - 120
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120
Sulfate	640	E	10.0	658	E 4	mg/L		213	80 - 120

**Lab Sample ID: 400-125086-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 316290**

**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	280	E	10.0	283	E 4	mg/L		67	80 - 120	0	20
Fluoride	<0.082		10.0	11.9		mg/L		119	80 - 120	0	20
Sulfate	640	E	10.0	661	E 4	mg/L		244	80 - 120	0	20

**Lab Sample ID: MB 400-316379/4**  
**Matrix: Water**  
**Analysis Batch: 316379**

**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			07/29/16 11:57	1
Fluoride	<0.082		0.20	0.082	mg/L			07/29/16 11:57	1
Sulfate	<0.70		1.0	0.70	mg/L			07/29/16 11:57	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-316379/5**  
**Matrix: Water**  
**Analysis Batch: 316379**

**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	9.64		mg/L		96	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	9.99		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-316379/6**  
**Matrix: Water**  
**Analysis Batch: 316379**

**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	1	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	1	15
Sulfate	10.0	9.79		mg/L		98	90 - 110	2	15

**Lab Sample ID: 400-125041-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 316379**

**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	2300		1000	3300		mg/L		100	80 - 120
Fluoride	<8.2		1000	1140		mg/L		114	80 - 120
Sulfate	<70		1000	1080		mg/L		108	80 - 120

**Lab Sample ID: 400-125041-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 316379**

**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	2300		1000	3300		mg/L		99	80 - 120	0	20
Fluoride	<8.2		1000	1130		mg/L		113	80 - 120	1	20
Sulfate	<70		1000	1100		mg/L		110	80 - 120	1	20

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

**Lab Sample ID: MB 400-316385/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316792**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316385**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/01/16 09:30	08/01/16 15:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/01/16 09:30	08/01/16 15:20	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/01/16 09:30	08/01/16 15:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:20	5
Boron	<0.021		0.050	0.021	mg/L		08/01/16 09:30	08/01/16 15:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/01/16 09:30	08/01/16 15:20	5
Calcium	<0.13		0.25	0.13	mg/L		08/01/16 09:30	08/01/16 15:20	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/01/16 09:30	08/01/16 15:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/01/16 09:30	08/01/16 15:20	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/01/16 09:30	08/01/16 15:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/01/16 09:30	08/01/16 15:20	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

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

**Lab Sample ID: MB 400-316385/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 316792**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316385**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/01/16 09:30	08/01/16 15:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/01/16 09:30	08/01/16 15:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/01/16 09:30	08/01/16 15:20	5

**Lab Sample ID: LCS 400-316385/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 316792**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316385**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0542		mg/L		108	80 - 120
Arsenic	0.0500	0.0530		mg/L		106	80 - 120
Barium	0.0500	0.0479		mg/L		96	80 - 120
Beryllium	0.0500	0.0498		mg/L		100	80 - 120
Boron	0.100	0.0955		mg/L		96	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	5.00		mg/L		100	80 - 120
Chromium	0.0500	0.0517		mg/L		103	80 - 120
Cobalt	0.0500	0.0499		mg/L		100	80 - 120
Lead	0.0500	0.0503		mg/L		101	80 - 120
Lithium	0.0500	0.0510		mg/L		102	80 - 120
Molybdenum	0.0500	0.0505		mg/L		101	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Thallium	0.0100	0.00996		mg/L		100	80 - 120

**Lab Sample ID: 400-125117-2 MS**  
**Matrix: Water**  
**Analysis Batch: 316792**

**Client Sample ID: GWC-23**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316385**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0570		mg/L		114	75 - 125
Arsenic	<0.00046		0.0500	0.0541		mg/L		108	75 - 125
Barium	0.0043		0.0500	0.0529		mg/L		97	75 - 125
Beryllium	<0.00034		0.0500	0.0500		mg/L		100	75 - 125
Boron	<0.021		0.100	0.108		mg/L		108	75 - 125
Cadmium	<0.00034		0.0500	0.0521		mg/L		104	75 - 125
Calcium	2.9		5.00	7.94		mg/L		100	75 - 125
Chromium	<0.0011		0.0500	0.0524		mg/L		105	75 - 125
Cobalt	<0.00040		0.0500	0.0515		mg/L		103	75 - 125
Lead	<0.00035		0.0500	0.0509		mg/L		102	75 - 125
Lithium	<0.0032		0.0500	0.0522		mg/L		104	75 - 125
Molybdenum	<0.00085		0.0500	0.0502		mg/L		100	75 - 125
Selenium	<0.00024		0.0500	0.0531		mg/L		106	75 - 125
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

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

**Lab Sample ID: 400-125117-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 316792**

**Client Sample ID: GWC-23**  
**Prep Type: Total Recoverable**  
**Prep Batch: 316385**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0559		mg/L		112	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0543		mg/L		109	75 - 125	0	20
Barium	0.0043		0.0500	0.0523		mg/L		96	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125	1	20
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0516		mg/L		103	75 - 125	1	20
Calcium	2.9		5.00	8.17		mg/L		105	75 - 125	3	20
Chromium	<0.0011		0.0500	0.0534		mg/L		107	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0517		mg/L		103	75 - 125	0	20
Lead	<0.00035		0.0500	0.0512		mg/L		102	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0512		mg/L		102	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0506		mg/L		101	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0530		mg/L		106	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	3	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-316400/14-A**  
**Matrix: Water**  
**Analysis Batch: 317551**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 316400**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/29/16 15:45	08/05/16 13:33	1

**Lab Sample ID: LCS 400-316400/15-A**  
**Matrix: Water**  
**Analysis Batch: 317551**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 316400**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000979		mg/L		97	80 - 120

**Lab Sample ID: 400-125104-E-5-C MS**  
**Matrix: Water**  
**Analysis Batch: 317551**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 316400**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000092	J	0.00201	0.00196		mg/L		93	80 - 120

**Lab Sample ID: 400-125104-E-5-D MSD**  
**Matrix: Water**  
**Analysis Batch: 317551**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 316400**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000092	J	0.00201	0.00178		mg/L		84	80 - 120	10	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-1  
 SDG: Landfill

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

**Lab Sample ID: MB 400-316542/1**  
**Matrix: Water**  
**Analysis Batch: 316542**

**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			07/30/16 16:10	1

**Lab Sample ID: LCS 400-316542/2**  
**Matrix: Water**  
**Analysis Batch: 316542**

**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: 400-125151-F-1 DU**  
**Matrix: Water**  
**Analysis Batch: 316542**

**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

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

LAB USE ONLY  
 Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_  
 Page 1 of 1

Sample Shipment Date:<sup>8</sup> 7/27/16  
 <sup>12</sup> Standard Turnaround Time  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_

Company:<sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley LF CCR GW

Sampled By:<sup>10</sup> Golden-Kristen Danks  
Ben Hodges/Tony Martinez, Chris Gargain

# of Business Days (Rush)  
 (Must be cleared through Env. Lab. Prior to shipment)

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED <sup>21</sup>		PRESERVATIVE <sup>20</sup>		Sample Type Key: 22 G-Slab C-Other C-Compart	
		Date	Time					HNO3	Ice	HNO3	N		
	GWOC-16	7/27/16	1005	Monitoring well - landfill	G	GW	3	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 SW-846 9315 and 9320			
	GWOC-23	7/27/16	1020	↓	G	GW	3						
	GWOC-26	7/27/16	1030			G	GW	3					
	GWOC-31	7/27/16	1021			G	GW	1					
	GWOC-24	7/27/16	0957			G	GW	2					
	GWOC-10	7/27/16	1058	↓	G	GW	2						
	GWOC-3	7/27/16	0930			G	GW	2					
	GWOC-17	7/27/16	1150		G	GW	3						

Signature: \_\_\_\_\_  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.  
 Matrix Key: 23  
 O-Oil S-Solid SL-Sludge W-Wipe  
 SW-Surface Water GW-Ground Water  
 WW-Waste Water DW-Drinking Water  
 Preservative Key: 24  
 H-Hydrochloric Acid N-Nitric Acid  
 S-Sulfuric Acid SH-Sodium Hydroxide  
 SB-Sodium Bisulfate P-Phosphoric Acid  
 ST-Sodium Thiosulfate L-Ice U-Unpreserved



400-125117 COC

LAB USE ONLY - Sample Receipt Information <sup>23</sup>	
Relinquished by: <sup>26</sup> _____	Date/Time 7/27/16 1600
Received by: <sup>27</sup> _____	Date/Time 7/28/16 951
Relinquished by:	Date/Time
Received by:	Date/Time

0.0°C  
 0.1°C → IRG  
 0.6°C

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125117-1

SDG Number: Landfill

**Login Number: 125117**

**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, 0.1°C, 0.6°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 <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 Wansley

TestAmerica Job ID: 400-125117-1  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

\* Certification renewal pending - 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: 400-125117-3

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

8/29/2016 5:00:13 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

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**Job ID: 400-125117-3**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative  
400-125117-3**

**RAD**

Method(s) PrecSep\_0: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with Ra228 analytical batch 160-263517. A lab control sample/lab control sample duplicate (LCS/LCSD) was prepared instead.

Method(s) PrecSep-21: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with Ra226 analytical batch 160-263515.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

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 Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-125117-1	GWC-16	Water	07/27/16 10:05	07/28/16 09:51
400-125117-2	GWC-23	Water	07/27/16 10:20	07/28/16 09:51
400-125117-3	GWC-25	Water	07/27/16 10:30	07/28/16 09:51
400-125117-8	GWC-17	Water	07/27/16 11:50	07/28/16 09:51

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-125117-1**

**Date Collected: 07/27/16 10:05**

**Matrix: Water**

**Date Received: 07/28/16 09:51**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00907	U	0.0666	0.0666	1.00	0.124	pCi/L	08/04/16 13:35	08/26/16 07:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					08/04/16 13:35	08/26/16 07:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0551	U	0.226	0.226	1.00	0.410	pCi/L	08/04/16 14:02	08/19/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					08/04/16 14:02	08/19/16 13:26	1
Y Carrier	93.8		40 - 110					08/04/16 14:02	08/19/16 13:26	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	-0.0460	U	0.235	0.235	5.00	0.410	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
 SDG: Landfill

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-125117-2**

**Date Collected: 07/27/16 10:20**

**Matrix: Water**

**Date Received: 07/28/16 09:51**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0367	U	0.0745	0.0746	1.00	0.130	pCi/L	08/04/16 13:35	08/26/16 07:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/04/16 13:35	08/26/16 07:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0459	U	0.182	0.182	1.00	0.340	pCi/L	08/04/16 14:02	08/19/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/04/16 14:02	08/19/16 13:26	1
Y Carrier	94.6		40 - 110					08/04/16 14:02	08/19/16 13:26	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	-0.00916	U	0.197	0.197	5.00	0.340	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
 SDG: Landfill

**Client Sample ID: GWC-25**  
**Date Collected: 07/27/16 10:30**  
**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.127		0.0693	0.0702	1.00	0.0874	pCi/L	08/04/16 13:35	08/26/16 07:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/04/16 13:35	08/26/16 07:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0520	U	0.204	0.205	1.00	0.360	pCi/L	08/04/16 14:02	08/19/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/04/16 14:02	08/19/16 13:26	1
Y Carrier	92.3		40 - 110					08/04/16 14:02	08/19/16 13:26	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	0.179	U	0.216	0.216	5.00	0.360	pCi/L		08/29/16 12:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

**Client Sample ID: GWC-17**  
**Date Collected: 07/27/16 11:50**  
**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-8**  
**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	0.107	U	0.0782	0.0788	1.00	0.117	pCi/L	08/04/16 13:35	08/26/16 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					08/04/16 13:35	08/26/16 11:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.126	U	0.192	0.193	1.00	0.324	pCi/L	08/04/16 14:02	08/19/16 13:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					08/04/16 14:02	08/19/16 13:26	1
Y Carrier	91.6		40 - 110					08/04/16 14:02	08/19/16 13:26	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	0.233	U	0.208	0.208	5.00	0.324	pCi/L		08/29/16 12:52	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

## 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 Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

**Client Sample ID: GWC-16**

**Date Collected: 07/27/16 10:05**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263515	08/04/16 13:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	266768	08/26/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263517	08/04/16 14:02	MCJ	TAL SL
Total/NA	Analysis	9320		1	265562	08/19/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

**Client Sample ID: GWC-23**

**Date Collected: 07/27/16 10:20**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263515	08/04/16 13:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	266768	08/26/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263517	08/04/16 14:02	MCJ	TAL SL
Total/NA	Analysis	9320		1	265562	08/19/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

**Client Sample ID: GWC-25**

**Date Collected: 07/27/16 10:30**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263515	08/04/16 13:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	266768	08/26/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263517	08/04/16 14:02	MCJ	TAL SL
Total/NA	Analysis	9320		1	265562	08/19/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	RTM	TAL SL

**Client Sample ID: GWC-17**

**Date Collected: 07/27/16 11:50**

**Date Received: 07/28/16 09:51**

**Lab Sample ID: 400-125117-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			263515	08/04/16 13:35	MCJ	TAL SL
Total/NA	Analysis	9315		1	266768	08/26/16 11:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			263517	08/04/16 14:02	MCJ	TAL SL
Total/NA	Analysis	9320		1	265562	08/19/16 13:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	267106	08/29/16 12:52	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 Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

## Rad

### Prep Batch: 263515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total/NA	Water	PrecSep-21	
400-125117-2	GWC-23	Total/NA	Water	PrecSep-21	
400-125117-3	GWC-25	Total/NA	Water	PrecSep-21	
400-125117-8	GWC-17	Total/NA	Water	PrecSep-21	
MB 160-263515/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-263515/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-263515/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 263517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-125117-1	GWC-16	Total/NA	Water	PrecSep_0	
400-125117-2	GWC-23	Total/NA	Water	PrecSep_0	
400-125117-3	GWC-25	Total/NA	Water	PrecSep_0	
400-125117-8	GWC-17	Total/NA	Water	PrecSep_0	
MB 160-263517/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-263517/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-263517/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

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

**Lab Sample ID: MB 160-263515/1-A**  
**Matrix: Water**  
**Analysis Batch: 266768**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263515**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1065	U	0.0940	0.0944	1.00	0.147	pCi/L	08/04/16 13:35	08/26/16 07:31	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.2		40 - 110					08/04/16 13:35	08/26/16 07:31	1

**Lab Sample ID: LCS 160-263515/2-A**  
**Matrix: Water**  
**Analysis Batch: 266768**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263515**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	13.88		1.37	1.00	0.0887	pCi/L	124	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	87.5		40 - 110						

**Lab Sample ID: LCSD 160-263515/3-A**  
**Matrix: Water**  
**Analysis Batch: 266768**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 263515**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.2	14.59		1.44	1.00	0.127	pCi/L	131	68 - 137	0.25	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	81.5		40 - 110								

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

**Lab Sample ID: MB 160-263517/1-A**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 263517**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07327	U	0.306	0.306	1.00	0.561	pCi/L	08/04/16 14:02	08/19/16 13:25	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.2		40 - 110					08/04/16 14:02	08/19/16 13:25	1
Y Carrier	81.5		40 - 110					08/04/16 14:02	08/19/16 13:25	1

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-125117-3  
 SDG: Landfill

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

**Lab Sample ID: LCS 160-263517/2-A**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 263517**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	16.75		1.84	1.00	0.505	pCi/L	114	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.5		40 - 110
Y Carrier	72.1		40 - 110

**Lab Sample ID: LCSD 160-263517/3-A**  
**Matrix: Water**  
**Analysis Batch: 265562**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 263517**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.7	15.28		1.69	1.00	0.443	pCi/L	104	56 - 140	0.42	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	81.5		40 - 110
Y Carrier	83.0		40 - 110

Georgia Power Environmental Laboratory  
 NELAP Certification #E57554  
 2480 Maner Road, BIN 39110  
 Atlanta, Georgia 30339  
 Phone: (404) 799-2100  
 Company: 8-530-2100

**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

LAB USE ONLY  
 Work Order No. \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_  
 Page 1 of 1

Sample Shipment Date:<sup>8</sup> 7/27/16  
 Sample Received Date:<sup>9</sup> \_\_\_\_\_  
 <sup>12</sup> Standard Turnaround Time

Company:<sup>1</sup> Southern Company Services  
 Report To: Joju Abraham  
 Address:<sup>2</sup> 241 Ralph McGill Blvd SE B10185  
 Atlanta, GA 30308  
 Phone/Fax:<sup>3</sup> 404-506-7239  
 Contact:<sup>4</sup> Joju Abraham  
 Project Location:<sup>5</sup> Plant Wansley  
 Account Number:<sup>6</sup> \_\_\_\_\_  
 Special Instructions:<sup>7</sup> Wansley LF CCR GW

Sampled By:<sup>10</sup> Golden-Kristen Danks  
 Ben Hodges/Tony's Martinez, Chris Gargain

LAB USE ONLY LAB ID	Sample Number <sup>14</sup>	Collection <sup>15</sup>		Sample Description <sup>16</sup>	Sample Type <sup>17</sup>	Matrix <sup>18</sup>	No. of Containers <sup>19</sup>	ANALYSIS REQUESTED <sup>21</sup>		PRESERVATIVE <sup>20</sup>		Sample Type Key: 22 G-Slab C-Other C-Compart
		Date	Time					HNO3	Ice	HNO3	N	
	GWOC-16	7/27/16	1005	Monitoring well - landfill	G	GW	3	Metals app. III & IV EPA 6020 & EPA 7470	N	I	N	
	GWOC-23	7/27/16	1020	↓	I	I	1	Cl, F, SO4 EPA 300 TDS SM2540C	I	I	N	
	GWOC-26	7/27/16	1030		I	I	1	Radium 226 & 228 SW-846 9315 and 9320	I	I	N	
	GWOC-31	7/27/16	1021		I	I	0		I	I	N	
	GWOC-24	7/27/16	0957		I	I	0		I	I	N	
	GWOC-10	7/27/16	1058	↓	I	I	0		I	I	N	
	GWOC-3	7/27/16	0930		I	I	0		I	I	N	
	GWOC-17	7/27/16	1150		I	I	1		I	I	N	

Signature: \_\_\_\_\_  
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.  
 Matrix Key: 23  
 O-Oil S-Solid SL-Sludge W-Wipe  
 SW-Surface Water GW-Ground Water  
 WW-Waste Water DW-Drinking Water  
 Preservative Key: 24  
 H-Hydrochloric Acid N-Nitric Acid  
 S-Sulfuric Acid SH-Sodium Hydroxide  
 SP-Sodium Bisulfate P-Phosphoric Acid  
 ST-Sodium Thiosulfate L-ice U-Unpreserved  
 LAB USE ONLY  
 Comments



400-125117 COC

LAB USE ONLY - Sample Receipt Information<sup>23</sup>  
 Relinquished by:<sup>26</sup> \_\_\_\_\_ Date/Time 7/27/16 1600 0.0°C  
 Received by:<sup>27</sup> \_\_\_\_\_ Date/Time 7/28/16 951 0.1°C → IRG  
 Relinquished by: \_\_\_\_\_ Date/Time \_\_\_\_\_ 0.6°C  
 Received by: \_\_\_\_\_ Date/Time \_\_\_\_\_

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-125117-3

SDG Number: Landfill

**Login Number: 125117**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 0.1°C, 0.6°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 Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

## 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	08-31-16
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	T104704286-15-9	09-30-16
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	08-31-16

## 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	07-31-16 *
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 Wansley

TestAmerica Job ID: 400-125117-3  
SDG: Landfill

## 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	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	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	08-31-16 *

\* Certification renewal pending - 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: 400-127303-1

TestAmerica Sample Delivery Group: Wansley LF CCR GW

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2016 2:49:38 PM

Cheyenne Whitmire, Project Manager II

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### LINKS

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

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**Job ID: 400-127303-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-127303-1**

**HPLC/IC**

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWC-14 (400-127303-15) and GWC-7 (400-127303-16). Elevated reporting limits (RLs) are provided.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWA-1

## Lab Sample ID: 400-127303-1

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
Barium	0.0086		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.70		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-127303-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.15		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	31		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0075		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-1 (LF)

## Lab Sample ID: 400-127303-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0052		0.0013	0.00035	mg/L	5		6020	Total Recoverable

## Client Sample ID: EB-2 (LF)

## Lab Sample ID: 400-127303-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-2 (LF)

## Lab Sample ID: 400-127303-5

No Detections.

## Client Sample ID: GWC-12

## Lab Sample ID: 400-127303-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.18	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	20		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	33		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0053		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: EB-1 (LF)

## Lab Sample ID: 400-127303-7

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Client Sample ID: EB-1 (LF) (Continued)

## Lab Sample ID: 400-127303-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0021	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-34

## Lab Sample ID: 400-127303-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0052		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	62		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-127303-9

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	2.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-1 (LF)

## Lab Sample ID: 400-127303-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0051		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-2 (LF)

## Lab Sample ID: 400-127303-11

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	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		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 Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWC-5

## Lab Sample ID: 400-127303-12

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
Fluoride	0.084	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	20		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.020		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-3 (LF)

## Lab Sample ID: 400-127303-13

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
Fluoride	0.085	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	16		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	20		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.020		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-127303-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		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	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-127303-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	110		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.16		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00044	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	0.61		0.050	0.021	mg/L	5		6020	Total Recoverable
Cadmium	0.00053	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.014		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 Wansley

TestAmerica Job ID: 400-127303-1  
 SDG: Wansley LF CCR GW

## Client Sample ID: GWC-14 (Continued)

## Lab Sample ID: 400-127303-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0036	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00033	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	350		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-7

## Lab Sample ID: 400-127303-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.22		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	84		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	60		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0036		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.016		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	460		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-6

## Lab Sample ID: 400-127303-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.084	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.014		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0033	J	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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

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 Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127303-1	GWA-1	Water	09/15/16 09:55	09/16/16 08:19
400-127303-2	GWA-4	Water	09/14/16 15:33	09/16/16 08:19
400-127303-3	FB-1 (LF)	Water	09/15/16 10:20	09/16/16 08:19
400-127303-4	EB-2 (LF)	Water	09/15/16 12:35	09/16/16 08:19
400-127303-5	FB-2 (LF)	Water	09/15/16 11:50	09/16/16 08:19
400-127303-6	GWC-12	Water	09/15/16 11:37	09/16/16 08:19
400-127303-7	EB-1 (LF)	Water	09/15/16 12:05	09/16/16 08:19
400-127303-8	GWC-34	Water	09/15/16 10:15	09/16/16 08:19
400-127303-9	GWC-35	Water	09/15/16 12:15	09/16/16 08:19
400-127303-10	FD-1 (LF)	Water	09/15/16 00:00	09/16/16 08:19
400-127303-11	FD-2 (LF)	Water	09/15/16 00:00	09/16/16 08:19
400-127303-12	GWC-5	Water	09/15/16 12:40	09/16/16 08:19
400-127303-13	FD-3 (LF)	Water	09/15/16 00:00	09/16/16 08:19
400-127303-14	GWC-13	Water	09/15/16 13:12	09/16/16 08:19
400-127303-15	GWC-14	Water	09/15/16 14:26	09/16/16 08:19
400-127303-16	GWC-7	Water	09/15/16 14:40	09/16/16 08:19
400-127303-17	GWC-6	Water	09/15/16 15:00	09/16/16 08:19



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-1**  
**Date Collected: 09/15/16 09:55**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			10/08/16 03:28	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 03:28	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 03:28	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		09/28/16 08:30	10/04/16 18:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	10/04/16 18:35	5
<b>Barium</b>	<b>0.0086</b>		0.0025	0.00049	mg/L		09/28/16 08:30	10/04/16 18:35	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	10/04/16 18:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 18:35	5
<b>Calcium</b>	<b>0.70</b>		0.25	0.13	mg/L		09/28/16 08:30	10/04/16 18:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	10/04/16 18:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	10/04/16 18:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	10/04/16 18:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	10/04/16 18:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	10/04/16 18:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	10/04/16 18:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	10/04/16 18:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/05/16 14:25	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		10/04/16 09:31	10/05/16 12:54	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>12</b>		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-4**  
**Date Collected: 09/14/16 15:33**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>17</b>		1.0	0.89	mg/L			10/08/16 03:51	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 03:51	1
<b>Sulfate</b>	<b>9.7</b>		1.0	0.70	mg/L			10/08/16 03:51	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		09/28/16 08:30	10/04/16 18:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	10/04/16 18:39	5
<b>Barium</b>	<b>0.15</b>		0.0025	0.00049	mg/L		09/28/16 08:30	10/04/16 18:39	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	10/04/16 18:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 18:39	5
<b>Calcium</b>	<b>31</b>		0.25	0.13	mg/L		09/28/16 08:30	10/04/16 18:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	10/04/16 18:39	5
<b>Cobalt</b>	<b>0.0075</b>		0.0025	0.00040	mg/L		09/28/16 08:30	10/04/16 18:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	10/04/16 18:39	5
<b>Lithium</b>	<b>0.0041</b>	<b>J</b>	0.0050	0.0032	mg/L		09/28/16 08:30	10/04/16 18:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	10/04/16 18:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	10/04/16 18:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	10/04/16 18:39	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/05/16 14:30	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		10/04/16 09:31	10/05/16 13:00	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>150</b>		5.0	3.4	mg/L			09/21/16 18:24	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-1 (LF)**

**Date Collected: 09/15/16 10:20**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-3**

**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			10/08/16 04:59	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 04:59	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 04:59	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		09/28/16 08:30	10/04/16 18:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	10/04/16 18:44	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/28/16 08:30	10/04/16 18:44	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	10/04/16 18:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 18:44	5
Calcium	<0.13		0.25	0.13	mg/L		09/28/16 08:30	10/04/16 18:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	10/04/16 18:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	10/04/16 18:44	5
<b>Lead</b>	<b>0.0052</b>		0.0013	0.00035	mg/L		09/28/16 08:30	10/04/16 18:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	10/04/16 18:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	10/04/16 18:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	10/04/16 18:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	10/04/16 18:44	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/05/16 14:34	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		10/04/16 09:31	10/05/16 13:02	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			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-2 (LF)**

**Date Collected: 09/15/16 12:35**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-4**

**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			10/08/16 05:22	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 05:22	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 05:22	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		09/28/16 08:30	10/04/16 18:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	10/04/16 18:48	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/28/16 08:30	10/04/16 18:48	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	10/04/16 18:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 18:48	5
Calcium	<0.13		0.25	0.13	mg/L		09/28/16 08:30	10/04/16 18:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	10/04/16 18:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	10/04/16 18:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	10/04/16 18:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	10/04/16 18:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	10/04/16 18:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	10/04/16 18:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	10/04/16 18:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/05/16 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		10/04/16 09:31	10/05/16 13:03	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8.0		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-2 (LF)**

**Date Collected: 09/15/16 11:50**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-5**

**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			10/08/16 05:45	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 05:45	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 05:45	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		09/28/16 08:30	10/04/16 18:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	10/04/16 18:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/28/16 08:30	10/04/16 18:53	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	10/04/16 18:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 18:53	5
Calcium	<0.13		0.25	0.13	mg/L		09/28/16 08:30	10/04/16 18:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	10/04/16 18:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	10/04/16 18:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	10/04/16 18:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	10/04/16 18:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	10/04/16 18:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	10/04/16 18:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	10/04/16 18:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/05/16 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		10/04/16 09:31	10/05/16 13:12	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			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-12**  
**Date Collected: 09/15/16 11:37**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-6**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.89	mg/L			10/08/16 06:08	1
Fluoride	0.18	J	0.20	0.082	mg/L			10/08/16 06:08	1
Sulfate	20		1.0	0.70	mg/L			10/08/16 06:08	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		09/28/16 08:30	09/28/16 19:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	09/28/16 19:37	5
Barium	0.017		0.0025	0.00049	mg/L		09/28/16 08:30	09/28/16 19:37	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	09/28/16 19:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/28/16 19:37	5
Calcium	33		0.25	0.13	mg/L		09/28/16 08:30	09/28/16 19:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	09/28/16 19:37	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	09/28/16 19:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	09/28/16 19:37	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	09/28/16 19:37	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	09/28/16 19:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	09/28/16 19:37	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/30/16 15:14	5
Lithium	0.0053		0.0050	0.0032	mg/L		09/28/16 08:30	09/30/16 15:14	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		10/04/16 09:31	10/05/16 13:13	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-1 (LF)**

**Date Collected: 09/15/16 12:05**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-7**

**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			10/08/16 06:30	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 06:30	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 06:30	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		09/28/16 08:30	09/28/16 19:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	09/28/16 19:42	5
Barium	<b>0.0021</b>	<b>J</b>	0.0025	0.00049	mg/L		09/28/16 08:30	09/28/16 19:42	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	09/28/16 19:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/28/16 19:42	5
Calcium	<0.13		0.25	0.13	mg/L		09/28/16 08:30	09/28/16 19:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	09/28/16 19:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	09/28/16 19:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	09/28/16 19:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	09/28/16 19:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	09/28/16 19:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	09/28/16 19:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/30/16 15:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	09/30/16 15:19	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		10/04/16 09:31	10/05/16 13:14	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			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-34**

**Date Collected: 09/15/16 10:15**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-8**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			10/08/16 06:53	1
Fluoride	0.16	J	0.20	0.082	mg/L			10/08/16 06:53	1
Sulfate	1.6		1.0	0.70	mg/L			10/08/16 06:53	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		09/28/16 08:30	09/28/16 19:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	09/28/16 19:59	5
Barium	0.012		0.0025	0.00049	mg/L		09/28/16 08:30	09/28/16 19:59	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	09/28/16 19:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/28/16 19:59	5
Calcium	2.9		0.25	0.13	mg/L		09/28/16 08:30	09/28/16 19:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	09/28/16 19:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	09/28/16 19:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	09/28/16 19:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	09/28/16 19:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	09/28/16 19:59	5
Thallium	<0.00085		0.00050	0.00085	mg/L		09/28/16 08:30	09/28/16 19:59	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/30/16 15:23	5
Lithium	0.0052		0.0050	0.0032	mg/L		09/28/16 08:30	09/30/16 15:23	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		10/04/16 09:31	10/05/16 13:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		5.0	3.4	mg/L			09/22/16 18:31	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-35**

**Date Collected: 09/15/16 12:15**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-9**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.0</b>		1.0	0.89	mg/L			10/08/16 07:39	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 07:39	1
<b>Sulfate</b>	<b>2.4</b>		1.0	0.70	mg/L			10/08/16 07:39	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		09/28/16 08:30	09/28/16 20:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	09/28/16 20:04	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		09/28/16 08:30	09/28/16 20:04	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	09/28/16 20:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/28/16 20:04	5
<b>Calcium</b>	<b>1.9</b>		0.25	0.13	mg/L		09/28/16 08:30	09/28/16 20:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	09/28/16 20:04	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	09/28/16 20:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	09/28/16 20:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	09/28/16 20:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	09/28/16 20:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	09/28/16 20:04	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/30/16 15:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	09/30/16 15:28	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		10/04/16 09:31	10/05/16 13:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>38</b>		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-1 (LF)**

**Date Collected: 09/15/16 00:00**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-10**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			10/08/16 08:02	1
Fluoride	0.16	J	0.20	0.082	mg/L			10/08/16 08:02	1
Sulfate	1.6		1.0	0.70	mg/L			10/08/16 08:02	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		09/30/16 08:30	10/07/16 14:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 14:36	5
Barium	0.011		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 14:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:36	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 14:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:36	5
Calcium	2.8		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 14:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 14:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 14:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 14:36	5
Lithium	0.0051		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 14:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 14:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 14:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 14:36	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		10/04/16 09:31	10/05/16 13:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-2 (LF)**

**Lab Sample ID: 400-127303-11**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.2</b>		1.0	0.89	mg/L			10/08/16 08:25	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 08:25	1
<b>Sulfate</b>	<b>2.6</b>		1.0	0.70	mg/L			10/08/16 08:25	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		09/30/16 08:30	10/07/16 14:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 14:40	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 14:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:40	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 14:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:40	5
<b>Calcium</b>	<b>1.9</b>		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 14:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 14:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 14:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 14:40	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 14:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 14:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 14:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 14:40	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		10/04/16 09:31	10/05/16 13:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>50</b>		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-5**  
**Date Collected: 09/15/16 12:40**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-12**  
**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			10/08/16 09:33	1
Fluoride	0.084	J	0.20	0.082	mg/L			10/08/16 09:33	1
Sulfate	16		1.0	0.70	mg/L			10/08/16 09:33	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		09/30/16 08:30	10/07/16 14:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 14:45	5
Barium	0.037		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 14:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:45	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 14:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:45	5
Calcium	20		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 14:45	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 14:45	5
Cobalt	0.020		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 14:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 14:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 14:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 14:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 14:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 14:45	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		10/04/16 09:31	10/05/16 13:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		5.0	3.4	mg/L			09/22/16 18:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-3 (LF)**

**Lab Sample ID: 400-127303-13**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

**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			10/08/16 09:56	1
Fluoride	0.085	J	0.20	0.082	mg/L			10/08/16 09:56	1
Sulfate	16		1.0	0.70	mg/L			10/08/16 09:56	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		09/30/16 08:30	10/07/16 14:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 14:49	5
Barium	0.028		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 14:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:49	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 14:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:49	5
Calcium	20		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 14:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 14:49	5
Cobalt	0.020		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 14:49	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 14:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 14:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 14:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 14:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 14:49	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		10/04/16 09:31	10/05/16 13:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			09/22/16 19:12	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-127303-14**

**Date Collected: 09/15/16 13:12**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			10/08/16 10:19	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/08/16 10:19	1
Sulfate	2.6		1.0	0.70	mg/L			10/08/16 10:19	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		09/30/16 08:30	10/07/16 15:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 15:00	5
Barium	0.0026		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 15:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:00	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 15:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:00	5
Calcium	3.7		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 15:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 15:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 15:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 15:00	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 15:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 15:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 15:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 15:00	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		10/04/16 09:31	10/05/16 13:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			09/22/16 19:12	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-14**  
**Date Collected: 09/15/16 14:26**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-15**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>110</b>		5.0	4.5	mg/L			10/10/16 15:10	5
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 10:41	1
<b>Sulfate</b>	<b>13</b>		1.0	0.70	mg/L			10/08/16 10:41	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		09/30/16 08:30	10/07/16 15:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Barium</b>	<b>0.16</b>		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Beryllium</b>	<b>0.00044</b>	<b>J</b>	0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Boron</b>	<b>0.61</b>		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Cadmium</b>	<b>0.00053</b>	<b>J</b>	0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Calcium</b>	<b>30</b>		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 15:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Cobalt</b>	<b>0.014</b>		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 15:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Lithium</b>	<b>0.0036</b>	<b>J</b>	0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 15:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 15:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 15:04	5
<b>Thallium</b>	<b>0.00033</b>	<b>J</b>	0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 15:04	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		10/04/16 09:31	10/05/16 13:30	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>350</b>		5.0	3.4	mg/L			09/22/16 19:12	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-7**  
**Date Collected: 09/15/16 14:40**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-16**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		1.0	0.89	mg/L			10/08/16 11:04	1
Fluoride	0.22		0.20	0.082	mg/L			10/08/16 11:04	1
Sulfate	84		5.0	3.5	mg/L			10/10/16 16:18	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		09/30/16 08:30	10/07/16 15:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 15:09	5
Barium	0.097		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 15:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:09	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 15:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:09	5
Calcium	60		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 15:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 15:09	5
Cobalt	0.0036		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 15:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 15:09	5
Lithium	0.016		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 15:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 15:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 15:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 15:09	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		10/04/16 09:31	10/05/16 13:31	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	460		5.0	3.4	mg/L			09/22/16 19:12	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-6**  
**Date Collected: 09/15/16 15:00**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-17**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.1		1.0	0.89	mg/L			10/08/16 11:27	1
Fluoride	0.084	J	0.20	0.082	mg/L			10/08/16 11:27	1
Sulfate	15		1.0	0.70	mg/L			10/08/16 11:27	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		09/30/16 08:30	10/07/16 15:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 15:13	5
Barium	0.062		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 15:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:13	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 15:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 15:13	5
Calcium	16		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 15:13	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 15:13	5
Cobalt	0.014		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 15:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 15:13	5
Lithium	0.0033	J	0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 15:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 15:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 15:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 15:13	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		10/04/16 09:34	10/05/16 13:32	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			09/22/16 19:12	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## 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, 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 Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-1**

**Date Collected: 09/15/16 09:55**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 03:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 18:35	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 14:25	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 12:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 09/14/16 15:33**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 03:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 18:39	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 14:30	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323633	09/21/16 18:24	TET	TAL PEN

**Client Sample ID: FB-1 (LF)**

**Date Collected: 09/15/16 10:20**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 04:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 18:44	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 14:34	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-2 (LF)**

**Lab Sample ID: 400-127303-4**

**Date Collected: 09/15/16 12:35**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 05:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 18:48	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 14:48	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

**Client Sample ID: FB-2 (LF)**

**Lab Sample ID: 400-127303-5**

**Date Collected: 09/15/16 11:50**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 05:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 18:53	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324311	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 14:53	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-127303-6**

**Date Collected: 09/15/16 11:37**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 06:08	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	324742	09/28/16 19:37	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325201	09/30/16 15:14	RJB	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-1 (LF)**

**Lab Sample ID: 400-127303-7**

**Date Collected: 09/15/16 12:05**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 06:30	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	324742	09/28/16 19:42	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325201	09/30/16 15:19	RJB	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-127303-8**

**Date Collected: 09/15/16 10:15**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 06:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	324742	09/28/16 19:59	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325201	09/30/16 15:23	RJB	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-127303-9**

**Date Collected: 09/15/16 12:15**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 07:39	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	324742	09/28/16 20:04	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		324300	09/28/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325201	09/30/16 15:28	RJB	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Client Sample ID: FD-1 (LF)

Lab Sample ID: 400-127303-10

Date Collected: 09/15/16 00:00

Matrix: Water

Date Received: 09/16/16 08:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 08:02	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 14:36	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

## Client Sample ID: FD-2 (LF)

Lab Sample ID: 400-127303-11

Date Collected: 09/15/16 00:00

Matrix: Water

Date Received: 09/16/16 08:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 08:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 14:40	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

## Client Sample ID: GWC-5

Lab Sample ID: 400-127303-12

Date Collected: 09/15/16 12:40

Matrix: Water

Date Received: 09/16/16 08:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 09:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 14:45	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323794	09/22/16 18:31	TET	TAL PEN

## Client Sample ID: FD-3 (LF)

Lab Sample ID: 400-127303-13

Date Collected: 09/15/16 00:00

Matrix: Water

Date Received: 09/16/16 08:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 09:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 14:49	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323795	09/22/16 19:12	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-127303-14**

**Date Collected: 09/15/16 13:12**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 10:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 15:00	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323795	09/22/16 19:12	TET	TAL PEN

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-127303-15**

**Date Collected: 09/15/16 14:26**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 10:41	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	326210	10/10/16 15:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 15:04	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323795	09/22/16 19:12	TET	TAL PEN

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-127303-16**

**Date Collected: 09/15/16 14:40**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 11:04	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	326210	10/10/16 16:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 15:09	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323795	09/22/16 19:12	TET	TAL PEN

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-127303-17**

**Date Collected: 09/15/16 15:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326053	10/08/16 11:27	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324323	09/30/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	325862	10/07/16 15:13	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 09:34	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-6**

**Date Collected: 09/15/16 15:00**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-17**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	325513	10/05/16 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323795	09/22/16 19:12	TET	TAL PEN

**Laboratory References:**

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

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## HPLC/IC

### Analysis Batch: 326053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total/NA	Water	300.0	
400-127303-2	GWA-4	Total/NA	Water	300.0	
400-127303-3	FB-1 (LF)	Total/NA	Water	300.0	
400-127303-4	EB-2 (LF)	Total/NA	Water	300.0	
400-127303-5	FB-2 (LF)	Total/NA	Water	300.0	
400-127303-6	GWC-12	Total/NA	Water	300.0	
400-127303-7	EB-1 (LF)	Total/NA	Water	300.0	
400-127303-8	GWC-34	Total/NA	Water	300.0	
400-127303-9	GWC-35	Total/NA	Water	300.0	
400-127303-10	FD-1 (LF)	Total/NA	Water	300.0	
400-127303-11	FD-2 (LF)	Total/NA	Water	300.0	
400-127303-12	GWC-5	Total/NA	Water	300.0	
400-127303-13	FD-3 (LF)	Total/NA	Water	300.0	
400-127303-14	GWC-13	Total/NA	Water	300.0	
400-127303-15	GWC-14	Total/NA	Water	300.0	
400-127303-16	GWC-7	Total/NA	Water	300.0	
400-127303-17	GWC-6	Total/NA	Water	300.0	
MB 400-326053/38	Method Blank	Total/NA	Water	300.0	
LCS 400-326053/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-326053/40	Lab Control Sample Dup	Total/NA	Water	300.0	
400-127303-8 MS	GWC-34	Total/NA	Water	300.0	
400-127761-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 326210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-15	GWC-14	Total/NA	Water	300.0	
400-127303-16	GWC-7	Total/NA	Water	300.0	
MB 400-326210/4	Method Blank	Total/NA	Water	300.0	
LCS 400-326210/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-326210/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-127303-15 MS	GWC-14	Total/NA	Water	300.0	
400-127303-15 MSD	GWC-14	Total/NA	Water	300.0	

## Metals

### Prep Batch: 324300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-6	GWC-12	Total Recoverable	Water	3005A	
400-127303-6 - RA	GWC-12	Total Recoverable	Water	3005A	
400-127303-7 - RA	EB-1 (LF)	Total Recoverable	Water	3005A	
400-127303-7	EB-1 (LF)	Total Recoverable	Water	3005A	
400-127303-8 - RA	GWC-34	Total Recoverable	Water	3005A	
400-127303-8	GWC-34	Total Recoverable	Water	3005A	
400-127303-9	GWC-35	Total Recoverable	Water	3005A	
400-127303-9 - RA	GWC-35	Total Recoverable	Water	3005A	
MB 400-324300/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-324300/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-127600-M-5-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-127600-M-5-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Metals (Continued)

### Prep Batch: 324311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total Recoverable	Water	3005A	
400-127303-1 - RA	GWA-1	Total Recoverable	Water	3005A	
400-127303-2	GWA-4	Total Recoverable	Water	3005A	
400-127303-2 - RA	GWA-4	Total Recoverable	Water	3005A	
400-127303-3	FB-1 (LF)	Total Recoverable	Water	3005A	
400-127303-3 - RA	FB-1 (LF)	Total Recoverable	Water	3005A	
400-127303-4	EB-2 (LF)	Total Recoverable	Water	3005A	
400-127303-4 - RA	EB-2 (LF)	Total Recoverable	Water	3005A	
400-127303-5	FB-2 (LF)	Total Recoverable	Water	3005A	
400-127303-5 - RA	FB-2 (LF)	Total Recoverable	Water	3005A	
MB 400-324311/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-324311/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-127231-B-3-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-127231-B-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 324323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-10	FD-1 (LF)	Total Recoverable	Water	3005A	
400-127303-11	FD-2 (LF)	Total Recoverable	Water	3005A	
400-127303-12	GWC-5	Total Recoverable	Water	3005A	
400-127303-13	FD-3 (LF)	Total Recoverable	Water	3005A	
400-127303-14	GWC-13	Total Recoverable	Water	3005A	
400-127303-15	GWC-14	Total Recoverable	Water	3005A	
400-127303-16	GWC-7	Total Recoverable	Water	3005A	
400-127303-17	GWC-6	Total Recoverable	Water	3005A	
MB 400-324323/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-324323/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

### Analysis Batch: 324742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-6	GWC-12	Total Recoverable	Water	6020	324300
400-127303-7	EB-1 (LF)	Total Recoverable	Water	6020	324300
400-127303-8	GWC-34	Total Recoverable	Water	6020	324300
400-127303-9	GWC-35	Total Recoverable	Water	6020	324300
MB 400-324300/1-A ^5	Method Blank	Total Recoverable	Water	6020	324300
LCS 400-324300/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	324300
400-127600-M-5-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	324300
400-127600-M-5-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	324300

### Analysis Batch: 325201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-6 - RA	GWC-12	Total Recoverable	Water	6020	324300
400-127303-7 - RA	EB-1 (LF)	Total Recoverable	Water	6020	324300
400-127303-8 - RA	GWC-34	Total Recoverable	Water	6020	324300
400-127303-9 - RA	GWC-35	Total Recoverable	Water	6020	324300
MB 400-324300/1-A ^5	Method Blank	Total Recoverable	Water	6020	324300
LCS 400-324300/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	324300

### Prep Batch: 325233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total/NA	Water	7470A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Metals (Continued)

### Prep Batch: 325233 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-2	GWA-4	Total/NA	Water	7470A	
400-127303-3	FB-1 (LF)	Total/NA	Water	7470A	
400-127303-4	EB-2 (LF)	Total/NA	Water	7470A	
400-127303-5	FB-2 (LF)	Total/NA	Water	7470A	
400-127303-6	GWC-12	Total/NA	Water	7470A	
400-127303-7	EB-1 (LF)	Total/NA	Water	7470A	
400-127303-8	GWC-34	Total/NA	Water	7470A	
400-127303-9	GWC-35	Total/NA	Water	7470A	
400-127303-10	FD-1 (LF)	Total/NA	Water	7470A	
400-127303-11	FD-2 (LF)	Total/NA	Water	7470A	
400-127303-12	GWC-5	Total/NA	Water	7470A	
400-127303-13	FD-3 (LF)	Total/NA	Water	7470A	
400-127303-14	GWC-13	Total/NA	Water	7470A	
400-127303-15	GWC-14	Total/NA	Water	7470A	
400-127303-16	GWC-7	Total/NA	Water	7470A	
400-127303-17	GWC-6	Total/NA	Water	7470A	
MB 400-325233/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-325233/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127303-1 MS	GWA-1	Total/NA	Water	7470A	
400-127303-1 MSD	GWA-1	Total/NA	Water	7470A	

### Analysis Batch: 325417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total Recoverable	Water	6020	324311
400-127303-2	GWA-4	Total Recoverable	Water	6020	324311
400-127303-3	FB-1 (LF)	Total Recoverable	Water	6020	324311
400-127303-4	EB-2 (LF)	Total Recoverable	Water	6020	324311
400-127303-5	FB-2 (LF)	Total Recoverable	Water	6020	324311
MB 400-324311/1-A ^5	Method Blank	Total Recoverable	Water	6020	324311
MB 400-324311/1-A ^5	Method Blank	Total Recoverable	Water	6020	324311
LCS 400-324311/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	324311
400-127231-B-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	324311
400-127231-B-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	324311

### Analysis Batch: 325513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total/NA	Water	7470A	325233
400-127303-2	GWA-4	Total/NA	Water	7470A	325233
400-127303-3	FB-1 (LF)	Total/NA	Water	7470A	325233
400-127303-4	EB-2 (LF)	Total/NA	Water	7470A	325233
400-127303-5	FB-2 (LF)	Total/NA	Water	7470A	325233
400-127303-6	GWC-12	Total/NA	Water	7470A	325233
400-127303-7	EB-1 (LF)	Total/NA	Water	7470A	325233
400-127303-8	GWC-34	Total/NA	Water	7470A	325233
400-127303-9	GWC-35	Total/NA	Water	7470A	325233
400-127303-10	FD-1 (LF)	Total/NA	Water	7470A	325233
400-127303-11	FD-2 (LF)	Total/NA	Water	7470A	325233
400-127303-12	GWC-5	Total/NA	Water	7470A	325233
400-127303-13	FD-3 (LF)	Total/NA	Water	7470A	325233
400-127303-14	GWC-13	Total/NA	Water	7470A	325233
400-127303-15	GWC-14	Total/NA	Water	7470A	325233

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
 SDG: Wansley LF CCR GW

## Metals (Continued)

### Analysis Batch: 325513 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-16	GWC-7	Total/NA	Water	7470A	325233
400-127303-17	GWC-6	Total/NA	Water	7470A	325233
MB 400-325233/14-A	Method Blank	Total/NA	Water	7470A	325233
LCS 400-325233/15-A	Lab Control Sample	Total/NA	Water	7470A	325233
400-127303-1 MS	GWA-1	Total/NA	Water	7470A	325233
400-127303-1 MSD	GWA-1	Total/NA	Water	7470A	325233

### Analysis Batch: 325605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1 - RA	GWA-1	Total Recoverable	Water	6020	324311
400-127303-2 - RA	GWA-4	Total Recoverable	Water	6020	324311
400-127303-3 - RA	FB-1 (LF)	Total Recoverable	Water	6020	324311
400-127303-4 - RA	EB-2 (LF)	Total Recoverable	Water	6020	324311
400-127303-5 - RA	FB-2 (LF)	Total Recoverable	Water	6020	324311

### Analysis Batch: 325862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-10	FD-1 (LF)	Total Recoverable	Water	6020	324323
400-127303-11	FD-2 (LF)	Total Recoverable	Water	6020	324323
400-127303-12	GWC-5	Total Recoverable	Water	6020	324323
400-127303-13	FD-3 (LF)	Total Recoverable	Water	6020	324323
400-127303-14	GWC-13	Total Recoverable	Water	6020	324323
400-127303-15	GWC-14	Total Recoverable	Water	6020	324323
400-127303-16	GWC-7	Total Recoverable	Water	6020	324323
400-127303-17	GWC-6	Total Recoverable	Water	6020	324323
MB 400-324323/1-A ^5	Method Blank	Total Recoverable	Water	6020	324323
LCS 400-324323/2-A	Lab Control Sample	Total Recoverable	Water	6020	324323

## General Chemistry

### Analysis Batch: 323633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-2	GWA-4	Total/NA	Water	SM 2540C	
MB 400-323633/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-323633/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127231-A-14 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 323794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total/NA	Water	SM 2540C	
400-127303-3	FB-1 (LF)	Total/NA	Water	SM 2540C	
400-127303-4	EB-2 (LF)	Total/NA	Water	SM 2540C	
400-127303-5	FB-2 (LF)	Total/NA	Water	SM 2540C	
400-127303-6	GWC-12	Total/NA	Water	SM 2540C	
400-127303-7	EB-1 (LF)	Total/NA	Water	SM 2540C	
400-127303-8	GWC-34	Total/NA	Water	SM 2540C	
400-127303-9	GWC-35	Total/NA	Water	SM 2540C	
400-127303-10	FD-1 (LF)	Total/NA	Water	SM 2540C	
400-127303-11	FD-2 (LF)	Total/NA	Water	SM 2540C	
400-127303-12	GWC-5	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## General Chemistry (Continued)

### Analysis Batch: 323794 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-323794/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-323794/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127303-6 DU	GWC-12	Total/NA	Water	SM 2540C	

### Analysis Batch: 323795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-13	FD-3 (LF)	Total/NA	Water	SM 2540C	
400-127303-14	GWC-13	Total/NA	Water	SM 2540C	
400-127303-15	GWC-14	Total/NA	Water	SM 2540C	
400-127303-16	GWC-7	Total/NA	Water	SM 2540C	
400-127303-17	GWC-6	Total/NA	Water	SM 2540C	
MB 400-323795/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-323795/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127303-14 DU	GWC-13	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-326053/38**  
**Matrix: Water**  
**Analysis Batch: 326053**

**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			10/08/16 00:25	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 00:25	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 00:25	1

**Lab Sample ID: LCS 400-326053/39**  
**Matrix: Water**  
**Analysis Batch: 326053**

**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	9.75		mg/L		97	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-326053/40**  
**Matrix: Water**  
**Analysis Batch: 326053**

**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	9.73		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	1	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	0	15

**Lab Sample ID: 400-127303-8 MS**  
**Matrix: Water**  
**Analysis Batch: 326053**

**Client Sample ID: GWC-34**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.2		10.0	12.0		mg/L		107	80 - 120
Fluoride	0.16	J	10.0	11.3		mg/L		112	80 - 120
Sulfate	1.6		10.0	12.7		mg/L		112	80 - 120

**Lab Sample ID: 400-127761-A-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 326053**

**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	2900		2500	5160		mg/L		91	80 - 120	0	20
Fluoride			2500	2620		mg/L					
Sulfate	470		2500	3060		mg/L		104	80 - 120	0	20

**Lab Sample ID: MB 400-326210/4**  
**Matrix: Water**  
**Analysis Batch: 326210**

**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			10/10/16 14:02	1
Fluoride	<0.082		0.20	0.082	mg/L			10/10/16 14:02	1
Sulfate	<0.70		1.0	0.70	mg/L			10/10/16 14:02	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-326210/5**  
**Matrix: Water**  
**Analysis Batch: 326210**

**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	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-326210/6**  
**Matrix: Water**  
**Analysis Batch: 326210**

**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	9.69		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	9.98		mg/L		100	90 - 110	0	15

**Lab Sample ID: 400-127303-15 MS**  
**Matrix: Water**  
**Analysis Batch: 326210**

**Client Sample ID: GWC-14**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	158		mg/L		98	80 - 120
Fluoride	<0.41		50.0	53.0		mg/L		106	80 - 120
Sulfate	14		50.0	66.3		mg/L		105	80 - 120

**Lab Sample ID: 400-127303-15 MSD**  
**Matrix: Water**  
**Analysis Batch: 326210**

**Client Sample ID: GWC-14**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	158		mg/L		98	80 - 120	0	20
Fluoride	<0.41		50.0	53.1		mg/L		106	80 - 120	0	20
Sulfate	14		50.0	66.1		mg/L		105	80 - 120	0	20

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

**Lab Sample ID: MB 400-324300/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 324742**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/28/16 08:30	09/28/16 17:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	09/28/16 17:34	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/28/16 08:30	09/28/16 17:34	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	09/28/16 17:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/28/16 17:34	5
Calcium	<0.13		0.25	0.13	mg/L		09/28/16 08:30	09/28/16 17:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	09/28/16 17:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	09/28/16 17:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	09/28/16 17:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	09/28/16 17:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	09/28/16 17:34	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
 SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 400-324300/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 324742**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	09/28/16 17:34	5

**Lab Sample ID: MB 400-324300/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325201**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	09/30/16 14:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	09/30/16 14:43	5

**Lab Sample ID: LCS 400-324300/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 324742**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0511		mg/L		102	80 - 120
Arsenic	0.0500	0.0514		mg/L		103	80 - 120
Barium	0.0500	0.0461		mg/L		92	80 - 120
Boron	0.100	0.0970		mg/L		97	80 - 120
Cadmium	0.0500	0.0514		mg/L		103	80 - 120
Calcium	5.00	4.82		mg/L		96	80 - 120
Chromium	0.0500	0.0501		mg/L		100	80 - 120
Cobalt	0.0500	0.0487		mg/L		97	80 - 120
Lead	0.0500	0.0484		mg/L		97	80 - 120
Molybdenum	0.0500	0.0505		mg/L		101	80 - 120
Selenium	0.0500	0.0504		mg/L		101	80 - 120
Thallium	0.0100	0.00992		mg/L		99	80 - 120

**Lab Sample ID: LCS 400-324300/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 325201**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0487		mg/L		97	80 - 120
Lithium	0.0500	0.0534		mg/L		107	80 - 120

**Lab Sample ID: 400-127600-M-5-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 324742**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0568		mg/L		114	75 - 125
Arsenic	0.0019		0.0500	0.0553		mg/L		107	75 - 125
Barium	0.081		0.0500	0.130		mg/L		99	75 - 125
Boron	0.70		0.100	0.825	4	mg/L		128	75 - 125
Cadmium	<0.00034		0.0500	0.0533		mg/L		107	75 - 125
Calcium	86		5.00	91.1	4	mg/L		106	75 - 125
Chromium	<0.0011		0.0500	0.0511		mg/L		102	75 - 125
Cobalt	0.0078		0.0500	0.0582		mg/L		101	75 - 125

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: 400-127600-M-5-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 324742**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	<0.00035		0.0500	0.0487		mg/L		97	75 - 125
Molybdenum	<0.00085		0.0500	0.0533		mg/L		107	75 - 125
Selenium	<0.00024		0.0500	0.0520		mg/L		104	75 - 125
Thallium	<0.000085		0.0100	0.0106		mg/L		106	75 - 125

**Lab Sample ID: 400-127600-M-5-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 324742**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324300**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0541		mg/L		108	75 - 125	5	20
Arsenic	0.0019		0.0500	0.0560		mg/L		108	75 - 125	1	20
Barium	0.081		0.0500	0.130		mg/L		99	75 - 125	0	20
Boron	0.70		0.100	0.825	4	mg/L		128	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0509		mg/L		102	75 - 125	5	20
Calcium	86		5.00	91.9	4	mg/L		122	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0517		mg/L		103	75 - 125	1	20
Cobalt	0.0078		0.0500	0.0568		mg/L		98	75 - 125	2	20
Lead	<0.00035		0.0500	0.0489		mg/L		98	75 - 125	0	20
Molybdenum	<0.00085		0.0500	0.0526		mg/L		105	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0514		mg/L		103	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	2	20

**Lab Sample ID: MB 400-324311/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324311**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/28/16 08:30	10/04/16 12:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/28/16 08:30	10/04/16 12:46	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/28/16 08:30	10/04/16 12:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 12:46	5
Boron	<0.021		0.050	0.021	mg/L		09/28/16 08:30	10/04/16 12:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/28/16 08:30	10/04/16 12:46	5
Calcium	<0.13		0.25	0.13	mg/L		09/28/16 08:30	10/04/16 12:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/28/16 08:30	10/04/16 12:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/28/16 08:30	10/04/16 12:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/28/16 08:30	10/04/16 12:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/28/16 08:30	10/04/16 12:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/28/16 08:30	10/04/16 12:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/28/16 08:30	10/04/16 12:46	5

**Lab Sample ID: MB 400-324311/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324311**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		09/28/16 08:30	10/04/16 18:57	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: LCS 400-324311/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324311**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0526		mg/L		105	80 - 120
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0485		mg/L		97	80 - 120
Beryllium	0.0500	0.0467		mg/L		93	80 - 120
Boron	0.100	0.0942		mg/L		94	80 - 120
Cadmium	0.0500	0.0514		mg/L		103	80 - 120
Calcium	5.00	5.05		mg/L		101	80 - 120
Chromium	0.0500	0.0512		mg/L		102	80 - 120
Cobalt	0.0500	0.0500		mg/L		100	80 - 120
Lead	0.0500	0.0492		mg/L		98	80 - 120
Lithium	0.0500	0.0497		mg/L		99	80 - 120
Molybdenum	0.0500	0.0503		mg/L		101	80 - 120
Selenium	0.0500	0.0500		mg/L		100	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

**Lab Sample ID: 400-127231-B-3-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324311**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0527		mg/L		105	75 - 125
Arsenic	0.0024		0.0500	0.0562		mg/L		108	75 - 125
Barium	0.020		0.0500	0.0682		mg/L		96	75 - 125
Beryllium	<0.00034		0.0500	0.0450		mg/L		90	75 - 125
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125
Cadmium	<0.00034		0.0500	0.0500		mg/L		100	75 - 125
Calcium	37		5.00	39.7	4	mg/L		60	75 - 125
Chromium	<0.0011		0.0500	0.0502		mg/L		100	75 - 125
Cobalt	<0.00040		0.0500	0.0510		mg/L		102	75 - 125
Lead	<0.00035	L	0.0500	0.0463		mg/L		93	75 - 125
Lithium	<0.0032		0.0500	0.0562		mg/L		112	75 - 125
Molybdenum	0.012	J	0.0500	0.0630		mg/L		101	75 - 125
Selenium	<0.00024		0.0500	0.0512		mg/L		102	75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125

**Lab Sample ID: 400-127231-B-3-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324311**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0524		mg/L		105	75 - 125	1	20
Arsenic	0.0024		0.0500	0.0555		mg/L		106	75 - 125	1	20
Barium	0.020		0.0500	0.0687		mg/L		97	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0462		mg/L		92	75 - 125	3	20
Boron	<0.021		0.100	0.109		mg/L		109	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0514		mg/L		103	75 - 125	3	20
Calcium	37		5.00	40.4	4	mg/L		75	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0513		mg/L		103	75 - 125	2	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: 400-127231-B-3-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324311**

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Cobalt	<0.00040		0.0500	0.0509		mg/L		102	75 - 125	0	20	
Lead	<0.00035	L	0.0500	0.0465		mg/L		93	75 - 125	0	20	
Lithium	<0.0032		0.0500	0.0563		mg/L		113	75 - 125	0	20	
Molybdenum	0.012	J	0.0500	0.0633		mg/L		102	75 - 125	1	20	
Selenium	<0.00024		0.0500	0.0505		mg/L		101	75 - 125	1	20	
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	0	20	

**Lab Sample ID: MB 400-324323/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325862**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324323**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		09/30/16 08:30	10/07/16 14:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/30/16 08:30	10/07/16 14:13	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/30/16 08:30	10/07/16 14:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:13	5
Boron	<0.021		0.050	0.021	mg/L		09/30/16 08:30	10/07/16 14:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/30/16 08:30	10/07/16 14:13	5
Calcium	<0.13		0.25	0.13	mg/L		09/30/16 08:30	10/07/16 14:13	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/30/16 08:30	10/07/16 14:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/30/16 08:30	10/07/16 14:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/30/16 08:30	10/07/16 14:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/30/16 08:30	10/07/16 14:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/30/16 08:30	10/07/16 14:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/30/16 08:30	10/07/16 14:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/30/16 08:30	10/07/16 14:13	5

**Lab Sample ID: LCS 400-324323/2-A**  
**Matrix: Water**  
**Analysis Batch: 325862**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324323**

Analyte	Spike	LCS LCS		Unit	D	%Rec	%Rec.	
		Added	Result				Qualifier	Limits
Antimony	0.0500	0.0501		mg/L		100	80 - 120	
Arsenic	0.0500	0.0503		mg/L		101	80 - 120	
Barium	0.0500	0.0480		mg/L		96	80 - 120	
Beryllium	0.0500	0.0453		mg/L		91	80 - 120	
Boron	0.100	0.0941		mg/L		94	80 - 120	
Cadmium	0.0500	0.0506		mg/L		101	80 - 120	
Calcium	5.00	5.01		mg/L		100	80 - 120	
Chromium	0.0500	0.0492		mg/L		98	80 - 120	
Cobalt	0.0500	0.0475		mg/L		95	80 - 120	
Lead	0.0500	0.0523		mg/L		105	80 - 120	
Lithium	0.0500	0.0535		mg/L		107	80 - 120	
Molybdenum	0.0500	0.0499		mg/L		100	80 - 120	
Selenium	0.0500	0.0496		mg/L		99	80 - 120	
Thallium	0.0100	0.00987		mg/L		99	80 - 120	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-325233/14-A**  
**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/04/16 09:31	10/05/16 12:51	1

**Lab Sample ID: LCS 400-325233/15-A**  
**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00107		mg/L		106	80 - 120

**Lab Sample ID: 400-127303-1 MS**  
**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00200		mg/L		99	80 - 120

**Lab Sample ID: 400-127303-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00196		mg/L		97	80 - 120	2	20

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

**Lab Sample ID: MB 400-323633/1**  
**Matrix: Water**  
**Analysis Batch: 323633**

**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			09/21/16 18:24	1

**Lab Sample ID: LCS 400-323633/2**  
**Matrix: Water**  
**Analysis Batch: 323633**

**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	292		mg/L		100	78 - 122

**Lab Sample ID: 400-127231-A-14 DU**  
**Matrix: Water**  
**Analysis Batch: 323633**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	40		40.0		mg/L		0	5

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 400-323794/1**  
**Matrix: Water**  
**Analysis Batch: 323794**

**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			09/22/16 18:31	1

**Lab Sample ID: LCS 400-323794/2**  
**Matrix: Water**  
**Analysis Batch: 323794**

**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: 400-127303-6 DU**  
**Matrix: Water**  
**Analysis Batch: 323794**

**Client Sample ID: GWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		166		mg/L		2	5

**Lab Sample ID: MB 400-323795/1**  
**Matrix: Water**  
**Analysis Batch: 323795**

**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			09/22/16 19:12	1

**Lab Sample ID: LCS 400-323795/2**  
**Matrix: Water**  
**Analysis Batch: 323795**

**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	278		mg/L		95	78 - 122

**Lab Sample ID: 400-127303-14 DU**  
**Matrix: Water**  
**Analysis Batch: 323795**

**Client Sample ID: GWC-13**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	54		54.0		mg/L		0	5

**Chain of Custody Record**

Sampler: Kristen Turinco, Ben Hodges, Chris Gargan, Travis Martinez  
 Carrier Tracking No(s): \_\_\_\_\_

Client Information  
 Client Contact: Joju Abraham  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7339  
 Email: JAbraham@southernco.com  
 Project Name: CCR- Plant Wansley  
 Site: WANSLEY LF CCR GW

Lab P/N: Whitire, Cheyenne R  
 E-Mail: cheyenne.whitire@testamericainc.com  
 Due Date Requested: \_\_\_\_\_  
 TAT Requested (days): \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 WO #: \_\_\_\_\_  
 Project #: 40007041  
 SSOV#: \_\_\_\_\_

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
GWA-1	9/15/16	0955	G	Water			6020-Sb,As,Ba,Bi,Bb,Cr,Cd,Cr,Cp,Pb,Li,Mn,Se,Tl,7470A-Hg	3	
GWA-4	9/14/16	1533		Water			640C-TDS, 300_ORGFM_20D-Chloride, Fluoride, Sulfate	3	
FB-1(LF)	9/15/16	1030		Water				3	
FB-2(LF)	9/15/16	1235		Water				3	
FB-2(LF)	9/15/16	1150		Water				3	
GWC-1a	9/15/16	1137		Water				3	
EB-1(LF)	9/15/16	1205		Water				3	
GWC-34	9/15/16	1015		Water				4	400-127303 COC
GWC-35	9/15/16	1215		Water				3	
FD-1(LF)	9/15/16	-		Water				3	
FD-2(LF)	9/15/16	-		Water				3	

Preservation Codes:  
 A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, Other: \_\_\_\_\_  
 M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify) \_\_\_\_\_

Special Instructions/Note:  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Special Instructions/QC Requirements: MR PADILO SOUTHERNCO.COM SEND REPORT COPY TO CHMCCORKE@SOUTHERNCO.COM

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: 9/15/16 1730 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Custody Seal No.: \_\_\_\_\_ Cooler Temperature(s) °C and Other Ranges: 0.0°C, 0.0°C, 0.0°C, 0.0°C, 2.3°C IR6



Chain of Custody Record

Client Information  
 Client Contact: **GOLDER ASSOCIATES**  
 Phone: **770-496-1893**  
 Lab P/N: **Whitire, Cheyenne R**  
 E-Mail: **cheyenne.whitire@testamericainc.com**

Address: **241 Ralph McGill Blvd SE B10185**  
 City: **Atlanta**  
 State, Zip: **GA, 30308**  
 Phone: **404-506-7239**  
 Email: **JAbraham@southernmco.com**  
 Project Name: **CCR- Plant Wansley**  
 Site: **WANSLEY LE CCRGW**

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #: **40007041**  
 SSO#:

Sample Identification	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)	6020-Sp,As,Ba,Bi,Be,Ca,Cd,Cr,Cu,Pb,Li,Mo,Se,Tl,7470A-Hg	2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate	Analysis Requested	Carrier Tracking No(s)	Job #	Page	COC No
GWC-5	9/15/16	1240	G	Water								2 of 2	
FD-3 (LF)	9/15/16			Water									
GWC-13	9/15/16	1310		Water									
GWC-14	9/15/16	1426		Water									
GWC-7	9/15/16	1440		Water									
GWC-6	9/15/16	1500		Water									

Special Instructions/Note:  
 Total Number of Containers: 3  
 3  
 3  
 3  
 3

Preservation Codes:  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2SO3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 X - EDTA  
 Y - EDA  
 Z - other (specify)

Other:  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 Z - other (specify)

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

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

Empty Kit Relinquished by: **[Signature]** Date: **9/15/16 1730** Company: **TA**

Relinquished by: **[Signature]** Date/Time: **9/16/16 819** Company: **TA**

Relinquished by: **[Signature]** Date/Time: **9/16/16 819** Company: **TA**

Relinquished by: **[Signature]** Date/Time: **9/16/16 819** Company: **TA**

Custody Seal No.: **0.0°C, 0.0°C, 0.0°C, 0.0°C, 0.0°C, 0.0°C, 2.3°C**  
 A Yes A No **IRG**

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-127303-1  
SDG Number: Wansley LF CCR GW

**Login Number: 127303**

**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	660913, 660914, 660915, 660916, 660917, 660918
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	0.0°C , 0.0°C , 0.0°C , 0.0°C , 0.0°C , 2.3°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 <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 Wansley

TestAmerica Job ID: 400-127303-1  
SDG: Wansley LF CCR GW

## 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	10-31-17
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

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: 400-127303-2

TestAmerica Sample Delivery Group: Wansley LF CCR GW

Client Project/Site: CCR Plant Wansley

For:

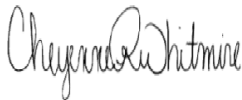
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2016 2:50:25 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Job ID: 400-127303-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-127303-2

#### RAD

Method(s) PrecSep\_0: Radium-228 Prep Batch: 160-271446: Insufficient sample volume was available to perform sample duplicate (DUP) for the following samples: GWA-1 (400-127303-1), GWA-4 (400-127303-2), FB-1 (LF) (400-127303-3), EB-2 (LF) (400-127303-4), FB-2 (LF) (400-127303-5), GWC-12 (400-127303-6), EB-1 (LF) (400-127303-7), GWC-34 (400-127303-8), GWC-35 (400-127303-9), FD-1 (LF) (400-127303-10), FD-2 (LF) (400-127303-11), GWC-5 (400-127303-12), FD-3 (LF) (400-127303-13), GWC-13 (400-127303-14), GWC-14 (400-127303-15), GWC-7 (400-127303-16) and GWC-6 (400-127303-17). A laboratory control sample/laboratory sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch: 160-271442: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-1 (400-127303-1), GWA-4 (400-127303-2), FB-1 (LF) (400-127303-3), EB-2 (LF) (400-127303-4), FB-2 (LF) (400-127303-5), GWC-12 (400-127303-6), EB-1 (LF) (400-127303-7), GWC-34 (400-127303-8), GWC-35 (400-127303-9), FD-1 (LF) (400-127303-10), FD-2 (LF) (400-127303-11), GWC-5 (400-127303-12), FD-3 (LF) (400-127303-13), GWC-13 (400-127303-14), GWC-14 (400-127303-15), GWC-7 (400-127303-16) and GWC-6 (400-127303-17). 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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127303-1	GWA-1	Water	09/15/16 09:55	09/16/16 08:19
400-127303-2	GWA-4	Water	09/14/16 15:33	09/16/16 08:19
400-127303-3	FB-1 (LF)	Water	09/15/16 10:20	09/16/16 08:19
400-127303-4	EB-2 (LF)	Water	09/15/16 12:35	09/16/16 08:19
400-127303-5	FB-2 (LF)	Water	09/15/16 11:50	09/16/16 08:19
400-127303-6	GWC-12	Water	09/15/16 11:37	09/16/16 08:19
400-127303-7	EB-1 (LF)	Water	09/15/16 12:05	09/16/16 08:19
400-127303-8	GWC-34	Water	09/15/16 10:15	09/16/16 08:19
400-127303-9	GWC-35	Water	09/15/16 12:15	09/16/16 08:19
400-127303-10	FD-1 (LF)	Water	09/15/16 00:00	09/16/16 08:19
400-127303-11	FD-2 (LF)	Water	09/15/16 00:00	09/16/16 08:19
400-127303-12	GWC-5	Water	09/15/16 12:40	09/16/16 08:19
400-127303-13	FD-3 (LF)	Water	09/15/16 00:00	09/16/16 08:19
400-127303-14	GWC-13	Water	09/15/16 13:12	09/16/16 08:19
400-127303-15	GWC-14	Water	09/15/16 14:26	09/16/16 08:19
400-127303-16	GWC-7	Water	09/15/16 14:40	09/16/16 08:19
400-127303-17	GWC-6	Water	09/15/16 15:00	09/16/16 08:19

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWA-1**  
**Date Collected: 09/15/16 09:55**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.164		0.0694	0.0709	1.00	0.0849	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.287	U	0.330	0.331	1.00	0.543	pCi/L	09/23/16 16:59	10/07/16 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/23/16 16:59	10/07/16 17:54	1
Y Carrier	84.9		40 - 110					09/23/16 16:59	10/07/16 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.451	U	0.337	0.338	5.00	0.543	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-4**  
**Date Collected: 09/14/16 15:33**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.586		0.107	0.119	1.00	0.0725	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.991		0.325	0.338	1.00	0.436	pCi/L	09/23/16 16:59	10/07/16 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:59	10/07/16 17:54	1
Y Carrier	86.4		40 - 110					09/23/16 16:59	10/07/16 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.58		0.342	0.358	5.00	0.436	pCi/L		10/18/16 01:39	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: FB-1 (LF)**

**Lab Sample ID: 400-127303-3**

**Date Collected: 09/15/16 10:20**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0437	U	0.0453	0.0455	1.00	0.0723	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0126	U	0.253	0.253	1.00	0.456	pCi/L	09/23/16 16:59	10/07/16 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/23/16 16:59	10/07/16 17:54	1
Y Carrier	83.7		40 - 110					09/23/16 16:59	10/07/16 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0311	U	0.257	0.257	5.00	0.456	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: EB-2 (LF)**  
**Date Collected: 09/15/16 12:35**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-4**  
**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	0.0223	U	0.0400	0.0400	1.00	0.0702	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.198	U	0.267	0.267	1.00	0.505	pCi/L	09/23/16 16:59	10/07/16 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/23/16 16:59	10/07/16 17:54	1
Y Carrier	88.2		40 - 110					09/23/16 16:59	10/07/16 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.176	U	0.270	0.270	5.00	0.505	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-2 (LF)**

**Lab Sample ID: 400-127303-5**

**Date Collected: 09/15/16 11:50**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

**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	U	0.0664	0.0669	1.00	0.101	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0950	U	0.288	0.288	1.00	0.498	pCi/L	09/23/16 16:59	10/07/16 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					09/23/16 16:59	10/07/16 17:54	1
Y Carrier	84.5		40 - 110					09/23/16 16:59	10/07/16 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.184	U	0.296	0.296	5.00	0.498	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-12**  
**Date Collected: 09/15/16 11:37**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-6**  
**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	1.55		0.170	0.220	1.00	0.0698	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.88		0.480	0.549	1.00	0.496	pCi/L	09/23/16 16:59	10/07/16 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					09/23/16 16:59	10/07/16 17:55	1
Y Carrier	86.4		40 - 110					09/23/16 16:59	10/07/16 17:55	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	4.43		0.510	0.591	5.00	0.496	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-1 (LF)**

**Lab Sample ID: 400-127303-7**

**Date Collected: 09/15/16 12:05**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0338	U	0.0432	0.0433	1.00	0.0718	pCi/L	09/23/16 16:38	10/17/16 10:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					09/23/16 16:38	10/17/16 10:10	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0102	U	0.304	0.304	1.00	0.537	pCi/L	09/23/16 16:59	10/07/16 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					09/23/16 16:59	10/07/16 17:55	1
Y Carrier	83.4		40 - 110					09/23/16 16:59	10/07/16 17:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0440	U	0.307	0.307	5.00	0.537	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-127303-8**

**Date Collected: 09/15/16 10:15**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0688	U	0.0583	0.0586	1.00	0.0900	pCi/L	09/23/16 16:38	10/17/16 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					09/23/16 16:38	10/17/16 06:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0465	U	0.273	0.273	1.00	0.481	pCi/L	09/23/16 16:59	10/07/16 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					09/23/16 16:59	10/07/16 17:55	1
Y Carrier	87.1		40 - 110					09/23/16 16:59	10/07/16 17:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.115	U	0.279	0.280	5.00	0.481	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-127303-9**

**Date Collected: 09/15/16 12:15**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0311	U	0.0488	0.0489	1.00	0.0835	pCi/L	09/23/16 16:38	10/17/16 06:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					09/23/16 16:38	10/17/16 06:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.168	U	0.269	0.270	1.00	0.453	pCi/L	09/23/16 16:59	10/07/16 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					09/23/16 16:59	10/07/16 17:55	1
Y Carrier	87.9		40 - 110					09/23/16 16:59	10/07/16 17:55	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	0.199	U	0.274	0.274	5.00	0.453	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: FD-1 (LF)**

**Lab Sample ID: 400-127303-10**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0421	U	0.0455	0.0456	1.00	0.0734	pCi/L	09/23/16 16:38	10/17/16 06:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					09/23/16 16:38	10/17/16 06:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00478	U	0.230	0.230	1.00	0.415	pCi/L	09/23/16 16:59	10/07/16 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					09/23/16 16:59	10/07/16 17:55	1
Y Carrier	84.9		40 - 110					09/23/16 16:59	10/07/16 17:55	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	0.0373	U	0.234	0.234	5.00	0.415	pCi/L		10/18/16 01:39	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-2 (LF)**

**Date Collected: 09/15/16 00:00**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-11**

**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	0.0705	U	0.0532	0.0536	1.00	0.0797	pCi/L	09/23/16 16:38	10/17/16 06:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/23/16 16:38	10/17/16 06:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0888	U	0.255	0.255	1.00	0.469	pCi/L	09/23/16 16:59	10/07/16 17:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/23/16 16:59	10/07/16 17:55	1
Y Carrier	86.0		40 - 110					09/23/16 16:59	10/07/16 17:55	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	-0.0183	U	0.261	0.261	5.00	0.469	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-5**  
**Date Collected: 09/15/16 12:40**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-12**  
**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	0.0440	U	0.0419	0.0421	1.00	0.0651	pCi/L	09/23/16 16:38	10/17/16 06:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					09/23/16 16:38	10/17/16 06:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.288	U	0.282	0.283	1.00	0.457	pCi/L	09/23/16 16:59	10/07/16 18:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					09/23/16 16:59	10/07/16 18:18	1
Y Carrier	83.4		40 - 110					09/23/16 16:59	10/07/16 18:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.332	U	0.285	0.286	5.00	0.457	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-3 (LF)**

**Lab Sample ID: 400-127303-13**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0435	U	0.0590	0.0591	1.00	0.0988	pCi/L	09/23/16 16:38	10/17/16 06:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/23/16 16:38	10/17/16 06:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0174	U	0.275	0.275	1.00	0.487	pCi/L	09/23/16 16:59	10/07/16 18:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/23/16 16:59	10/07/16 18:18	1
Y Carrier	89.7		40 - 110					09/23/16 16:59	10/07/16 18:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0608	U	0.282	0.282	5.00	0.487	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-13**

**Date Collected: 09/15/16 13:12**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-14**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0632	U	0.0464	0.0468	1.00	0.0675	pCi/L	09/23/16 16:38	10/17/16 06:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:38	10/17/16 06:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.149	U	0.269	0.269	1.00	0.457	pCi/L	09/23/16 16:59	10/07/16 18:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:59	10/07/16 18:19	1
Y Carrier	83.0		40 - 110					09/23/16 16:59	10/07/16 18:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.212	U	0.273	0.273	5.00	0.457	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-14**

**Date Collected: 09/15/16 14:26**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-15**

**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	0.459		0.0945	0.103	1.00	0.0680	pCi/L	09/23/16 16:38	10/17/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					09/23/16 16:38	10/17/16 06:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.467	U	0.334	0.337	1.00	0.524	pCi/L	09/23/16 16:59	10/07/16 18:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					09/23/16 16:59	10/07/16 18:19	1
Y Carrier	83.4		40 - 110					09/23/16 16:59	10/07/16 18:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.925		0.347	0.352	5.00	0.524	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-7**  
**Date Collected: 09/15/16 14:40**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-16**  
**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	0.158		0.0672	0.0687	1.00	0.0770	pCi/L	09/23/16 16:38	10/17/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:38	10/17/16 06:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.497		0.298	0.301	1.00	0.455	pCi/L	09/23/16 16:59	10/07/16 18:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:59	10/07/16 18:19	1
Y Carrier	87.5		40 - 110					09/23/16 16:59	10/07/16 18:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.655		0.305	0.309	5.00	0.455	pCi/L		10/18/16 01:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-6**  
**Date Collected: 09/15/16 15:00**  
**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-17**  
**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	0.0860		0.0480	0.0487	1.00	0.0611	pCi/L	09/23/16 16:38	10/17/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:38	10/17/16 06:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.182	U	0.246	0.246	1.00	0.410	pCi/L	09/23/16 16:59	10/07/16 18:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/23/16 16:59	10/07/16 18:19	1
Y Carrier	90.8		40 - 110					09/23/16 16:59	10/07/16 18:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.268	U	0.250	0.251	5.00	0.410	pCi/L		10/18/16 01:39	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

## 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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-1**

**Date Collected: 09/15/16 09:55**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWA-4**

**Date Collected: 09/14/16 15:33**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: FB-1 (LF)**

**Date Collected: 09/15/16 10:20**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: EB-2 (LF)**

**Date Collected: 09/15/16 12:35**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-2 (LF)**

**Lab Sample ID: 400-127303-5**

**Date Collected: 09/15/16 11:50**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-127303-6**

**Date Collected: 09/15/16 11:37**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: EB-1 (LF)**

**Lab Sample ID: 400-127303-7**

**Date Collected: 09/15/16 12:05**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 10:10	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-127303-8**

**Date Collected: 09/15/16 10:15**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274767	10/17/16 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-127303-9**

**Date Collected: 09/15/16 12:15**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: FD-1 (LF)**

**Lab Sample ID: 400-127303-10**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: FD-2 (LF)**

**Lab Sample ID: 400-127303-11**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273575	10/07/16 17:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-127303-12**

**Date Collected: 09/15/16 12:40**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273593	10/07/16 18:18	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-3 (LF)**

**Lab Sample ID: 400-127303-13**

**Date Collected: 09/15/16 00:00**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273593	10/07/16 18:18	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-127303-14**

**Date Collected: 09/15/16 13:12**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273593	10/07/16 18:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-127303-15**

**Date Collected: 09/15/16 14:26**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273593	10/07/16 18:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-127303-16**

**Date Collected: 09/15/16 14:40**

**Matrix: Water**

**Date Received: 09/16/16 08:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273593	10/07/16 18:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-6**

**Date Collected: 09/15/16 15:00**

**Date Received: 09/16/16 08:19**

**Lab Sample ID: 400-127303-17**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271442	09/23/16 16:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	274722	10/17/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271446	09/23/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	273593	10/07/16 18:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274837	10/18/16 01:39	ALS	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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

## Rad

### Prep Batch: 271442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total/NA	Water	PrecSep-21	
400-127303-2	GWA-4	Total/NA	Water	PrecSep-21	
400-127303-3	FB-1 (LF)	Total/NA	Water	PrecSep-21	
400-127303-4	EB-2 (LF)	Total/NA	Water	PrecSep-21	
400-127303-5	FB-2 (LF)	Total/NA	Water	PrecSep-21	
400-127303-6	GWC-12	Total/NA	Water	PrecSep-21	
400-127303-7	EB-1 (LF)	Total/NA	Water	PrecSep-21	
400-127303-8	GWC-34	Total/NA	Water	PrecSep-21	
400-127303-9	GWC-35	Total/NA	Water	PrecSep-21	
400-127303-10	FD-1 (LF)	Total/NA	Water	PrecSep-21	
400-127303-11	FD-2 (LF)	Total/NA	Water	PrecSep-21	
400-127303-12	GWC-5	Total/NA	Water	PrecSep-21	
400-127303-13	FD-3 (LF)	Total/NA	Water	PrecSep-21	
400-127303-14	GWC-13	Total/NA	Water	PrecSep-21	
400-127303-15	GWC-14	Total/NA	Water	PrecSep-21	
400-127303-16	GWC-7	Total/NA	Water	PrecSep-21	
400-127303-17	GWC-6	Total/NA	Water	PrecSep-21	
MB 160-271442/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-271442/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-271442/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 271446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127303-1	GWA-1	Total/NA	Water	PrecSep_0	
400-127303-2	GWA-4	Total/NA	Water	PrecSep_0	
400-127303-3	FB-1 (LF)	Total/NA	Water	PrecSep_0	
400-127303-4	EB-2 (LF)	Total/NA	Water	PrecSep_0	
400-127303-5	FB-2 (LF)	Total/NA	Water	PrecSep_0	
400-127303-6	GWC-12	Total/NA	Water	PrecSep_0	
400-127303-7	EB-1 (LF)	Total/NA	Water	PrecSep_0	
400-127303-8	GWC-34	Total/NA	Water	PrecSep_0	
400-127303-9	GWC-35	Total/NA	Water	PrecSep_0	
400-127303-10	FD-1 (LF)	Total/NA	Water	PrecSep_0	
400-127303-11	FD-2 (LF)	Total/NA	Water	PrecSep_0	
400-127303-12	GWC-5	Total/NA	Water	PrecSep_0	
400-127303-13	FD-3 (LF)	Total/NA	Water	PrecSep_0	
400-127303-14	GWC-13	Total/NA	Water	PrecSep_0	
400-127303-15	GWC-14	Total/NA	Water	PrecSep_0	
400-127303-16	GWC-7	Total/NA	Water	PrecSep_0	
400-127303-17	GWC-6	Total/NA	Water	PrecSep_0	
MB 160-271446/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-271446/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-271446/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 160-271442/1-A**  
**Matrix: Water**  
**Analysis Batch: 274767**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271442**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05431	U	0.0482	0.0484	1.00	0.0743	pCi/L	09/23/16 16:38	10/17/16 06:46	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					09/23/16 16:38	10/17/16 06:46	1

**Lab Sample ID: LCS 160-271442/2-A**  
**Matrix: Water**  
**Analysis Batch: 274767**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271442**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.93		1.43	1.00	0.0634	pCi/L	134	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	93.7		40 - 110						

**Lab Sample ID: LCSD 160-271442/3-A**  
**Matrix: Water**  
**Analysis Batch: 274767**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 271442**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.1	15.16		1.45	1.00	0.0727	pCi/L	137	68 - 137	0.08	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	89.5		40 - 110								

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

**Lab Sample ID: MB 160-271446/1-A**  
**Matrix: Water**  
**Analysis Batch: 273575**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271446**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1398	U	0.329	0.329	1.00	0.561	pCi/L	09/23/16 16:59	10/07/16 17:54	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					09/23/16 16:59	10/07/16 17:54	1
Y Carrier	86.4		40 - 110					09/23/16 16:59	10/07/16 17:54	1

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127303-2  
 SDG: Wansley LF CCR GW

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

**Lab Sample ID: LCS 160-271446/2-A**  
**Matrix: Water**  
**Analysis Batch: 273575**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271446**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.5	15.98		1.73	1.00	0.455	pCi/L	111	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.7		40 - 110
Y Carrier	84.5		40 - 110

**Lab Sample ID: LCSD 160-271446/3-A**  
**Matrix: Water**  
**Analysis Batch: 273575**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 271446**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.5	19.36		2.06	1.00	0.490	pCi/L	134	56 - 140	0.90	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	89.5		40 - 110
Y Carrier	82.2		40 - 110



**Chain of Custody Record**

Sampler: Kristen Turinco, Ben Hodges, Chris Gargan, Travis Martinez  
 Carrier Tracking No(s):

Client Information  
 Client Contact: Joju Abraham  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7339  
 Email: JAbraham@southernco.com  
 Project Name: CCR- Plant Wansley  
 Site: WANSLEY LF CCR GW

Lab P/N: Whitire, Cheyenne R  
 E-Mail: cheyenne.whitire@testamericainc.com  
 Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #: 40007041  
 SSOV#:

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=biological, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Preservation Codes	Total Number of Containers	Special Instructions/Note:
GWA-1	9/15/16	0955	G	Water			6020-Sb,As,Ba,Bi,Bb,Ca,Cd,Cr,Cu,Pb,Li,Mn,Se,Tl,7470A-Hg	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)	3	
GWA-4	9/14/16	1533		Water					3	
FB-1(LF)	9/15/16	1030		Water					3	
FB-2(LF)	9/15/16	1235		Water					3	
FB-2(LF)	9/15/16	1150		Water					3	
GWC-1a	9/15/16	1137		Water					3	
EB-1(LF)	9/15/16	1205		Water					3	
GWC-34	9/15/16	1015		Water					4	400-127303 COC
GWC-35	9/15/16	1215		Water					3	
FD-1(LF)	9/15/16	-		Water					3	
FD-2(LF)	9/15/16	-		Water					3	

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: MR PADDLEY SOUTHERNCO.COM  
SEND REPORT COPY TO CHMCCORKE@SOUTHERNCO.COM

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: 9/15/16 1730 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: Δ Yes Δ No Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Ranges: 0.0°C, 0.0°C, 0.0°C, 0.0°C, 2.3°C IR6



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 Wansley  
 Site: WANSLEY LE CCRGW

Sampler: GOLDER ASSOCIATES  
 Lab PW: Whitire, Cheyenne R  
 Phone: 770-496-1893  
 E-Mail: cheyenne.whitire@testamericainc.com

Carrier Tracking No(s): KRISTEN JUVINSKI, BEN HODGES / CHRIS GREGAN / TRAVIS MARTINEZ  
 COC No: 2 of 2  
 Job #:

Sample Identification	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)	6020-Sp,As,Ba,Bi,Be,Ca,Cd,Cr,Cu,Pb,Li,Mo,Se,Tl,7470A-Hg	2540C-TDS, 300_ORGM, 28D-Chloride, Fluoride, Sulfate	Analysis Requested	Preservation Codes	Special Instructions/Note:
GWC-5	9/15/16	1240	G	Water	X	X	1	1		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 Y - EDA Z - other (specify)	
FD-3 (LF)	9/15/16			Water	X	X	1	1			
GWC-13	9/15/16	1310		Water	X	X	2	1			
GWC-14	9/15/16	1426		Water	X	X	1	1			
GWC-7	9/15/16	1440		Water	X	X	1	1			
GWC-6	9/15/16	1500		Water	X	X	1	1			

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

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

Empty Kit Relinquished by: [Signature]  
 Date: 9/15/16 1730  
 Company: [Signature]

Relinquished by: [Signature]  
 Date/Time: 9/15/16 819  
 Company: TA

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

Custody Seal No.: [Signature]  
 Custody Seals Intact: A Yes A No  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.0°C, 0.0°C, 0.0°C, 0.0°C, 2.3°C  
 IRG

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-127303-2  
SDG Number: Wansley LF CCR GW

**Login Number: 127303**

**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	660913, 660914, 660915, 660916, 660917, 660918
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	0.0°C , 0.0°C , 0.0°C , 0.0°C , 0.0°C , 2.3°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 <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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

## 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	10-31-17
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	10-31-17
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 Wansley

TestAmerica Job ID: 400-127303-2  
SDG: Wansley LF CCR GW

## 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	06-30-17
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

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: 400-127374-1

TestAmerica Sample Delivery Group: Wansley LF CCR GW

Client Project/Site: CCR Plant Wansley

For:

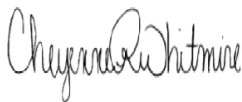
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/19/2016 3:50:59 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

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[www.testamericainc.com](http://www.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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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWA-2

## Lab Sample ID: 400-127374-1

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	0.87	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0011	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-16

## Lab Sample ID: 400-127374-2

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
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0023	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	78		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FD-04 (LF)

## Lab Sample ID: 400-127374-3

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
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	J	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: GWC-32

## Lab Sample ID: 400-127374-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0018	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00088	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.013		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Beryllium - RA	0.0015	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		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 Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWC-33

## Lab Sample ID: 400-127374-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0061		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0038	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00021	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Beryllium - RA	0.0010	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-24

## Lab Sample ID: 400-127374-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Antimony	0.0020	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0053		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-127374-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.3		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	29		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0048		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.011		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-28

## Lab Sample ID: 400-127374-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	0.99	J	1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0012	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.00092	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.5		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 Wansley

TestAmerica Job ID: 400-127374-1  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWA-28 (Continued)**

**Lab Sample ID: 400-127374-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0082		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.023		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0080	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Beryllium - RA	0.00039	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		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 Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

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 Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127374-1	GWA-2	Water	09/16/16 11:00	09/19/16 09:17
400-127374-2	GWC-16	Water	09/16/16 08:50	09/19/16 09:17
400-127374-3	FD-04 (LF)	Water	09/16/16 00:00	09/19/16 09:17
400-127374-4	GWC-32	Water	09/16/16 09:20	09/19/16 09:17
400-127374-5	GWC-33	Water	09/16/16 08:35	09/19/16 09:17
400-127374-6	GWC-24	Water	09/16/16 10:10	09/19/16 09:17
400-127374-7	GWC-10	Water	09/16/16 10:40	09/19/16 09:17
400-127374-8	GWA-28	Water	09/15/16 15:15	09/19/16 09:17

- 1
- 2
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- 11
- 12
- 13

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-2**  
**Date Collected: 09/16/16 11:00**  
**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.1</b>		1.0	0.89	mg/L			10/08/16 19:49	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 19:49	1
<b>Sulfate</b>	<b>0.87</b>	<b>J</b>	1.0	0.70	mg/L			10/08/16 19:49	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		10/03/16 14:01	10/04/16 19:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 19:28	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 19:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 19:28	5
<b>Calcium</b>	<b>3.6</b>		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 19:28	5
<b>Chromium</b>	<b>0.0019</b>	<b>J</b>	0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 19:28	5
<b>Cobalt</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 19:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 19:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 19:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 19:28	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 19:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 19:28	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:18	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 15:18	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		10/04/16 09:45	10/07/16 09:12	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>40</b>		5.0	3.4	mg/L			09/23/16 19:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-16**

**Date Collected: 09/16/16 08:50**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			10/08/16 20:12	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 20:12	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 20:12	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		10/03/16 14:01	10/04/16 19:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 19:50	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 19:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 19:50	5
<b>Calcium</b>	<b>6.7</b>		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 19:50	5
<b>Chromium</b>	<b>0.0023</b>	<b>J</b>	0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 19:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 19:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 19:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 19:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 19:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 19:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 19:50	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:31	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 15:31	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		10/04/16 09:45	10/07/16 09:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>78</b>		5.0	3.4	mg/L			09/23/16 19:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FD-04 (LF)**

**Lab Sample ID: 400-127374-3**

**Date Collected: 09/16/16 00:00**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			10/08/16 20:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 20:35	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 20:35	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		10/03/16 14:01	10/04/16 19:54	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 19:54	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 19:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 19:54	5
<b>Calcium</b>	<b>6.7</b>		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 19:54	5
<b>Chromium</b>	<b>0.0018</b>	<b>J</b>	0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 19:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 19:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 19:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 19:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 19:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 19:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 19:54	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:36	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 15:36	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		10/04/16 09:45	10/07/16 09:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>82</b>		5.0	3.4	mg/L			09/23/16 19:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-32**  
**Date Collected: 09/16/16 09:20**  
**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			10/08/16 20:58	1
Fluoride	3.5		0.20	0.082	mg/L			10/08/16 20:58	1
Sulfate	12		1.0	0.70	mg/L			10/08/16 20:58	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		10/03/16 14:01	10/04/16 19:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 19:59	5
Barium	0.0018	J	0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 19:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 19:59	5
Calcium	8.7		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 19:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 19:59	5
Cobalt	0.00088	J	0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 19:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 19:59	5
Lithium	0.013		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 19:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 19:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 19:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 19:59	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0015	J	0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:40	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 15:40	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		10/04/16 09:45	10/07/16 09:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			09/23/16 19:25	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-33**

**Date Collected: 09/16/16 08:35**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-5**

**Matrix: Water**

**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		10/03/16 14:01	10/04/16 20:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 20:03	5
<b>Barium</b>	<b>0.0061</b>		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 20:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 20:03	5
<b>Calcium</b>	<b>11</b>		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 20:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 20:03	5
<b>Cobalt</b>	<b>0.011</b>		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 20:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 20:03	5
<b>Lithium</b>	<b>0.0038</b>	<b>J</b>	0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 20:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 20:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 20:03	5
<b>Thallium</b>	<b>0.00021</b>	<b>J</b>	0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 20:03	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Beryllium</b>	<b>0.0010</b>	<b>J</b>	0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:45	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 15:45	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		10/04/16 09:45	10/07/16 09:17	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-24**

**Date Collected: 09/16/16 10:10**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-6**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.6</b>		1.0	0.89	mg/L			10/08/16 21:20	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 21:20	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 21:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0020</b>	<b>J</b>	0.0025	0.0010	mg/L		10/03/16 14:01	10/04/16 20:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 20:07	5
<b>Barium</b>	<b>0.018</b>		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 20:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 20:07	5
<b>Calcium</b>	<b>1.3</b>		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 20:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 20:07	5
<b>Cobalt</b>	<b>0.0053</b>		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 20:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 20:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 20:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 20:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 20:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 20:07	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:49	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 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		10/04/16 09:45	10/07/16 09:18	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>22</b>		5.0	3.4	mg/L			09/23/16 19:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-10**  
**Date Collected: 09/16/16 10:40**  
**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-7**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		1.0	0.89	mg/L			10/08/16 21:43	1
Fluoride	1.3		0.20	0.082	mg/L			10/08/16 21:43	1
Sulfate	29		1.0	0.70	mg/L			10/08/16 21:43	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		10/03/16 14:01	10/04/16 20:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 20:25	5
Barium	0.017		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 20:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 20:25	5
Calcium	27		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 20:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 20:25	5
Cobalt	0.0048		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 20:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 20:25	5
Lithium	0.011		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 20:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 20:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 20:25	5
Thallium	<0.00085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 20:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 16:07	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 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		10/04/16 09:45	10/07/16 09:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			09/23/16 19:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-28**

**Date Collected: 09/15/16 15:15**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-8**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			10/08/16 22:06	1
Fluoride	1.6		0.20	0.082	mg/L			10/08/16 22:06	1
Sulfate	0.99	J	1.0	0.70	mg/L			10/08/16 22:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0012	J	0.0025	0.0010	mg/L		10/03/16 14:01	10/04/16 20:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 20:29	5
Barium	0.00092	J	0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 20:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 20:29	5
Calcium	2.5		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 20:29	5
Chromium	0.0082		0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 20:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 20:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 20:29	5
Lithium	0.023		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 20:29	5
Molybdenum	0.0080	J	0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 20:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 20:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 20:29	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00039	J	0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 16:12	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 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		10/04/16 09:45	10/07/16 09:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			09/22/16 19:12	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## Qualifiers

### HPLC/IC

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

### Metals

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-2**

**Date Collected: 09/16/16 11:00**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 19:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 19:28	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 15:18	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323955	09/23/16 19:25	TET	TAL PEN

**Client Sample ID: GWC-16**

**Date Collected: 09/16/16 08:50**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 20:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 19:50	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 15:31	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323955	09/23/16 19:25	TET	TAL PEN

**Client Sample ID: FD-04 (LF)**

**Date Collected: 09/16/16 00:00**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 20:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 19:54	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 15:36	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323955	09/23/16 19:25	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-127374-4**

**Date Collected: 09/16/16 09:20**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 20:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 19:59	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 15:40	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323955	09/23/16 19:25	TET	TAL PEN

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-127374-5**

**Date Collected: 09/16/16 08:35**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 20:03	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 15:45	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:17	JAP	TAL PEN

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-127374-6**

**Date Collected: 09/16/16 10:10**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 21:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 20:07	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 15:49	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323955	09/23/16 19:25	TET	TAL PEN

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-127374-7**

**Date Collected: 09/16/16 10:40**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 21:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 20:25	AJR	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 16:07	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323955	09/23/16 19:25	TET	TAL PEN

**Client Sample ID: GWA-28**

**Lab Sample ID: 400-127374-8**

**Date Collected: 09/15/16 15:15**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	326101	10/08/16 22:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325417	10/04/16 20:29	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		324868	10/03/16 14:01	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	325605	10/05/16 16:12	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 09:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323795	09/22/16 19:12	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 Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## HPLC/IC

### Analysis Batch: 326101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total/NA	Water	300.0	
400-127374-2	GWC-16	Total/NA	Water	300.0	
400-127374-3	FD-04 (LF)	Total/NA	Water	300.0	
400-127374-4	GWC-32	Total/NA	Water	300.0	
400-127374-6	GWC-24	Total/NA	Water	300.0	
400-127374-7	GWC-10	Total/NA	Water	300.0	
400-127374-8	GWA-28	Total/NA	Water	300.0	
MB 400-326101/4	Method Blank	Total/NA	Water	300.0	
LCS 400-326101/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-326101/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-127231-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-127914-B-2 MS	Matrix Spike	Total/NA	Water	300.0	

## Metals

### Prep Batch: 324868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1 - RA	GWA-2	Total Recoverable	Water	3005A	
400-127374-1	GWA-2	Total Recoverable	Water	3005A	
400-127374-2 - RA	GWC-16	Total Recoverable	Water	3005A	
400-127374-2	GWC-16	Total Recoverable	Water	3005A	
400-127374-3	FD-04 (LF)	Total Recoverable	Water	3005A	
400-127374-3 - RA	FD-04 (LF)	Total Recoverable	Water	3005A	
400-127374-4 - RA	GWC-32	Total Recoverable	Water	3005A	
400-127374-4	GWC-32	Total Recoverable	Water	3005A	
400-127374-5	GWC-33	Total Recoverable	Water	3005A	
400-127374-5 - RA	GWC-33	Total Recoverable	Water	3005A	
400-127374-6	GWC-24	Total Recoverable	Water	3005A	
400-127374-6 - RA	GWC-24	Total Recoverable	Water	3005A	
400-127374-7 - RA	GWC-10	Total Recoverable	Water	3005A	
400-127374-7	GWC-10	Total Recoverable	Water	3005A	
400-127374-8 - RA	GWA-28	Total Recoverable	Water	3005A	
400-127374-8	GWA-28	Total Recoverable	Water	3005A	
MB 400-324868/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
MB 400-324868/1-A ^5 - RA	Method Blank	Total Recoverable	Water	3005A	
LCS 400-324868/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-324868/2-A ^1 - RA	Lab Control Sample	Total Recoverable	Water	3005A	
400-127374-1 MS - RA	GWA-2	Total Recoverable	Water	3005A	
400-127374-1 MS	GWA-2	Total Recoverable	Water	3005A	
400-127374-1 MSD	GWA-2	Total Recoverable	Water	3005A	
400-127374-1 MSD - RA	GWA-2	Total Recoverable	Water	3005A	

### Prep Batch: 325215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total/NA	Water	7470A	
400-127374-2	GWC-16	Total/NA	Water	7470A	
400-127374-3	FD-04 (LF)	Total/NA	Water	7470A	
400-127374-4	GWC-32	Total/NA	Water	7470A	
400-127374-5	GWC-33	Total/NA	Water	7470A	
400-127374-6	GWC-24	Total/NA	Water	7470A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## Metals (Continued)

### Prep Batch: 325215 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-7	GWC-10	Total/NA	Water	7470A	
400-127374-8	GWA-28	Total/NA	Water	7470A	
MB 400-325215/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-325215/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127746-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-127746-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 325417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total Recoverable	Water	6020	324868
400-127374-2	GWC-16	Total Recoverable	Water	6020	324868
400-127374-3	FD-04 (LF)	Total Recoverable	Water	6020	324868
400-127374-4	GWC-32	Total Recoverable	Water	6020	324868
400-127374-5	GWC-33	Total Recoverable	Water	6020	324868
400-127374-6	GWC-24	Total Recoverable	Water	6020	324868
400-127374-7	GWC-10	Total Recoverable	Water	6020	324868
400-127374-8	GWA-28	Total Recoverable	Water	6020	324868
MB 400-324868/1-A ^5	Method Blank	Total Recoverable	Water	6020	324868
LCS 400-324868/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	324868
400-127374-1 MS	GWA-2	Total Recoverable	Water	6020	324868
400-127374-1 MSD	GWA-2	Total Recoverable	Water	6020	324868

### Analysis Batch: 325605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1 - RA	GWA-2	Total Recoverable	Water	6020	324868
400-127374-2 - RA	GWC-16	Total Recoverable	Water	6020	324868
400-127374-3 - RA	FD-04 (LF)	Total Recoverable	Water	6020	324868
400-127374-4 - RA	GWC-32	Total Recoverable	Water	6020	324868
400-127374-5 - RA	GWC-33	Total Recoverable	Water	6020	324868
400-127374-6 - RA	GWC-24	Total Recoverable	Water	6020	324868
400-127374-7 - RA	GWC-10	Total Recoverable	Water	6020	324868
400-127374-8 - RA	GWA-28	Total Recoverable	Water	6020	324868
MB 400-324868/1-A ^5 - RA	Method Blank	Total Recoverable	Water	6020	324868
LCS 400-324868/2-A ^1 - RA	Lab Control Sample	Total Recoverable	Water	6020	324868
400-127374-1 MS - RA	GWA-2	Total Recoverable	Water	6020	324868
400-127374-1 MSD - RA	GWA-2	Total Recoverable	Water	6020	324868

### Analysis Batch: 325819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total/NA	Water	7470A	325215
400-127374-2	GWC-16	Total/NA	Water	7470A	325215
400-127374-3	FD-04 (LF)	Total/NA	Water	7470A	325215
400-127374-4	GWC-32	Total/NA	Water	7470A	325215
400-127374-5	GWC-33	Total/NA	Water	7470A	325215
400-127374-6	GWC-24	Total/NA	Water	7470A	325215
400-127374-7	GWC-10	Total/NA	Water	7470A	325215
400-127374-8	GWA-28	Total/NA	Water	7470A	325215
MB 400-325215/14-A	Method Blank	Total/NA	Water	7470A	325215
LCS 400-325215/15-A	Lab Control Sample	Total/NA	Water	7470A	325215
400-127746-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	325215
400-127746-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	325215

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## General Chemistry

### Analysis Batch: 323795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-8	GWA-28	Total/NA	Water	SM 2540C	
MB 400-323795/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-323795/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127374-8 DU	GWA-28	Total/NA	Water	SM 2540C	

### Analysis Batch: 323955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total/NA	Water	SM 2540C	
400-127374-2	GWC-16	Total/NA	Water	SM 2540C	
400-127374-3	FD-04 (LF)	Total/NA	Water	SM 2540C	
400-127374-4	GWC-32	Total/NA	Water	SM 2540C	
400-127374-6	GWC-24	Total/NA	Water	SM 2540C	
400-127374-7	GWC-10	Total/NA	Water	SM 2540C	
MB 400-323955/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-323955/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127374-2 DU	GWC-16	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-326101/4**  
**Matrix: Water**  
**Analysis Batch: 326101**

**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			10/08/16 16:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/16 16:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/16 16:24	1

**Lab Sample ID: LCS 400-326101/5**  
**Matrix: Water**  
**Analysis Batch: 326101**

**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	9.80		mg/L		98	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-326101/6**  
**Matrix: Water**  
**Analysis Batch: 326101**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.94		mg/L		99	90 - 110	1	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	2	15

**Lab Sample ID: 400-127231-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 326101**

**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	260		200	453		mg/L		95	80 - 120	0	20
Fluoride	<1.6		200	211		mg/L		106	80 - 120	0	20
Sulfate	500		200	694		mg/L		99	80 - 120	1	20

**Lab Sample ID: 400-127914-B-2 MS**  
**Matrix: Water**  
**Analysis Batch: 326101**

**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	6.9		10.0	16.9		mg/L		100	80 - 120
Fluoride	0.11	J	10.0	10.8		mg/L		106	80 - 120
Sulfate	2.5		10.0	13.0		mg/L		105	80 - 120

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

**Lab Sample ID: MB 400-324868/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/03/16 14:01	10/04/16 19:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 14:01	10/04/16 19:06	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 400-324868/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		10/03/16 14:01	10/04/16 19:06	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/04/16 19:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/04/16 19:06	5
Calcium	<0.13		0.25	0.13	mg/L		10/03/16 14:01	10/04/16 19:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 14:01	10/04/16 19:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 14:01	10/04/16 19:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 14:01	10/04/16 19:06	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 14:01	10/04/16 19:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 14:01	10/04/16 19:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 14:01	10/04/16 19:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 14:01	10/04/16 19:06	5

**Lab Sample ID: LCS 400-324868/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0499		mg/L		100	80 - 120
Arsenic	0.0500	0.0517		mg/L		103	80 - 120
Barium	0.0500	0.0450		mg/L		90	80 - 120
Boron	0.100	0.0903		mg/L		90	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Calcium	5.00	4.99		mg/L		100	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120
Cobalt	0.0500	0.0491		mg/L		98	80 - 120
Lead	0.0500	0.0481		mg/L		96	80 - 120
Lithium	0.0500	0.0503		mg/L		101	80 - 120
Molybdenum	0.0500	0.0499		mg/L		100	80 - 120
Selenium	0.0500	0.0499		mg/L		100	80 - 120
Thallium	0.0100	0.00981		mg/L		98	80 - 120

**Lab Sample ID: 400-127374-1 MS**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: GWA-2**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0517		mg/L		103	75 - 125
Arsenic	<0.00046		0.0500	0.0528		mg/L		106	75 - 125
Barium	0.017		0.0500	0.0633		mg/L		92	75 - 125
Cadmium	<0.00034		0.0500	0.0496		mg/L		99	75 - 125
Calcium	3.6		5.00	9.05		mg/L		108	75 - 125
Chromium	0.0019	J	0.0500	0.0545		mg/L		105	75 - 125
Cobalt	0.0011	J	0.0500	0.0526		mg/L		103	75 - 125
Lead	<0.00035		0.0500	0.0476		mg/L		95	75 - 125
Lithium	<0.0032		0.0500	0.0528		mg/L		106	75 - 125
Molybdenum	<0.00085		0.0500	0.0502		mg/L		100	75 - 125
Selenium	<0.00024		0.0500	0.0518		mg/L		104	75 - 125
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: 400-127374-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 325417**

**Client Sample ID: GWA-2**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result					Limits		
Antimony	<0.0010		0.0500	0.0520		mg/L		104	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0527		mg/L		105	75 - 125	0	20
Barium	0.017		0.0500	0.0653		mg/L		96	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0503		mg/L		101	75 - 125	1	20
Calcium	3.6		5.00	8.87		mg/L		104	75 - 125	2	20
Chromium	0.0019	J	0.0500	0.0544		mg/L		105	75 - 125	0	20
Cobalt	0.0011	J	0.0500	0.0523		mg/L		103	75 - 125	1	20
Lead	<0.00035		0.0500	0.0471		mg/L		94	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0544		mg/L		109	75 - 125	3	20
Molybdenum	<0.00085		0.0500	0.0506		mg/L		101	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0522		mg/L		104	75 - 125	1	20
Thallium	<0.000085		0.0100	0.00999		mg/L		100	75 - 125	0	20

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

**Lab Sample ID: MB 400-324868/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 325605**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	MB	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result								
Beryllium - RA	<0.00034		0.0025	0.00034	mg/L		10/03/16 14:01	10/05/16 15:09	5
Boron - RA	<0.021		0.050	0.021	mg/L		10/03/16 14:01	10/05/16 15:09	5

**Lab Sample ID: LCS 400-324868/2-A ^1**  
**Matrix: Water**  
**Analysis Batch: 325605**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	Spike Added	LCS	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
		Result					Limits	
Beryllium - RA	0.0500	0.0460		mg/L		92	80 - 120	
Boron - RA	0.100	0.0939		mg/L		94	80 - 120	

**Lab Sample ID: 400-127374-1 MS**  
**Matrix: Water**  
**Analysis Batch: 325605**

**Client Sample ID: GWA-2**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Result			Result					Limits	
Beryllium - RA	<0.00034		0.0500	0.0461		mg/L		92	75 - 125	
Boron - RA	<0.021		0.100	0.0975		mg/L		97	75 - 125	

**Lab Sample ID: 400-127374-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 325605**

**Client Sample ID: GWA-2**  
**Prep Type: Total Recoverable**  
**Prep Batch: 324868**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result					Limits		
Beryllium - RA	<0.00034		0.0500	0.0457		mg/L		91	75 - 125	1	20
Boron - RA	<0.021		0.100	0.0940		mg/L		94	75 - 125	4	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-325215/14-A**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/04/16 08:55	10/07/16 08:44	1

**Lab Sample ID: LCS 400-325215/15-A**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000912		mg/L		91	80 - 120

**Lab Sample ID: 400-127746-C-1-C MS**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00176		mg/L		87	80 - 120

**Lab Sample ID: 400-127746-C-1-D MSD**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00178		mg/L		89	80 - 120	1	20

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

**Lab Sample ID: MB 400-323795/1**  
**Matrix: Water**  
**Analysis Batch: 323795**

**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			09/22/16 19:12	1

**Lab Sample ID: LCS 400-323795/2**  
**Matrix: Water**  
**Analysis Batch: 323795**

**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	278		mg/L		95	78 - 122

**Lab Sample ID: 400-127374-8 DU**  
**Matrix: Water**  
**Analysis Batch: 323795**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	64		62.0		mg/L		3	5

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-1  
 SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 400-323955/1**  
**Matrix: Water**  
**Analysis Batch: 323955**

**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			09/23/16 19:25	1

**Lab Sample ID: LCS 400-323955/2**  
**Matrix: Water**  
**Analysis Batch: 323955**

**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: 400-127374-2 DU**  
**Matrix: Water**  
**Analysis Batch: 323955**

**Client Sample ID: GWC-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	78		78.0		mg/L		0	5





TestAmerica Pensacola  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica  
 THE LEADER IN ENVIRONMENTAL TESTING

Krisen Jurinko, Chris Gagan, Travis Martinez

Client Information  
 Client Contact: Joju Abraham  
 Lab PVI: Whitmire, Cheyenne R  
 Phone: 770-496-1893  
 E-Mail: cheyenne.whitmire@testamericainc.com

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 Wansley  
 Site: Wansley LF CCR GW

Carrier Tracking No(s):  
 COC No: 1091  
 Page: 1 of 1  
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=biological)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)		
GWA-2	9/16/16	1100	G	Water	8316, Ra226, 9320, Ra228, Ra226Ra228, GFC	5640C-TDS, 300_ORGM_28D-Chloride, Fluoride, Sulfate	3	
GWC-16	9/16/16	0850		Water			3	
FD-04 (LF)	9/16/16			Water			3	
GWC-32	9/16/16	0920		Water			3	
GWC-33	9/16/16	0835		Water			3	
GWC-24	9/16/16	1010		Water			3	
GWC-10	9/16/16	1040		Water			3	
GWA-29	9/16/16	1515	G	Water			3	
	9/15/16			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: 9/16/16 Time: 1400 Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 9/16/16 0917 Company: AA-PEN

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  
 Custody Seal No.: 410, 370, 366

Special 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/OC Requirements: MR PAPILLI@SOUTHERNCO.COM  
 Send report copy to CHMICORR@SOUTHERNCO.COM

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-127374-1  
SDG Number: Wansley LF CCR GW

**Login Number: 127374**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	4.1°C, 3.7°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 Wansley

TestAmerica Job ID: 400-127374-1  
SDG: Wansley LF CCR GW

## 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	10-31-17
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

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: 400-127374-2

TestAmerica Sample Delivery Group: Wansley LF CCR GW

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/23/2016 6:40:01 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

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### LINKS

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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 Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

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 Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127374-1	GWA-2	Water	09/16/16 11:00	09/19/16 09:17
400-127374-2	GWC-16	Water	09/16/16 08:50	09/19/16 09:17
400-127374-3	FD-04 (LF)	Water	09/16/16 00:00	09/19/16 09:17
400-127374-8	GWA-28	Water	09/15/16 15:15	09/19/16 09:17

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-2**  
**Date Collected: 09/16/16 11:00**  
**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.196		0.0767	0.0787	1.00	0.0919	pCi/L	09/24/16 16:12	10/18/16 14:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					09/24/16 16:12	10/18/16 14:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.544		0.272	0.276	1.00	0.395	pCi/L	09/24/16 16:51	10/10/16 14:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					09/24/16 16:51	10/10/16 14:35	1
Y Carrier	87.1		40 - 110					09/24/16 16:51	10/10/16 14:35	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	0.739		0.282	0.287	5.00	0.395	pCi/L		10/20/16 17:39	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-16**

**Date Collected: 09/16/16 08:50**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-2**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0843	U	0.0688	0.0692	1.00	0.107	pCi/L	09/24/16 16:12	10/18/16 14:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					09/24/16 16:12	10/18/16 14:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.341	U	0.250	0.252	1.00	0.388	pCi/L	09/24/16 16:51	10/10/16 14:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					09/24/16 16:51	10/10/16 14:35	1
Y Carrier	82.6		40 - 110					09/24/16 16:51	10/10/16 14:35	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
<b>Combined Radium 226 + 228</b>	<b>0.426</b>		0.259	0.261	5.00	0.388	pCi/L		10/20/16 17:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: FD-04 (LF)**

**Lab Sample ID: 400-127374-3**

**Date Collected: 09/16/16 00:00**

**Matrix: Water**

**Date Received: 09/19/16 09:17**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0984		0.0569	0.0576	1.00	0.0749	pCi/L	09/26/16 12:03	10/18/16 10:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/26/16 12:03	10/18/16 10:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.183	U	0.269	0.270	1.00	0.452	pCi/L	09/26/16 14:51	10/11/16 18:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/26/16 14:51	10/11/16 18:33	1
Y Carrier	78.5		40 - 110					09/26/16 14:51	10/11/16 18:33	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	0.281	U	0.275	0.276	5.00	0.452	pCi/L		10/20/16 17:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-28**  
**Date Collected: 09/15/16 15:15**  
**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-8**  
**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	0.100	U	0.0722	0.0728	1.00	0.109	pCi/L	09/24/16 16:12	10/18/16 14:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					09/24/16 16:12	10/18/16 14:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.186	U	0.258	0.259	1.00	0.432	pCi/L	09/24/16 16:51	10/10/16 14:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					09/24/16 16:51	10/10/16 14:35	1
Y Carrier	84.5		40 - 110					09/24/16 16:51	10/10/16 14:35	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	0.286	U	0.268	0.269	5.00	0.432	pCi/L		10/20/16 17:39	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

## 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 Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWA-2**

**Date Collected: 09/16/16 11:00**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271452	09/24/16 16:12	MCJ	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 14:49	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271454	09/24/16 16:51	MCJ	TAL SL
Total/NA	Analysis	9320		1	273803	10/10/16 14:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275426	10/20/16 17:39	RTM	TAL SL

**Client Sample ID: GWC-16**

**Date Collected: 09/16/16 08:50**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271452	09/24/16 16:12	MCJ	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 14:49	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271454	09/24/16 16:51	MCJ	TAL SL
Total/NA	Analysis	9320		1	273803	10/10/16 14:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275426	10/20/16 17:39	RTM	TAL SL

**Client Sample ID: FD-04 (LF)**

**Date Collected: 09/16/16 00:00**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:29	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275426	10/20/16 17:39	RTM	TAL SL

**Client Sample ID: GWA-28**

**Date Collected: 09/15/16 15:15**

**Date Received: 09/19/16 09:17**

**Lab Sample ID: 400-127374-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271452	09/24/16 16:12	MCJ	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 14:49	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271454	09/24/16 16:51	MCJ	TAL SL
Total/NA	Analysis	9320		1	273803	10/10/16 14:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275426	10/20/16 17:39	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 Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

## Rad

### Prep Batch: 271452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total/NA	Water	PrecSep-21	
400-127374-2	GWC-16	Total/NA	Water	PrecSep-21	
400-127374-8	GWA-28	Total/NA	Water	PrecSep-21	
MB 160-271452/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-271452/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
490-111867-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
490-111867-B-4-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	

### Prep Batch: 271454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-1	GWA-2	Total/NA	Water	PrecSep_0	
400-127374-2	GWC-16	Total/NA	Water	PrecSep_0	
400-127374-8	GWA-28	Total/NA	Water	PrecSep_0	
MB 160-271454/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-271454/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
490-111867-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
490-111867-B-4-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	

### Prep Batch: 271751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-3	FD-04 (LF)	Total/NA	Water	PrecSep-21	
MB 160-271751/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-271751/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-127441-B-11-A DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 271780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127374-3	FD-04 (LF)	Total/NA	Water	PrecSep_0	
MB 160-271780/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-271780/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-127441-B-11-B DU	Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 160-271452/1-A**  
**Matrix: Water**  
**Analysis Batch: 274965**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271452**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0000	U	0.0365	0.0365	1.00	0.0726	pCi/L	09/24/16 16:12	10/18/16 10:53	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	92.6		40 - 110	09/24/16 16:12	10/18/16 10:53	1				

**Lab Sample ID: LCS 160-271452/2-A**  
**Matrix: Water**  
**Analysis Batch: 275152**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271452**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	11.87		1.16	1.00	0.0884	pCi/L	107	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	86.3		40 - 110	09/24/16 16:12	10/18/16 10:53	1			

**Lab Sample ID: 490-111867-A-4-B MSD**  
**Matrix: Water**  
**Analysis Batch: 274963**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 271452**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
						Uncert. (2σ+/-)							
Radium-226	0.211		11.1	12.83		1.26	1.00	0.0891	pCi/L	114	75 - 138	0.36	1
Carrier	MSD MSD		Limits			Prepared	Analyzed	Dil Fac					
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed								
Ba Carrier	86.9		40 - 110	09/24/16 16:12	10/18/16 10:53	1							

**Lab Sample ID: 490-111867-B-4-A MS**  
**Matrix: Water**  
**Analysis Batch: 274965**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 271452**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
						Uncert. (2σ+/-)					
Radium-226	0.211		11.1	11.95		1.17	1.00	0.0756	pCi/L	106	75 - 138
Carrier	MS MS		Limits			Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed						
Ba Carrier	80.3		40 - 110	09/24/16 16:12	10/18/16 10:53	1					

**Lab Sample ID: MB 160-271751/1-A**  
**Matrix: Water**  
**Analysis Batch: 274963**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271751**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04343	U	0.0719	0.0720	1.00	0.124	pCi/L	09/26/16 12:03	10/18/16 10:29	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 160-271751/1-A**  
**Matrix: Water**  
**Analysis Batch: 274963**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271751**

Carrier	MB %Yield	MB Qualifier	Limits
Ba Carrier	81.8		40 - 110

Prepared	Analyzed	Dil Fac
09/26/16 12:03	10/18/16 10:29	1

**Lab Sample ID: LCS 160-271751/2-A**  
**Matrix: Water**  
**Analysis Batch: 274963**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271751**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	14.8	19.14		1.86	1.00	0.111	pCi/L	129	68 - 137

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

**Lab Sample ID: 400-127441-B-11-A DU**  
**Matrix: Water**  
**Analysis Batch: 274963**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 271751**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.197		0.1357		0.0892	1.00	0.128	pCi/L	0.34	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	91.5		40 - 110

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

**Lab Sample ID: MB 160-271454/1-A**  
**Matrix: Water**  
**Analysis Batch: 273710**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271454**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1334	U	0.344	0.344	1.00	0.588	pCi/L	09/24/16 16:51	10/10/16 14:21	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110	09/24/16 16:51	10/10/16 14:21	1
Y Carrier	72.9		40 - 110	09/24/16 16:51	10/10/16 14:21	1

**Lab Sample ID: LCS 160-271454/2-A**  
**Matrix: Water**  
**Analysis Batch: 273710**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271454**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.4	15.55		1.69	1.00	0.458	pCi/L	108	56 - 140

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: LCS 160-271454/2-A**  
**Matrix: Water**  
**Analysis Batch: 273710**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271454**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	86.3		40 - 110
Y Carrier	88.2		40 - 110

**Lab Sample ID: 490-111867-A-4-D MSD**  
**Matrix: Water**  
**Analysis Batch: 273710**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 271454**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.268	U	14.5	15.91		1.73	1.00	0.458	pCi/L	110	45 - 150	0.09	1

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	86.9		40 - 110
Y Carrier	86.7		40 - 110

**Lab Sample ID: 490-111867-B-4-B MS**  
**Matrix: Water**  
**Analysis Batch: 273710**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 271454**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.268	U	14.4	16.22		1.78	1.00	0.492	pCi/L	112	45 - 150

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	80.3		40 - 110
Y Carrier	86.4		40 - 110

**Lab Sample ID: MB 160-271780/1-A**  
**Matrix: Water**  
**Analysis Batch: 274024**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 271780**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6609	U	0.481	0.485	1.00	0.755	pCi/L	09/26/16 14:51	10/11/16 18:33	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits			
Ba Carrier	81.8		40 - 110	09/26/16 14:51	10/11/16 18:33	1
Y Carrier	75.5		40 - 110	09/26/16 14:51	10/11/16 18:33	1

**Lab Sample ID: LCS 160-271780/2-A**  
**Matrix: Water**  
**Analysis Batch: 274024**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271780**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.2	22.39		2.47	1.00	0.635	pCi/L	116	56 - 140

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
 SDG: Wansley LF CCR GW

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

**Lab Sample ID: LCS 160-271780/2-A**  
**Matrix: Water**  
**Analysis Batch: 274024**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 271780**

	LCS	LCS	
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>
Ba Carrier	84.6		40 - 110
Y Carrier	78.5		40 - 110

**Lab Sample ID: 400-127441-B-11-B DU**  
**Matrix: Water**  
**Analysis Batch: 274024**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 271780**

<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qual</b>	<b>DU Result</b>	<b>DU Qual</b>	<b>Total Uncert. (2σ+/-)</b>	<b>RL</b>	<b>MDC</b>	<b>Unit</b>	<b>RER</b>	<b>RER</b>
										<b>Limit</b>
Radium-228	0.436	U	0.2880	U	0.375	1.00	0.622	pCi/L	0.20	1

	DU	DU	
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>
Ba Carrier	91.5		40 - 110
Y Carrier	81.9		40 - 110


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TestAmerica Pensacola  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

Krisen Jurinko, Chris Gagan, Travis Martinez

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 THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b> Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE B10185 City: Atlanta State: GA, Zip: 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: CCR- Plant Wansley Site: Wansley LF CCR GW		Lab PVI: Whitire, Cheyenne R E-Mail: cheyenne.whitire@testamericainc.com Carrier Tracking No(s): 1091	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007041 SSOW#:		Analysis Requested  400-127374 COC	
Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No) Perform MS/SD (Yes or No) 8316_Ra226_9320_Ra228_Ra226Ra228_GFPc 6020-Sp,As,Ba,Bi,Be,Ca,Cd,Cr,Cp,Pb,Li,Mn,Se,Tl,7470A-Hg 2540C-TDS, 300_ORGM_28D-Chloride, Fluoride, Sulfate	
Sample Identification GWA-2 GWC-16 FD-04 (LF) GWC-32 GWC-33 GWC-24 GWC-10 GWA-28 GWA-29		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 Sample Time Sample Type Matrix		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"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: Total Number of Containers	
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 Archive For _____ Months	
Empty Kit Relinquished by:		Special Instructions/QC Requirements: send report copy to CHMICORRES@southernco.com Method of Shipment:	
Relinquished by: [Signature] Date/Time: 9/16/16 1400 Company:		Relinquished by: [Signature] Date/Time: 9/16/16 0917 Company: AA-PEN	
Relinquished by: [Signature] Date/Time: 9/16/16 1515 Company:		Relinquished by: [Signature] Date/Time: 9/16/16 1040 Company:	
Relinquished by: [Signature] Date/Time: 9/16/16 1010 Company:		Relinquished by: [Signature] Date/Time: 9/16/16 0835 Company:	
Relinquished by: [Signature] Date/Time: 9/16/16 0920 Company:		Relinquished by: [Signature] Date/Time: 9/16/16 0850 Company:	
Relinquished by: [Signature] Date/Time: 9/16/16 1100 Company:		Relinquished by: [Signature] Date/Time: 9/16/16 1100 Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 4.1°C, 3.7°C, 3.6°C	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-127374-2  
SDG Number: Wansley LF CCR GW

**Login Number: 127374**

**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	4.1°C, 3.7°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 <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 Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

## 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	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	12-31-16
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	10-31-17
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.

TestAmerica Pensacola

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127374-2  
SDG: Wansley LF CCR GW

## 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	06-30-17
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

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: 400-127497-1

TestAmerica Sample Delivery Group: Wansley LF CCR GW

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/25/2016 2:58:13 PM

Cheyenne Whitmire, Project Manager II

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### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

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**Job ID: 400-127497-1**

---

**Laboratory: TestAmerica Pensacola**

## Narrative

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### Job Narrative 400-127497-1

#### HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-9 (400-127497-6). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The method blank for analytical batch 327005 contained Fluoride 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.

#### Metals

Method(s) 6020: The initial calibration verification (ICV) result for batch 328072 was above the upper control limit for Selenium. Sample results were non-detects above the reporting limit, and have been reported as qualified data.



# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWC-27

## Lab Sample ID: 400-127497-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.64	B	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0080		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0013	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0024	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0038	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00016	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-17

## Lab Sample ID: 400-127497-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-8

## Lab Sample ID: 400-127497-3

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	31		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	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.059		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.011		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0025	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	220		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-127497-4

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
Barium	0.028		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	96		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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Client Sample ID: FB-3 (LF)

## Lab Sample ID: 400-127497-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-9

## Lab Sample ID: 400-127497-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	73		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.18		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.38		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	25		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.055		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0068		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00026	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	340		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-26

## Lab Sample ID: 400-127497-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-127497-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.039		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-11

## Lab Sample ID: 400-127497-9

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
Fluoride	0.15	J B	0.20	0.082	mg/L	1		300.0	Total/NA
Arsenic	0.0021		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.33		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWC-11 (Continued)

## Lab Sample ID: 400-127497-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0061		0.0025	0.00040	mg/L	5		6020	Total
Selenium	0.00084	J ^	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-25

## Lab Sample ID: 400-127497-10

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	11		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0071		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-127497-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.092	J B	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	0.0012	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Barium	0.0070		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0011	J	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: GWC-23

## Lab Sample ID: 400-127497-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0056		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-127497-13

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
Sulfate	0.85	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0070		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.9		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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Client Sample ID: GWC-15 (Continued)

## Lab Sample ID: 400-127497-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0050		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-20

## Lab Sample ID: 400-127497-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.83	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00064	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-21

## Lab Sample ID: 400-127497-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000072	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-127497-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		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	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0011	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-4 (LF)

## Lab Sample ID: 400-127497-17

No Detections.

## Client Sample ID: EB-3 (LF)

## Lab Sample ID: 400-127497-18

No Detections.

## Client Sample ID: EB-4 (LF)

## Lab Sample ID: 400-127497-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	10		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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127497-1	GWC-27	Water	09/19/16 12:40	09/21/16 09:44
400-127497-2	GWC-17	Water	09/19/16 10:25	09/21/16 09:44
400-127497-3	GWC-8	Water	09/19/16 12:00	09/21/16 09:44
400-127497-4	GWC-18	Water	09/19/16 13:07	09/21/16 09:44
400-127497-5	FB-3 (LF)	Water	09/19/16 13:15	09/21/16 09:44
400-127497-6	GWC-9	Water	09/19/16 13:25	09/21/16 09:44
400-127497-7	GWC-26	Water	09/19/16 14:10	09/21/16 09:44
400-127497-8	GWC-19	Water	09/19/16 14:20	09/21/16 09:44
400-127497-9	GWC-11	Water	09/19/16 14:50	09/21/16 09:44
400-127497-10	GWC-25	Water	09/19/16 15:30	09/21/16 09:44
400-127497-11	GWC-30	Water	09/20/16 10:45	09/21/16 09:44
400-127497-12	GWC-23	Water	09/20/16 09:35	09/21/16 09:44
400-127497-13	GWC-15	Water	09/20/16 09:15	09/21/16 09:44
400-127497-14	GWC-20	Water	09/20/16 09:10	09/21/16 09:44
400-127497-15	GWC-21	Water	09/20/16 10:27	09/21/16 09:44
400-127497-16	GWC-22	Water	09/20/16 10:50	09/21/16 09:44
400-127497-17	FB-4 (LF)	Water	09/20/16 09:10	09/21/16 09:44
400-127497-18	EB-3 (LF)	Water	09/20/16 09:05	09/21/16 09:44
400-127497-19	EB-4 (LF)	Water	09/20/16 11:40	09/21/16 09:44

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-27**  
**Date Collected: 09/19/16 12:40**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0		1.0	0.89	mg/L			10/14/16 21:16	1
Fluoride	0.64	B	0.20	0.082	mg/L			10/14/16 21:16	1
Sulfate	1.6		1.0	0.70	mg/L			10/14/16 21:16	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		10/03/16 13:18	10/06/16 14:24	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 14:24	5
Barium	0.0080		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 14:24	5
Beryllium	0.0013	J	0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:24	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 14:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:24	5
Calcium	1.2		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 14:24	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 14:24	5
Cobalt	0.0024	J	0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 14:24	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 14:24	5
Lithium	0.0038	J	0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 14:24	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 14:24	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 14:24	5
Thallium	0.00016	J	0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 14:24	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		10/04/16 10:19	10/07/16 09:22	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	52		5.0	3.4	mg/L			09/24/16 17:56	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-17**  
**Date Collected: 09/19/16 10:25**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			10/14/16 22:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/16 22:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/16 22:24	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		10/03/16 13:18	10/06/16 14:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 14:29	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 14:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:29	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 14:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:29	5
<b>Calcium</b>	<b>7.8</b>		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 14:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 14:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 14:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 14:29	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 14:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 14:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 14:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 14:29	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		10/04/16 10:19	10/07/16 09:49	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-8**  
**Date Collected: 09/19/16 12:00**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.4</b>		1.0	0.89	mg/L			10/14/16 23:33	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/16 23:33	1
<b>Sulfate</b>	<b>31</b>		1.0	0.70	mg/L			10/14/16 23:33	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		10/03/16 13:18	10/06/16 14:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 14:33	5
<b>Barium</b>	<b>0.043</b>		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 14:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:33	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 14:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:33	5
<b>Calcium</b>	<b>30</b>		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 14:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 14:33	5
<b>Cobalt</b>	<b>0.059</b>		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 14:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 14:33	5
<b>Lithium</b>	<b>0.011</b>		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 14:33	5
<b>Molybdenum</b>	<b>0.0025 J</b>		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 14:33	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 14:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 14:33	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		10/04/16 10:19	10/07/16 09:50	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>220</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-18**  
**Date Collected: 09/19/16 13:07**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.6</b>		1.0	0.89	mg/L			10/14/16 23:56	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/16 23:56	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/16 23:56	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		10/03/16 13:18	10/06/16 14:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 14:38	5
<b>Barium</b>	<b>0.028</b>		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 14:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:38	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 14:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:38	5
<b>Calcium</b>	<b>5.4</b>		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 14:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 14:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 14:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 14:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 14:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 14:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 14:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 14:38	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		10/04/16 10:19	10/07/16 09:51	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>96</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-3 (LF)**

**Date Collected: 09/19/16 13:15**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-5**

**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			10/15/16 00:18	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 00:18	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 00:18	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		10/03/16 13:18	10/06/16 14:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 14:56	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 14:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:56	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 14:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 14:56	5
Calcium	<0.13		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 14:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 14:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 14:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 14:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 14:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 14:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 14:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 14:56	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		10/04/16 10:19	10/07/16 09:53	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-9**  
**Date Collected: 09/19/16 13:25**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-6**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>73</b>		5.0	4.5	mg/L			10/17/16 16:19	5
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 00:41	1
<b>Sulfate</b>	<b>22</b>		1.0	0.70	mg/L			10/15/16 00:41	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		10/03/16 13:18	10/06/16 15:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 15:00	5
<b>Barium</b>	<b>0.18</b>		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 15:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 15:00	5
<b>Boron</b>	<b>0.38</b>		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 15:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 15:00	5
<b>Calcium</b>	<b>25</b>		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 15:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 15:00	5
<b>Cobalt</b>	<b>0.055</b>		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 15:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 15:00	5
<b>Lithium</b>	<b>0.0068</b>		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 15:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 15:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 15:00	5
<b>Thallium</b>	<b>0.00026</b>	<b>J</b>	0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 15:00	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		10/04/16 10:20	10/07/16 09:54	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>340</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-26**

**Date Collected: 09/19/16 14:10**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-7**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.9</b>		1.0	0.89	mg/L			10/15/16 01:04	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 01:04	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 01:04	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		10/03/16 13:18	10/06/16 15:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 15:05	5
<b>Barium</b>	<b>0.029</b>		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 15:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 15:05	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 15:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 15:05	5
<b>Calcium</b>	<b>1.5</b>		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 15:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 15:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 15:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 15:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 15:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 15:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 15:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 15:05	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		10/04/16 10:23	10/05/16 13:34	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>48</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-19**  
**Date Collected: 09/19/16 14:20**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-8**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.4</b>		1.0	0.89	mg/L			10/15/16 01:27	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 01:27	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 01:27	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		10/03/16 13:18	10/06/16 15:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/03/16 13:18	10/06/16 15:09	5
<b>Barium</b>	<b>0.039</b>		0.0025	0.00049	mg/L		10/03/16 13:18	10/06/16 15:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 15:09	5
Boron	<0.021		0.050	0.021	mg/L		10/03/16 13:18	10/06/16 15:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/03/16 13:18	10/06/16 15:09	5
<b>Calcium</b>	<b>4.3</b>		0.25	0.13	mg/L		10/03/16 13:18	10/06/16 15:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/03/16 13:18	10/06/16 15:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/03/16 13:18	10/06/16 15:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/03/16 13:18	10/06/16 15:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/03/16 13:18	10/06/16 15:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/03/16 13:18	10/06/16 15:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/03/16 13:18	10/06/16 15:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/03/16 13:18	10/06/16 15:09	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		10/04/16 10:23	10/05/16 13:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>74</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-11**  
**Date Collected: 09/19/16 14:50**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-9**  
**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			10/15/16 01:50	1
Fluoride	0.15	J B	0.20	0.082	mg/L			10/15/16 01:50	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 01:50	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		10/10/16 13:18	10/24/16 14:04	5
Arsenic	0.0021		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 14:04	5
Barium	0.33		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 14:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 14:04	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 14:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 14:04	5
Calcium	18		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 14:04	5
Chromium	0.0022	J	0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 14:04	5
Cobalt	0.0061		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 14:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 14:04	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 14:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 14:04	5
Selenium	0.00084	J ^	0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 14:04	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 14:04	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		10/06/16 14:31	10/10/16 13:46	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			09/24/16 17:56	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-25**  
**Date Collected: 09/19/16 15:30**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-10**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.1</b>		1.0	0.89	mg/L			10/15/16 02:13	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 02:13	1
<b>Sulfate</b>	<b>11</b>		1.0	0.70	mg/L			10/15/16 02:13	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		10/10/16 13:18	10/24/16 14:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 14:09	5
<b>Barium</b>	<b>0.041</b>		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 14:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 14:09	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 14:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 14:09	5
<b>Calcium</b>	<b>8.4</b>		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 14:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 14:09	5
<b>Cobalt</b>	<b>0.0071</b>		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 14:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 14:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 14:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 14:09	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 14:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 14:09	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		10/06/16 14:31	10/10/16 13:47	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			09/24/16 17:56	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-30**

**Date Collected: 09/20/16 10:45**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-11**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			10/15/16 02:35	1
Fluoride	0.092	J B	0.20	0.082	mg/L			10/15/16 02:35	1
Sulfate	1.3		1.0	0.70	mg/L			10/15/16 02:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0012	J	0.0025	0.0010	mg/L		10/10/16 13:18	10/24/16 14:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 14:31	5
Barium	0.0070		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 14:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 14:31	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 14:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 14:31	5
Calcium	3.2		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 14:31	5
Chromium	0.0011	J	0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 14:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 14:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 14:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 14:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 14:31	5
Selenium	<0.00024	^	0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 14:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 14:31	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		10/06/16 14:31	10/10/16 13:48	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	52		5.0	3.4	mg/L			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-23**

**Date Collected: 09/20/16 09:35**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-12**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			10/15/16 04:07	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 04:07	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 04:07	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		10/10/16 13:18	10/24/16 15:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:23	5
<b>Barium</b>	<b>0.0056</b>		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:23	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:23	5
<b>Calcium</b>	<b>3.3</b>		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:23	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:23	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 15:23	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		10/06/16 14:31	10/10/16 13:50	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>42</b>		5.0	3.4	mg/L			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-15**

**Date Collected: 09/20/16 09:15**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-13**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.7</b>		1.0	0.89	mg/L			10/15/16 04:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 04:29	1
<b>Sulfate</b>	<b>0.85</b>	<b>J</b>	1.0	0.70	mg/L			10/15/16 04:29	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		10/10/16 13:18	10/24/16 15:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:28	5
<b>Barium</b>	<b>0.0070</b>		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:28	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:28	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:28	5
<b>Calcium</b>	<b>6.9</b>		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:28	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:28	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:28	5
<b>Lithium</b>	<b>0.0050</b>		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:28	5
Selenium	<0.00024	<sup>^</sup>	0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 15:28	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		10/06/16 14:31	10/10/16 13:51	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>72</b>		5.0	3.4	mg/L			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-20**  
**Date Collected: 09/20/16 09:10**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-14**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.0</b>		1.0	0.89	mg/L			10/15/16 04:52	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 04:52	1
<b>Sulfate</b>	<b>0.83</b>	<b>J</b>	1.0	0.70	mg/L			10/15/16 04:52	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		10/10/16 13:18	10/24/16 15:32	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:32	5
<b>Barium</b>	<b>0.035</b>		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:32	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:32	5
<b>Calcium</b>	<b>8.9</b>		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:32	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:32	5
<b>Cobalt</b>	<b>0.00064</b>	<b>J</b>	0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:32	5
Selenium	<0.00024	<sup>^</sup>	0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 15:32	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		10/06/16 14:31	10/10/16 13:52	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>84</b>		5.0	3.4	mg/L			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-21**  
**Date Collected: 09/20/16 10:27**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-15**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.1</b>		1.0	0.89	mg/L			10/15/16 05:15	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 05:15	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 05:15	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		10/10/16 13:18	10/24/16 15:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:37	5
<b>Barium</b>	<b>0.014</b>		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:37	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:37	5
<b>Calcium</b>	<b>3.6</b>		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:37	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:37	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:37	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:37	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 15:37	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000072</b>	<b>J</b>	0.00020	0.000070	mg/L		10/06/16 14:31	10/10/16 13:53	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>56</b>		5.0	3.4	mg/L			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-22**  
**Date Collected: 09/20/16 10:50**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-16**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			10/15/16 05:38	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 05:38	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 05:38	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		10/10/16 13:18	10/24/16 15:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:41	5
<b>Barium</b>	<b>0.026</b>		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:41	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:41	5
<b>Calcium</b>	<b>11</b>		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:41	5
<b>Chromium</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:41	5
Selenium	<0.00024	<sup>^</sup>	0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 15:41	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00013</b>	<b>J</b>	0.00020	0.000070	mg/L		10/06/16 14:31	10/10/16 14:07	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-4 (LF)**

**Lab Sample ID: 400-127497-17**

**Date Collected: 09/20/16 09:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

### 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			10/15/16 06:01	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 06:01	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 06:01	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		10/10/16 13:18	10/24/16 15:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:46	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:46	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:46	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:46	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:46	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 15:46	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		10/06/16 14:31	10/10/16 14:08	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			09/26/16 17:03	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-127497-18**

**Date Collected: 09/20/16 09:05**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

### 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			10/15/16 06:23	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 06:23	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 06:23	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		10/10/16 13:18	10/24/16 15:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:50	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:50	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:50	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:50	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 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		10/06/16 14:31	10/10/16 14:09	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			09/26/16 17:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-4 (LF)**

**Lab Sample ID: 400-127497-19**

**Date Collected: 09/20/16 11:40**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

### 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			10/15/16 06:46	1
Fluoride	<0.082		0.20	0.082	mg/L			10/15/16 06:46	1
Sulfate	<0.70		1.0	0.70	mg/L			10/15/16 06:46	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		10/10/16 13:18	10/24/16 15:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 15:55	5
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 15:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:55	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 15:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 15:55	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 15:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 15:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 15:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 15:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 15:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 15:55	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 15:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 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		10/07/16 12:26	10/12/16 13:54	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10		5.0	3.4	mg/L			09/26/16 17:03	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery 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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

## 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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-27**  
**Date Collected: 09/19/16 12:40**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/14/16 21:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 14:24	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 10:19	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-17**  
**Date Collected: 09/19/16 10:25**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/14/16 22:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 14:29	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 10:19	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-8**  
**Date Collected: 09/19/16 12:00**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/14/16 23:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 14:33	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 10:19	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-18**  
**Date Collected: 09/19/16 13:07**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/14/16 23:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 14:38	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 10:19	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-3 (LF)**

**Lab Sample ID: 400-127497-5**

**Date Collected: 09/19/16 13:15**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 00:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 14:56	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 10:19	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-127497-6**

**Date Collected: 09/19/16 13:25**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 00:41	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	327182	10/17/16 16:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 15:00	AJR	TAL PEN
Total/NA	Prep	7470A			325215	10/04/16 10:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325819	10/07/16 09:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-127497-7**

**Date Collected: 09/19/16 14:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 01:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 15:05	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 10:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-127497-8**

**Date Collected: 09/19/16 14:20**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 01:27	TAJ	TAL PEN
Total Recoverable	Prep	3005A			324869	10/03/16 13:18	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	325757	10/06/16 15:09	AJR	TAL PEN
Total/NA	Prep	7470A			325233	10/04/16 10:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	325513	10/05/16 13:35	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-127497-8**

**Date Collected: 09/19/16 14:20**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-127497-9**

**Date Collected: 09/19/16 14:50**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 01:50	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 14:04	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-127497-10**

**Date Collected: 09/19/16 15:30**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 02:13	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 14:09	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	323986	09/24/16 17:56	TET	TAL PEN

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-127497-11**

**Date Collected: 09/20/16 10:45**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 02:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 14:31	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-127497-12**

**Date Collected: 09/20/16 09:35**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 04:07	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:23	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-127497-13**

**Date Collected: 09/20/16 09:15**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 04:29	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:28	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-127497-14**

**Date Collected: 09/20/16 09:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 04:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:32	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-127497-15**

**Date Collected: 09/20/16 10:27**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 05:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:37	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 13:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-127497-16**

**Date Collected: 09/20/16 10:50**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 05:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:41	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 14:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

**Client Sample ID: FB-4 (LF)**

**Lab Sample ID: 400-127497-17**

**Date Collected: 09/20/16 09:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 06:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:46	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 14:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-127497-18**

**Date Collected: 09/20/16 09:05**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 06:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:50	AJR	TAL PEN
Total/NA	Prep	7470A			325685	10/06/16 14:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326133	10/10/16 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

**Client Sample ID: EB-4 (LF)**

**Lab Sample ID: 400-127497-19**

**Date Collected: 09/20/16 11:40**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	327005	10/15/16 06:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			326118	10/10/16 13:18	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	328072	10/24/16 15:55	AJR	TAL PEN
Total/NA	Prep	7470A			325849	10/07/16 12:26	JAP	TAL PEN
Total/NA	Analysis	7470A		1	326503	10/12/16 13:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	324162	09/26/16 17:03	TET	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Laboratory References:**

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

- 1
- 2
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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## HPLC/IC

### Analysis Batch: 327005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total/NA	Water	300.0	
400-127497-2	GWC-17	Total/NA	Water	300.0	
400-127497-3	GWC-8	Total/NA	Water	300.0	
400-127497-4	GWC-18	Total/NA	Water	300.0	
400-127497-5	FB-3 (LF)	Total/NA	Water	300.0	
400-127497-6	GWC-9	Total/NA	Water	300.0	
400-127497-7	GWC-26	Total/NA	Water	300.0	
400-127497-8	GWC-19	Total/NA	Water	300.0	
400-127497-9	GWC-11	Total/NA	Water	300.0	
400-127497-10	GWC-25	Total/NA	Water	300.0	
400-127497-11	GWC-30	Total/NA	Water	300.0	
400-127497-12	GWC-23	Total/NA	Water	300.0	
400-127497-13	GWC-15	Total/NA	Water	300.0	
400-127497-14	GWC-20	Total/NA	Water	300.0	
400-127497-15	GWC-21	Total/NA	Water	300.0	
400-127497-16	GWC-22	Total/NA	Water	300.0	
400-127497-17	FB-4 (LF)	Total/NA	Water	300.0	
400-127497-18	EB-3 (LF)	Total/NA	Water	300.0	
400-127497-19	EB-4 (LF)	Total/NA	Water	300.0	
MB 400-327005/3	Method Blank	Total/NA	Water	300.0	
LCS 400-327005/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327005/5	Lab Control Sample Dup	Total/NA	Water	300.0	
400-127497-1 MS	GWC-27	Total/NA	Water	300.0	
400-127497-1 MSD	GWC-27	Total/NA	Water	300.0	
400-127497-11 MS	GWC-30	Total/NA	Water	300.0	

### Analysis Batch: 327182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-6	GWC-9	Total/NA	Water	300.0	
MB 400-327182/4	Method Blank	Total/NA	Water	300.0	
LCS 400-327182/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-327182/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-128556-E-5 MS	Matrix Spike	Total/NA	Water	300.0	
400-128556-E-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 324869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total Recoverable	Water	3005A	
400-127497-2	GWC-17	Total Recoverable	Water	3005A	
400-127497-3	GWC-8	Total Recoverable	Water	3005A	
400-127497-4	GWC-18	Total Recoverable	Water	3005A	
400-127497-5	FB-3 (LF)	Total Recoverable	Water	3005A	
400-127497-6	GWC-9	Total Recoverable	Water	3005A	
400-127497-7	GWC-26	Total Recoverable	Water	3005A	
400-127497-8	GWC-19	Total Recoverable	Water	3005A	

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Metals (Continued)

### Prep Batch: 325215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total/NA	Water	7470A	
400-127497-2	GWC-17	Total/NA	Water	7470A	
400-127497-3	GWC-8	Total/NA	Water	7470A	
400-127497-4	GWC-18	Total/NA	Water	7470A	
400-127497-5	FB-3 (LF)	Total/NA	Water	7470A	
400-127497-6	GWC-9	Total/NA	Water	7470A	
MB 400-325215/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-325215/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127746-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-127746-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 325233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-7	GWC-26	Total/NA	Water	7470A	
400-127497-8	GWC-19	Total/NA	Water	7470A	
MB 400-325233/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-325233/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127303-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-127303-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 325513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-7	GWC-26	Total/NA	Water	7470A	325233
400-127497-8	GWC-19	Total/NA	Water	7470A	325233
MB 400-325233/14-A	Method Blank	Total/NA	Water	7470A	325233
LCS 400-325233/15-A	Lab Control Sample	Total/NA	Water	7470A	325233
400-127303-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	325233
400-127303-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	325233

### Prep Batch: 325685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-9	GWC-11	Total/NA	Water	7470A	
400-127497-10	GWC-25	Total/NA	Water	7470A	
400-127497-11	GWC-30	Total/NA	Water	7470A	
400-127497-12	GWC-23	Total/NA	Water	7470A	
400-127497-13	GWC-15	Total/NA	Water	7470A	
400-127497-14	GWC-20	Total/NA	Water	7470A	
400-127497-15	GWC-21	Total/NA	Water	7470A	
400-127497-16	GWC-22	Total/NA	Water	7470A	
400-127497-17	FB-4 (LF)	Total/NA	Water	7470A	
400-127497-18	EB-3 (LF)	Total/NA	Water	7470A	
MB 400-325685/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-325685/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-128259-A-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-128259-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 325757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total Recoverable	Water	6020	324869
400-127497-2	GWC-17	Total Recoverable	Water	6020	324869
400-127497-3	GWC-8	Total Recoverable	Water	6020	324869

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Metals (Continued)

### Analysis Batch: 325757 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-4	GWC-18	Total Recoverable	Water	6020	324869
400-127497-5	FB-3 (LF)	Total Recoverable	Water	6020	324869
400-127497-6	GWC-9	Total Recoverable	Water	6020	324869
400-127497-7	GWC-26	Total Recoverable	Water	6020	324869
400-127497-8	GWC-19	Total Recoverable	Water	6020	324869

### Analysis Batch: 325819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total/NA	Water	7470A	325215
400-127497-2	GWC-17	Total/NA	Water	7470A	325215
400-127497-3	GWC-8	Total/NA	Water	7470A	325215
400-127497-4	GWC-18	Total/NA	Water	7470A	325215
400-127497-5	FB-3 (LF)	Total/NA	Water	7470A	325215
400-127497-6	GWC-9	Total/NA	Water	7470A	325215
MB 400-325215/14-A	Method Blank	Total/NA	Water	7470A	325215
LCS 400-325215/15-A	Lab Control Sample	Total/NA	Water	7470A	325215
400-127746-C-1-C MS	Matrix Spike	Total/NA	Water	7470A	325215
400-127746-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	325215

### Prep Batch: 325849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-19	EB-4 (LF)	Total/NA	Water	7470A	
MB 400-325849/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-325849/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127597-C-2-C MS	Matrix Spike	Total/NA	Water	7470A	
400-127597-C-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 326118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-9	GWC-11	Total Recoverable	Water	3005A	
400-127497-10	GWC-25	Total Recoverable	Water	3005A	
400-127497-11	GWC-30	Total Recoverable	Water	3005A	
400-127497-12	GWC-23	Total Recoverable	Water	3005A	
400-127497-13	GWC-15	Total Recoverable	Water	3005A	
400-127497-14	GWC-20	Total Recoverable	Water	3005A	
400-127497-15	GWC-21	Total Recoverable	Water	3005A	
400-127497-16	GWC-22	Total Recoverable	Water	3005A	
400-127497-17	FB-4 (LF)	Total Recoverable	Water	3005A	
400-127497-18	EB-3 (LF)	Total Recoverable	Water	3005A	
400-127497-19	EB-4 (LF)	Total Recoverable	Water	3005A	
MB 400-326118/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-326118/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-127497-10 MS	GWC-25	Total Recoverable	Water	3005A	
400-127497-10 MSD	GWC-25	Total Recoverable	Water	3005A	

### Analysis Batch: 326133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-9	GWC-11	Total/NA	Water	7470A	325685
400-127497-10	GWC-25	Total/NA	Water	7470A	325685
400-127497-11	GWC-30	Total/NA	Water	7470A	325685
400-127497-12	GWC-23	Total/NA	Water	7470A	325685

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Metals (Continued)

### Analysis Batch: 326133 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-13	GWC-15	Total/NA	Water	7470A	325685
400-127497-14	GWC-20	Total/NA	Water	7470A	325685
400-127497-15	GWC-21	Total/NA	Water	7470A	325685
400-127497-16	GWC-22	Total/NA	Water	7470A	325685
400-127497-17	FB-4 (LF)	Total/NA	Water	7470A	325685
400-127497-18	EB-3 (LF)	Total/NA	Water	7470A	325685
MB 400-325685/14-A	Method Blank	Total/NA	Water	7470A	325685
LCS 400-325685/15-A	Lab Control Sample	Total/NA	Water	7470A	325685
400-128259-A-1-B MS	Matrix Spike	Total/NA	Water	7470A	325685
400-128259-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	325685

### Analysis Batch: 326503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-19	EB-4 (LF)	Total/NA	Water	7470A	325849
MB 400-325849/14-A	Method Blank	Total/NA	Water	7470A	325849
LCS 400-325849/15-A	Lab Control Sample	Total/NA	Water	7470A	325849
400-127597-C-2-C MS	Matrix Spike	Total/NA	Water	7470A	325849
400-127597-C-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	325849

### Analysis Batch: 328072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-9	GWC-11	Total Recoverable	Water	6020	326118
400-127497-10	GWC-25	Total Recoverable	Water	6020	326118
400-127497-11	GWC-30	Total Recoverable	Water	6020	326118
400-127497-12	GWC-23	Total Recoverable	Water	6020	326118
400-127497-13	GWC-15	Total Recoverable	Water	6020	326118
400-127497-14	GWC-20	Total Recoverable	Water	6020	326118
400-127497-15	GWC-21	Total Recoverable	Water	6020	326118
400-127497-16	GWC-22	Total Recoverable	Water	6020	326118
400-127497-17	FB-4 (LF)	Total Recoverable	Water	6020	326118
400-127497-18	EB-3 (LF)	Total Recoverable	Water	6020	326118
400-127497-19	EB-4 (LF)	Total Recoverable	Water	6020	326118
MB 400-326118/1-A ^5	Method Blank	Total Recoverable	Water	6020	326118
LCS 400-326118/2-A	Lab Control Sample	Total Recoverable	Water	6020	326118
400-127497-10 MS	GWC-25	Total Recoverable	Water	6020	326118
400-127497-10 MSD	GWC-25	Total Recoverable	Water	6020	326118

## General Chemistry

### Analysis Batch: 323986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total/NA	Water	SM 2540C	
400-127497-2	GWC-17	Total/NA	Water	SM 2540C	
400-127497-3	GWC-8	Total/NA	Water	SM 2540C	
400-127497-4	GWC-18	Total/NA	Water	SM 2540C	
400-127497-5	FB-3 (LF)	Total/NA	Water	SM 2540C	
400-127497-6	GWC-9	Total/NA	Water	SM 2540C	
400-127497-7	GWC-26	Total/NA	Water	SM 2540C	
400-127497-8	GWC-19	Total/NA	Water	SM 2540C	
400-127497-9	GWC-11	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## General Chemistry (Continued)

### Analysis Batch: 323986 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-10	GWC-25	Total/NA	Water	SM 2540C	
MB 400-323986/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-323986/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127497-4 DU	GWC-18	Total/NA	Water	SM 2540C	

### Analysis Batch: 324162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-11	GWC-30	Total/NA	Water	SM 2540C	
400-127497-12	GWC-23	Total/NA	Water	SM 2540C	
400-127497-13	GWC-15	Total/NA	Water	SM 2540C	
400-127497-14	GWC-20	Total/NA	Water	SM 2540C	
400-127497-15	GWC-21	Total/NA	Water	SM 2540C	
400-127497-16	GWC-22	Total/NA	Water	SM 2540C	
400-127497-17	FB-4 (LF)	Total/NA	Water	SM 2540C	
400-127497-18	EB-3 (LF)	Total/NA	Water	SM 2540C	
400-127497-19	EB-4 (LF)	Total/NA	Water	SM 2540C	
MB 400-324162/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-324162/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-127497-13 DU	GWC-15	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-327005/3**  
**Matrix: Water**  
**Analysis Batch: 327005**

**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			10/14/16 20:07	1
Fluoride	0.132	J	0.20	0.082	mg/L			10/14/16 20:07	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/16 20:07	1

**Lab Sample ID: LCS 400-327005/4**  
**Matrix: Water**  
**Analysis Batch: 327005**

**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	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

**Lab Sample ID: LCSD 400-327005/5**  
**Matrix: Water**  
**Analysis Batch: 327005**

**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	10.6		mg/L		106	90 - 110	1	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	0	15

**Lab Sample ID: 400-127497-1 MS**  
**Matrix: Water**  
**Analysis Batch: 327005**

**Client Sample ID: GWC-27**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.0		10.0	11.0		mg/L		100	80 - 120
Fluoride	0.64	B	10.0	11.1		mg/L		104	80 - 120
Sulfate	1.6		10.0	11.9		mg/L		103	80 - 120

**Lab Sample ID: 400-127497-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 327005**

**Client Sample ID: GWC-27**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.0		10.0	11.0		mg/L		100	80 - 120	0	20
Fluoride	0.64	B	10.0	11.1		mg/L		105	80 - 120	1	20
Sulfate	1.6		10.0	12.0		mg/L		104	80 - 120	1	20

**Lab Sample ID: 400-127497-11 MS**  
**Matrix: Water**  
**Analysis Batch: 327005**

**Client Sample ID: GWC-30**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.3		10.0	11.6		mg/L		103	80 - 120
Fluoride	0.092	J B	10.0	10.8		mg/L		107	80 - 120
Sulfate	1.3		10.0	12.0		mg/L		107	80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 400-327182/4**  
**Matrix: Water**  
**Analysis Batch: 327182**

**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			10/17/16 12:37	1
Fluoride	<0.082		0.20	0.082	mg/L			10/17/16 12:37	1
Sulfate	<0.70		1.0	0.70	mg/L			10/17/16 12:37	1

**Lab Sample ID: LCS 400-327182/5**  
**Matrix: Water**  
**Analysis Batch: 327182**

**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	9.75		mg/L		98	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-327182/6**  
**Matrix: Water**  
**Analysis Batch: 327182**

**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	9.71		mg/L		97	90 - 110	0	15
Fluoride	10.0	9.32		mg/L		93	90 - 110	9	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	3	15

**Lab Sample ID: 400-128556-E-5 MS**  
**Matrix: Water**  
**Analysis Batch: 327182**

**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	F1	50.0	139	F1	mg/L		74	80 - 120
Fluoride	<0.41		50.0	53.3		mg/L		107	80 - 120
Sulfate	9.9		50.0	60.7		mg/L		102	80 - 120

**Lab Sample ID: 400-128556-E-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 327182**

**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	F1	50.0	139	F1	mg/L		73	80 - 120	0	20
Fluoride	<0.41		50.0	52.8		mg/L		106	80 - 120	1	20
Sulfate	9.9		50.0	60.1		mg/L		100	80 - 120	1	20

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

**Lab Sample ID: MB 400-326118/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 328072**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 326118**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/10/16 13:18	10/24/16 12:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/10/16 13:18	10/24/16 12:38	5

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 400-326118/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 328072**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 326118**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		10/10/16 13:18	10/24/16 12:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 12:38	5
Boron	<0.021		0.050	0.021	mg/L		10/10/16 13:18	10/24/16 12:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/10/16 13:18	10/24/16 12:38	5
Calcium	<0.13		0.25	0.13	mg/L		10/10/16 13:18	10/24/16 12:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/10/16 13:18	10/24/16 12:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/10/16 13:18	10/24/16 12:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/10/16 13:18	10/24/16 12:38	5
Lithium	<0.0032		0.0050	0.0032	mg/L		10/10/16 13:18	10/24/16 12:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/10/16 13:18	10/24/16 12:38	5
Selenium	<0.00024 ^		0.0013	0.00024	mg/L		10/10/16 13:18	10/24/16 12:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/10/16 13:18	10/24/16 12:38	5

**Lab Sample ID: LCS 400-326118/2-A**  
**Matrix: Water**  
**Analysis Batch: 328072**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 326118**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0500		mg/L		100	80 - 120
Arsenic	0.0500	0.0525		mg/L		105	80 - 120
Barium	0.0500	0.0484		mg/L		97	80 - 120
Beryllium	0.0500	0.0518		mg/L		104	80 - 120
Boron	0.100	0.0973		mg/L		97	80 - 120
Cadmium	0.0500	0.0497		mg/L		99	80 - 120
Calcium	5.00	5.15		mg/L		103	80 - 120
Chromium	0.0500	0.0514		mg/L		103	80 - 120
Cobalt	0.0500	0.0501		mg/L		100	80 - 120
Lead	0.0500	0.0485		mg/L		97	80 - 120
Lithium	0.0500	0.0506		mg/L		101	80 - 120
Molybdenum	0.0500	0.0497		mg/L		99	80 - 120
Selenium	0.0500	0.0503 ^		mg/L		101	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

**Lab Sample ID: 400-127497-10 MS**  
**Matrix: Water**  
**Analysis Batch: 328072**

**Client Sample ID: GWC-25**  
**Prep Type: Total Recoverable**  
**Prep Batch: 326118**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0534		mg/L		107	75 - 125
Arsenic	<0.00046		0.0500	0.0542		mg/L		108	75 - 125
Barium	0.041		0.0500	0.0925		mg/L		103	75 - 125
Beryllium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125
Boron	<0.021		0.100	0.107		mg/L		107	75 - 125
Cadmium	<0.00034		0.0500	0.0515		mg/L		103	75 - 125
Calcium	8.4		5.00	13.6		mg/L		104	75 - 125
Chromium	<0.0011		0.0500	0.0532		mg/L		106	75 - 125
Cobalt	0.0071		0.0500	0.0590		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0485		mg/L		97	75 - 125
Lithium	<0.0032		0.0500	0.0486		mg/L		97	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: 400-127497-10 MS**  
**Matrix: Water**  
**Analysis Batch: 328072**

**Client Sample ID: GWC-25**  
**Prep Type: Total Recoverable**  
**Prep Batch: 326118**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0510		mg/L		102	75 - 125
Selenium	<0.00024	^	0.0500	0.0516	^	mg/L		103	75 - 125
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125

**Lab Sample ID: 400-127497-10 MSD**  
**Matrix: Water**  
**Analysis Batch: 328072**

**Client Sample ID: GWC-25**  
**Prep Type: Total Recoverable**  
**Prep Batch: 326118**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0524		mg/L		105	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0544		mg/L		109	75 - 125	0	20
Barium	0.041		0.0500	0.0920		mg/L		102	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0514		mg/L		103	75 - 125	2	20
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	0	20
Calcium	8.4		5.00	13.7		mg/L		105	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0538		mg/L		108	75 - 125	1	20
Cobalt	0.0071		0.0500	0.0588		mg/L		103	75 - 125	0	20
Lead	<0.00035		0.0500	0.0481		mg/L		96	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0487		mg/L		97	75 - 125	0	20
Molybdenum	<0.00085		0.0500	0.0509		mg/L		102	75 - 125	0	20
Selenium	<0.00024	^	0.0500	0.0510	^	mg/L		102	75 - 125	1	20
Thallium	<0.00085		0.0100	0.0103		mg/L		103	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-325215/14-A**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/04/16 08:55	10/07/16 08:44	1

**Lab Sample ID: LCS 400-325215/15-A**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000912		mg/L		91	80 - 120

**Lab Sample ID: 400-127746-C-1-C MS**  
**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00176		mg/L		87	80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: 400-127746-C-1-D MSD**

**Matrix: Water**  
**Analysis Batch: 325819**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**  
**Prep Batch: 325215**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00178		mg/L		89	80 - 120	1	20

**Lab Sample ID: MB 400-325233/14-A**

**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/04/16 09:31	10/05/16 12:51	1

**Lab Sample ID: LCS 400-325233/15-A**

**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00107		mg/L		106	80 - 120

**Lab Sample ID: 400-127303-B-1-C MS**

**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00200		mg/L		99	80 - 120

**Lab Sample ID: 400-127303-B-1-D MSD**

**Matrix: Water**  
**Analysis Batch: 325513**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**  
**Prep Batch: 325233**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00196		mg/L		97	80 - 120	2	20

**Lab Sample ID: MB 400-325685/14-A**

**Matrix: Water**  
**Analysis Batch: 326133**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 325685**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/06/16 14:14	10/10/16 13:09	1

**Lab Sample ID: LCS 400-325685/15-A**

**Matrix: Water**  
**Analysis Batch: 326133**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**  
**Prep Batch: 325685**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

**Lab Sample ID: 400-128259-A-1-B MS**

**Matrix: Water**  
**Analysis Batch: 326133**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**  
**Prep Batch: 325685**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00207		mg/L		103	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

**Lab Sample ID: 400-128259-A-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 326133**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 325685**

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

**Lab Sample ID: MB 400-325849/14-A**  
**Matrix: Water**  
**Analysis Batch: 326503**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 325849**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/07/16 12:18	10/12/16 13:51	1

**Lab Sample ID: LCS 400-325849/15-A**  
**Matrix: Water**  
**Analysis Batch: 326503**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 325849**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000995		mg/L		99	80 - 120

**Lab Sample ID: 400-127597-C-2-C MS**  
**Matrix: Water**  
**Analysis Batch: 326503**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 325849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00192		mg/L		95	80 - 120

**Lab Sample ID: 400-127597-C-2-D MSD**  
**Matrix: Water**  
**Analysis Batch: 326503**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 325849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00196		mg/L		97	80 - 120	2	20

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

**Lab Sample ID: MB 400-323986/1**  
**Matrix: Water**  
**Analysis Batch: 323986**

**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			09/24/16 17:56	1

**Lab Sample ID: LCS 400-323986/2**  
**Matrix: Water**  
**Analysis Batch: 323986**

**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

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: 400-127497-4 DU**  
**Matrix: Water**  
**Analysis Batch: 323986**

**Client Sample ID: GWC-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	96		94.0		mg/L		2	5

**Lab Sample ID: MB 400-324162/1**  
**Matrix: Water**  
**Analysis Batch: 324162**

**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			09/26/16 17:03	1

**Lab Sample ID: LCS 400-324162/2**  
**Matrix: Water**  
**Analysis Batch: 324162**

**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	296		mg/L		101	78 - 122

**Lab Sample ID: 400-127497-13 DU**  
**Matrix: Water**  
**Analysis Batch: 324162**

**Client Sample ID: GWC-15**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	72		72.0		mg/L		0	5

TestAmerica Pensacola  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

### Chain of Custody Record

TestAmerica  
 THE LEADER IN ENVIRONMENTAL TESTING

Carrier Tracking No(s):  
 Krislen Swink, Kris Grogan, Ben Hodges, Travis Martinez

Sampler: **Glades Associates** Lab P/N: Whitmire, Cheyenne R  
 Phone: **770-496-1893** E-Mail: cheyenne.whitmire@testamericainc.com  
 Company: Southern Company

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 CCR: Plant Wansley  
 Site: **WANSLEY LF CCR GW**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (w=water, S=solid, O=water/oil, BT=Trace, A=Air)	Preservation Codes		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	936, Ra226, 9320, Ra228, Rad226Rad228, GFPC	620-Sb,As,Ba,Be,Ca,Cd,Cr,Cu,Pb,LMo,Se,Tl, 7470A-Hg	2540C-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate	Total Number of Containers	Special Instructions/Note:
					Sample	Time							
GWC-27	9/19/16	1240	G	Water									
GWC-17	9/19/16	1025	G	Water									
GWC-8	9/19/16	1200	G	Water									
GWC-18	9/19/16	1307	G	Water									
FB-3(LF)	9/19/16	1315	G	Water									
GWC-9	9/19/16	1325	G	Water									
GWC-20	9/19/16	1410	G	Water									
GWC-19	9/19/16	1420	G	Water									
GWC-11	9/19/16	1450	G	Water									
				Water									
				Water									



Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 9/19/16 1730 Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Custody Seals Intact:  Yes  No Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.1°C, 0.2°C, 1.0°C, 1.2°C, 2.8°C IRG



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

COC No: 10f  
 Page: 10f  
 Job #:

Carrier Tracking No(s):

Lab Ref: Whitmore, Chyenne R  
 E-Mail: cheyenne.whitmore@testamericainc.com

Client Contact: Joju Abraham  
 Southern Company

Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7239

PO #: 40007041  
 WO #: 40007041  
 Project #: 40007041  
 SSOV#: Wansley LF CCR GW

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Residue, Swill, On-water, Air, etc.)	Field Filtered Sample (Yes or No)	Analysis Requested		Preservation Codes	Special Instructions/Note
						Form (MS/SD) (Yes or No)	2540C-TDS, 300_ORGM, 20D-Cr, Cd, Cr, Co, Pb, Li, Mn, Se, Ti, 7470A-Hg		
· GWC-25	9/19/16	1530	G	Water	1	1		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 Y - EDA Z - other (specify)	
· GWC-30	9/20/16	1045		Water	1	1			
· GWC-23	9/20/16	0935		Water	1	1			
· GWC-15	9/20/16	0915		Water	1	1			
· GWC-20	9/20/16	0910		Water	1	1			
· GWC-21	9/20/16	1027		Water	1	1			
· GWC-22	9/20/16	1050		Water	1	1			
· FB-4 (LF)	9/20/16	0910		Water	2	1			
· EB-3 (LF)	9/20/16	0905		Water	2	1			
· EB-4 (LF)	9/20/16	1140		Water	1	1			

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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/OC Requirements: MRPADILL@SOUTHERN.CO.COM  
AND REPORT ONLY TO CHMCKSEY@SOUTHERN.CO.COM

Received by: [Signature] Date/Time: 9/20/16 1600  
 Company: Gates  
 Received by: [Signature] Date/Time: 9/21/16 944  
 Company: TA

Cooler Temperature(s) °C and Other Remarks: IFG 0.0°C, 0.1°C, 0.2°C, 1.0°C, 1.0°C, 1.2°C, 2.8°C

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-127497-1  
SDG Number: Wansley LF CCR GW

**Login Number: 127497**

**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	660909, 660910
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	0.0°C, 0.1°C, 0.2°C, 1.0°C, 1.0°C, 1.2°C, 2.8°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 <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 Wansley

TestAmerica Job ID: 400-127497-1  
SDG: Wansley LF CCR GW

## 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	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	12-31-16
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

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: 400-127497-2

TestAmerica Sample Delivery Group: Wansley LF CCR GW

Client Project/Site: CCR Plant Wansley

For:

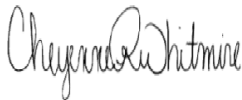
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

10/23/2016 6:42:54 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

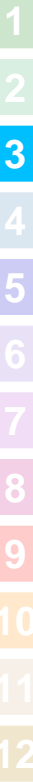
Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

**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 Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127497-1	GWC-27	Water	09/19/16 12:40	09/21/16 09:44
400-127497-2	GWC-17	Water	09/19/16 10:25	09/21/16 09:44
400-127497-3	GWC-8	Water	09/19/16 12:00	09/21/16 09:44
400-127497-4	GWC-18	Water	09/19/16 13:07	09/21/16 09:44
400-127497-5	FB-3 (LF)	Water	09/19/16 13:15	09/21/16 09:44
400-127497-6	GWC-9	Water	09/19/16 13:25	09/21/16 09:44
400-127497-7	GWC-26	Water	09/19/16 14:10	09/21/16 09:44
400-127497-8	GWC-19	Water	09/19/16 14:20	09/21/16 09:44
400-127497-9	GWC-11	Water	09/19/16 14:50	09/21/16 09:44
400-127497-10	GWC-25	Water	09/19/16 15:30	09/21/16 09:44
400-127497-11	GWC-30	Water	09/20/16 10:45	09/21/16 09:44
400-127497-12	GWC-23	Water	09/20/16 09:35	09/21/16 09:44
400-127497-13	GWC-15	Water	09/20/16 09:15	09/21/16 09:44
400-127497-14	GWC-20	Water	09/20/16 09:10	09/21/16 09:44
400-127497-15	GWC-21	Water	09/20/16 10:27	09/21/16 09:44
400-127497-16	GWC-22	Water	09/20/16 10:50	09/21/16 09:44
400-127497-17	FB-4 (LF)	Water	09/20/16 09:10	09/21/16 09:44
400-127497-18	EB-3 (LF)	Water	09/20/16 09:05	09/21/16 09:44
400-127497-19	EB-4 (LF)	Water	09/20/16 11:40	09/21/16 09:44

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-27**

**Date Collected: 09/19/16 12:40**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.457		0.114	0.121	1.00	0.0958	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.5		40 - 110					09/28/16 14:57	10/20/16 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.941		0.379	0.388	1.00	0.528	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.5		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	87.9		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.40		0.395	0.407	5.00	0.528	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-127497-2**

**Date Collected: 09/19/16 10:25**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0660	U	0.0705	0.0708	1.00	0.115	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					09/28/16 14:57	10/20/16 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.253	U	0.309	0.310	1.00	0.511	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	87.9		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.319	U	0.317	0.318	5.00	0.511	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-8**  
**Date Collected: 09/19/16 12:00**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.219		0.0743	0.0769	1.00	0.0745	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					09/28/16 14:57	10/20/16 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.715		0.306	0.313	1.00	0.437	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	84.5		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.934		0.315	0.322	5.00	0.437	pCi/L		10/21/16 09:29	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-127497-4**

**Date Collected: 09/19/16 13:07**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0703	U	0.0673	0.0676	1.00	0.107	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					09/28/16 14:57	10/20/16 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.255	U	0.264	0.266	1.00	0.431	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	84.9		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.326	U	0.273	0.274	5.00	0.431	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: FB-3 (LF)**

**Lab Sample ID: 400-127497-5**

**Date Collected: 09/19/16 13:15**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0848		0.0562	0.0568	1.00	0.0790	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					09/28/16 14:57	10/20/16 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.148	U	0.227	0.227	1.00	0.382	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	87.5		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.233	U	0.234	0.234	5.00	0.382	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-9**  
**Date Collected: 09/19/16 13:25**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-6**  
**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	0.320		0.0941	0.0984	1.00	0.0985	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					09/28/16 14:57	10/20/16 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.454		0.264	0.267	1.00	0.396	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	87.1		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.774		0.280	0.284	5.00	0.396	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-26**

**Date Collected: 09/19/16 14:10**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-7**

**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	0.0997		0.0639	0.0645	1.00	0.0914	pCi/L	09/28/16 14:57	10/20/16 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					09/28/16 14:57	10/20/16 10:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.140	U	0.254	0.254	1.00	0.431	pCi/L	09/28/16 18:07	10/14/16 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					09/28/16 18:07	10/14/16 14:53	1
Y Carrier	84.1		40 - 110					09/28/16 18:07	10/14/16 14:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.240	U	0.262	0.262	5.00	0.431	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-19**  
**Date Collected: 09/19/16 14:20**  
**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-8**  
**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	0.106		0.0572	0.0580	1.00	0.0733	pCi/L	09/28/16 14:57	10/20/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					09/28/16 14:57	10/20/16 10:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.302	U	0.255	0.256	1.00	0.406	pCi/L	09/28/16 18:07	10/14/16 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					09/28/16 18:07	10/14/16 14:54	1
Y Carrier	83.4		40 - 110					09/28/16 18:07	10/14/16 14:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.408		0.261	0.263	5.00	0.406	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-127497-9**

**Date Collected: 09/19/16 14:50**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.750		0.132	0.148	1.00	0.107	pCi/L	09/28/16 14:57	10/20/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110					09/28/16 14:57	10/20/16 10:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.623		0.280	0.286	1.00	0.400	pCi/L	09/28/16 18:07	10/14/16 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110					09/28/16 18:07	10/14/16 14:54	1
Y Carrier	83.7		40 - 110					09/28/16 18:07	10/14/16 14:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.37		0.309	0.322	5.00	0.400	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-25**

**Date Collected: 09/19/16 15:30**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-10**

**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	0.156		0.0700	0.0714	1.00	0.0799	pCi/L	09/28/16 14:57	10/20/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					09/28/16 14:57	10/20/16 10:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.144	U	0.269	0.269	1.00	0.508	pCi/L	09/28/16 18:07	10/14/16 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					09/28/16 18:07	10/14/16 14:54	1
Y Carrier	87.1		40 - 110					09/28/16 18:07	10/14/16 14:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0122	U	0.278	0.279	5.00	0.508	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-127497-11**

**Date Collected: 09/20/16 10:45**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0780	U	0.0566	0.0570	1.00	0.0826	pCi/L	09/28/16 14:57	10/20/16 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		40 - 110					09/28/16 14:57	10/20/16 10:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0665	U	0.241	0.241	1.00	0.420	pCi/L	09/28/16 18:07	10/14/16 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		40 - 110					09/28/16 18:07	10/14/16 14:54	1
Y Carrier	86.7		40 - 110					09/28/16 18:07	10/14/16 14:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.144	U	0.248	0.248	5.00	0.420	pCi/L		10/21/16 09:29	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-127497-12**

**Date Collected: 09/20/16 09:35**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.158		0.0761	0.0774	1.00	0.101	pCi/L	09/28/16 14:57	10/20/16 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					09/28/16 14:57	10/20/16 10:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.204	U	0.261	0.262	1.00	0.434	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	84.1		40 - 110					09/28/16 18:07	10/14/16 14:45	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	U	0.272	0.273	5.00	0.434	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-127497-13**

**Date Collected: 09/20/16 09:15**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0874		0.0601	0.0606	1.00	0.0873	pCi/L	09/28/16 14:57	10/20/16 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.4		40 - 110					09/28/16 14:57	10/20/16 10:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0825	U	0.253	0.254	1.00	0.438	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.4		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	86.4		40 - 110					09/28/16 18:07	10/14/16 14:45	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	0.260	0.261	5.00	0.438	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-20**

**Date Collected: 09/20/16 09:10**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-14**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0475	U	0.0655	0.0656	1.00	0.110	pCi/L	09/28/16 14:57	10/20/16 10:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					09/28/16 14:57	10/20/16 10:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.465		0.254	0.257	1.00	0.380	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	90.5		40 - 110					09/28/16 18:07	10/14/16 14:45	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		0.262	0.265	5.00	0.380	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-21**

**Date Collected: 09/20/16 10:27**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-15**

**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	0.0444	U	0.0620	0.0621	1.00	0.104	pCi/L	09/28/16 14:57	10/20/16 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.4		40 - 110					09/28/16 14:57	10/20/16 10:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.112	U	0.231	0.231	1.00	0.430	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.4		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	86.4		40 - 110					09/28/16 18:07	10/14/16 14:45	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	-0.0679	U	0.239	0.239	5.00	0.430	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-127497-16**

**Date Collected: 09/20/16 10:50**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0135	U	0.0402	0.0402	1.00	0.0845	pCi/L	09/28/16 14:57	10/20/16 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.4		40 - 110					09/28/16 14:57	10/20/16 12:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.233	U	0.242	0.243	1.00	0.394	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.4		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	93.1		40 - 110					09/28/16 18:07	10/14/16 14:45	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	0.220	U	0.245	0.246	5.00	0.394	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-4 (LF)**

**Lab Sample ID: 400-127497-17**

**Date Collected: 09/20/16 09:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0499	U	0.0679	0.0680	1.00	0.114	pCi/L	09/28/16 14:57	10/20/16 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					09/28/16 14:57	10/20/16 10:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0458	U	0.250	0.250	1.00	0.437	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	90.1		40 - 110					09/28/16 18:07	10/14/16 14:45	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	0.0958	U	0.259	0.259	5.00	0.437	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-127497-18**

**Date Collected: 09/20/16 09:05**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0414	U	0.0422	0.0423	1.00	0.0662	pCi/L	09/28/16 14:57	10/20/16 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					09/28/16 14:57	10/20/16 10:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0235	U	0.216	0.216	1.00	0.383	pCi/L	09/28/16 18:07	10/14/16 14:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					09/28/16 18:07	10/14/16 14:45	1
Y Carrier	89.3		40 - 110					09/28/16 18:07	10/14/16 14:45	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	0.0649	U	0.220	0.220	5.00	0.383	pCi/L		10/21/16 09:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: EB-4 (LF)**

**Lab Sample ID: 400-127497-19**

**Date Collected: 09/20/16 11:40**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0562	U	0.0511	0.0514	1.00	0.0789	pCi/L	09/28/16 14:57	10/20/16 10:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					09/28/16 14:57	10/20/16 10:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0314	U	0.219	0.219	1.00	0.389	pCi/L	09/28/16 18:07	10/14/16 14:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					09/28/16 18:07	10/14/16 14:46	1
Y Carrier	88.2		40 - 110					09/28/16 18:07	10/14/16 14:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0876	U	0.225	0.225	5.00	0.389	pCi/L		10/21/16 09:29	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

## 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 Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-27**

**Date Collected: 09/19/16 12:40**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275241	10/20/16 10:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-17**

**Date Collected: 09/19/16 10:25**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275241	10/20/16 10:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-8**

**Date Collected: 09/19/16 12:00**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275241	10/20/16 10:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-18**

**Date Collected: 09/19/16 13:07**

**Date Received: 09/21/16 09:44**

**Lab Sample ID: 400-127497-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275241	10/20/16 10:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-3 (LF)**

**Lab Sample ID: 400-127497-5**

**Date Collected: 09/19/16 13:15**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275241	10/20/16 10:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-127497-6**

**Date Collected: 09/19/16 13:25**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275241	10/20/16 10:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-127497-7**

**Date Collected: 09/19/16 14:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-127497-8**

**Date Collected: 09/19/16 14:20**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-127497-9**

**Date Collected: 09/19/16 14:50**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-127497-10**

**Date Collected: 09/19/16 15:30**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-127497-11**

**Date Collected: 09/20/16 10:45**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274546	10/14/16 14:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-127497-12**

**Date Collected: 09/20/16 09:35**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-127497-13**

**Date Collected: 09/20/16 09:15**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-127497-14**

**Date Collected: 09/20/16 09:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-127497-15**

**Date Collected: 09/20/16 10:27**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-127497-16**

**Date Collected: 09/20/16 10:50**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 12:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

**Client Sample ID: FB-4 (LF)**

**Lab Sample ID: 400-127497-17**

**Date Collected: 09/20/16 09:10**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: EB-3 (LF)**

**Lab Sample ID: 400-127497-18**

**Date Collected: 09/20/16 09:05**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	RTM	TAL SL

**Client Sample ID: EB-4 (LF)**

**Lab Sample ID: 400-127497-19**

**Date Collected: 09/20/16 11:40**

**Matrix: Water**

**Date Received: 09/21/16 09:44**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272310	09/28/16 14:57	MCJ	TAL SL
Total/NA	Analysis	9315		1	275247	10/20/16 10:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272311	09/28/16 18:07	MCJ	TAL SL
Total/NA	Analysis	9320		1	274548	10/14/16 14:46	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275506	10/21/16 09:29	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 Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

## Rad

### Prep Batch: 272310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total/NA	Water	PrecSep-21	
400-127497-2	GWC-17	Total/NA	Water	PrecSep-21	
400-127497-3	GWC-8	Total/NA	Water	PrecSep-21	
400-127497-4	GWC-18	Total/NA	Water	PrecSep-21	
400-127497-5	FB-3 (LF)	Total/NA	Water	PrecSep-21	
400-127497-6	GWC-9	Total/NA	Water	PrecSep-21	
400-127497-7	GWC-26	Total/NA	Water	PrecSep-21	
400-127497-8	GWC-19	Total/NA	Water	PrecSep-21	
400-127497-9	GWC-11	Total/NA	Water	PrecSep-21	
400-127497-10	GWC-25	Total/NA	Water	PrecSep-21	
400-127497-11	GWC-30	Total/NA	Water	PrecSep-21	
400-127497-12	GWC-23	Total/NA	Water	PrecSep-21	
400-127497-13	GWC-15	Total/NA	Water	PrecSep-21	
400-127497-14	GWC-20	Total/NA	Water	PrecSep-21	
400-127497-15	GWC-21	Total/NA	Water	PrecSep-21	
400-127497-16	GWC-22	Total/NA	Water	PrecSep-21	
400-127497-17	FB-4 (LF)	Total/NA	Water	PrecSep-21	
400-127497-18	EB-3 (LF)	Total/NA	Water	PrecSep-21	
400-127497-19	EB-4 (LF)	Total/NA	Water	PrecSep-21	
MB 160-272310/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-272310/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-19088-W-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 272311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127497-1	GWC-27	Total/NA	Water	PrecSep_0	
400-127497-2	GWC-17	Total/NA	Water	PrecSep_0	
400-127497-3	GWC-8	Total/NA	Water	PrecSep_0	
400-127497-4	GWC-18	Total/NA	Water	PrecSep_0	
400-127497-5	FB-3 (LF)	Total/NA	Water	PrecSep_0	
400-127497-6	GWC-9	Total/NA	Water	PrecSep_0	
400-127497-7	GWC-26	Total/NA	Water	PrecSep_0	
400-127497-8	GWC-19	Total/NA	Water	PrecSep_0	
400-127497-9	GWC-11	Total/NA	Water	PrecSep_0	
400-127497-10	GWC-25	Total/NA	Water	PrecSep_0	
400-127497-11	GWC-30	Total/NA	Water	PrecSep_0	
400-127497-12	GWC-23	Total/NA	Water	PrecSep_0	
400-127497-13	GWC-15	Total/NA	Water	PrecSep_0	
400-127497-14	GWC-20	Total/NA	Water	PrecSep_0	
400-127497-15	GWC-21	Total/NA	Water	PrecSep_0	
400-127497-16	GWC-22	Total/NA	Water	PrecSep_0	
400-127497-17	FB-4 (LF)	Total/NA	Water	PrecSep_0	
400-127497-18	EB-3 (LF)	Total/NA	Water	PrecSep_0	
400-127497-19	EB-4 (LF)	Total/NA	Water	PrecSep_0	
MB 160-272311/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-272311/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-19088-W-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

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

**Lab Sample ID: MB 160-272310/1-A**  
**Matrix: Water**  
**Analysis Batch: 275241**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 272310**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06447	U	0.0631	0.0634	1.00	0.0994	pCi/L	09/28/16 14:57	10/20/16 10:49	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					09/28/16 14:57	10/20/16 10:49	1

**Lab Sample ID: LCS 160-272310/2-A**  
**Matrix: Water**  
**Analysis Batch: 275241**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 272310**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	13.63		1.33	1.00	0.0849	pCi/L	123	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	89.2		40 - 110						

**Lab Sample ID: 160-19088-W-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 275405**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 272310**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.306		0.3735		0.0994	1.00	0.0918	pCi/L	0.36	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	99.7		40 - 110							

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

**Lab Sample ID: MB 160-272311/1-A**  
**Matrix: Water**  
**Analysis Batch: 274546**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 272311**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.02596	U	0.220	0.220	1.00	0.402	pCi/L	09/28/16 18:07	10/14/16 14:52	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					09/28/16 18:07	10/14/16 14:52	1
Y Carrier	87.1		40 - 110					09/28/16 18:07	10/14/16 14:52	1



# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-127497-2  
 SDG: Wansley LF CCR GW

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

**Lab Sample ID: LCS 160-272311/2-A**  
**Matrix: Water**  
**Analysis Batch: 274546**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 272311**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.4	15.06		1.64	1.00	0.431	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.2		40 - 110
Y Carrier	89.7		40 - 110

**Lab Sample ID: 160-19088-W-1-B DU**  
**Matrix: Water**  
**Analysis Batch: 274548**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 272311**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.686		0.4887		0.250	1.00	0.360	pCi/L	0.38	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	90.5		40 - 110

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Chain of Custody Record**

→ Krislen Swink, Kris Grogan, Ben Hodges, Travis Martinez  
 Carrier Tracking No(s):

**Client Information**  
 Client Contact: Joju Abraham  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7339  
 Email: JAbraham@southernco.com  
 Project #: 40007041  
 CCR: Plant Wansley  
 Site: WANSLEY LF CCR GW

**Sampler:** Golder Associates  
 Lab P/N: Whitmire, Cheyenne R  
 Phone: 770-496-1893  
 E-Mail: cheyenne.whitmire@testamericainc.com

**Analysis Requested**

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SOW #:

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 - Na2SOS  
 R - Na2S2O3  
 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=water/oil, BT=Trace, A=Al)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	936, Ra226, 9320, Ra228, Rad226Rad228, GFPC	620-Sb,As,Ba,Be,Ca,Cd,Cr,Co,Pb,LMo,Se,Tl, 7470A-Hg	25400-TDS, 300_ORGFM_28D-Chloride, Fluoride, Sulfate	Total Number of Containers	Special Instructions/Note:
GWC-27	9/19/16	1240	G	Water							
GWC-17	9/19/16	1025	G	Water							
GWC-8	9/19/16	1200	G	Water							
GWC-18	9/19/16	1307	G	Water							
FB-3(LF)	9/19/16	1315	G	Water							
GWC-9	9/19/16	1325	G	Water							
GWC-20	9/19/16	1410	G	Water							
GWC-19	9/19/16	1420	G	Water							
GWC-11	9/19/16	1450	G	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: 9/19/16 1730 Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.1°C, 0.2°C, 1.0°C, 1.2°C, 2.8°C IRG



400-127497 COC

1  
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11  
12

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

COC No: **10f**  
 Job #:

Carrier Tracking No(s):  
 Lab Rpt: Whitmire, Chyenne R  
 E-Mail: chyenne.whitmire@testamericainc.com

Client Information  
 Client Contact: **GOLDER ASSOCIATES**  
 Phone: **770-496-1893**

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 Wansley  
 Site: **Wansley LF CCR GW**

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Residue, Swab, On-water, Air, etc.)	Field Filtered Sample (Yes or No)	Form (MS/SD, Yes or No)	Analysis Requested	Preservation Codes	Special Instructions/Note
GWC-25	9/19/16	1530	G	Water			935, Ra226, 9320, Ra228, Rad226Rad228, GPPC	A-HCL, M-Hexane, N-None, O-AsNaO2, C-Zn Acetate, D-Nitric Acid, E-NH4SO4, F-MeOH, G-Antchlor, H-Ascorbic Acid, I-Ice, J-DI Water, K-EDTA, L-EDA, Z-other (specify)	
GWC-30	9/20/16	1045		Water			6020-Sb, As, Ba, Be, Bi, Cd, Cr, Co, Pb, Li, Mn, Se, Ti, 7470A-Hg		
GWC-23	9/20/16	0935		Water			2540C-TDS, 300_ORGM, 20D-Chloride, Fluoride, Sulfate		
GWC-15	9/20/16	0915		Water					
GWC-20	9/20/16	0910		Water					
GWC-21	9/20/16	1027		Water					
GWC-22	9/20/16	1050		Water					
FB-4 (LF)	9/20/16	0910		Water					
EB-3 (LF)	9/20/16	0905		Water					
EB-4 (LF)	9/20/16	1140		Water					

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #: 40007041  
 SSOW#:

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

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

Empty Kit Relinquished by:  
 Relinquished by: *[Signature]* Date: 9/20/16 1600  
 Relinquished by: *[Signature]* Date: 9/21/16 944  
 Relinquished by: *[Signature]* Date: *[Blank]*

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/OC Requirements: **MRPADILL@SOUTHERNCO.COM**  
**SEND REPORT ONLY TO CHMCKSEY@SOUTHERNCO.COM**

Received by: *[Signature]* Date/Time: 9/21/16 944  
 Received by: *[Signature]* Date/Time: *[Blank]*  
 Received by: *[Signature]* Date/Time: *[Blank]*

Cooler Temperature(s) °C and Other Remarks: **IFG 0.0°C, 0.1°C, 0.2°C, 1.0°C, 1.0°C, 1.2°C, 2.8°C**



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-127497-2  
SDG Number: Wansley LF CCR GW

**Login Number: 127497**

**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	660909, 660910
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	0.0°C, 0.1°C, 0.2°C, 1.0°C, 1.0°C, 1.2°C, 2.8°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 <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 Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

## 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	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	12-31-16
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	10-31-17
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 Wansley

TestAmerica Job ID: 400-127497-2  
SDG: Wansley LF CCR GW

## 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	06-30-17
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

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: 400-129966-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

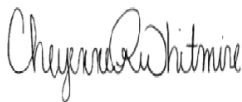
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/1/2016 10:37:40 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://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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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

## Client Sample ID: GWA-28

## Lab Sample ID: 400-129966-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.7		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0016	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00041	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	2.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0044		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.021		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0075	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-129966-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	8.1		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.17		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.010		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-2

## Lab Sample ID: 400-129966-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.79	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	58		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 Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129966-1	GWA-28	Water	11/09/16 12:10	11/11/16 09:53
400-129966-2	GWA-4	Water	11/10/16 11:45	11/12/16 08:50
400-129966-3	GWA-2	Water	11/10/16 15:00	11/12/16 08:50

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 11/09/16 12:10**

**Date Received: 11/11/16 09:53**

**Lab Sample ID: 400-129966-1**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			11/30/16 07:49	1
Fluoride	1.7		0.20	0.082	mg/L			11/30/16 07:49	1
Sulfate	1.1		1.0	0.70	mg/L			11/30/16 07:49	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		11/14/16 08:55	11/17/16 19:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 19:58	5
Barium	0.0016	J	0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 19:58	5
Beryllium	0.00041	J	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 19:58	5
Boron	<0.021		0.050	0.021	mg/L		11/14/16 08:55	11/17/16 19:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 19:58	5
Calcium	2.6		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 19:58	5
Chromium	0.0044		0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 19:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 19:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 19:58	5
Lithium	0.021		0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 19:58	5
Molybdenum	0.0075	J	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 19:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 19:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 19:58	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		11/14/16 10:54	11/18/16 13:12	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	80		5.0	3.4	mg/L			11/12/16 16:50	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 11/10/16 11:45**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>23</b>		1.0	0.89	mg/L			11/30/16 08:12	1
Fluoride	<0.082		0.20	0.082	mg/L			11/30/16 08:12	1
<b>Sulfate</b>	<b>8.1</b>		1.0	0.70	mg/L			11/30/16 08:12	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		11/14/16 08:55	11/17/16 20:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 20:03	5
<b>Barium</b>	<b>0.17</b>		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 20:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 20:03	5
Boron	<0.021		0.050	0.021	mg/L		11/14/16 08:55	11/17/16 20:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 20:03	5
<b>Calcium</b>	<b>27</b>		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 20:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 20:03	5
<b>Cobalt</b>	<b>0.010</b>		0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 20:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 20:03	5
<b>Lithium</b>	<b>0.0046</b>	<b>J</b>	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 20:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 20:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 20:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 20:03	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		11/14/16 10:54	11/18/16 13:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>180</b>		5.0	3.4	mg/L			11/15/16 16:26	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 11/10/16 15:00**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-3**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.6</b>		1.0	0.89	mg/L			11/30/16 08:35	1
Fluoride	<0.082		0.20	0.082	mg/L			11/30/16 08:35	1
<b>Sulfate</b>	<b>0.79</b>	<b>J</b>	1.0	0.70	mg/L			11/30/16 08:35	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		11/14/16 08:55	11/17/16 20:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 20:07	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 20:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 20:07	5
Boron	<0.021		0.050	0.021	mg/L		11/14/16 08:55	11/17/16 20:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 20:07	5
<b>Calcium</b>	<b>3.7</b>		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 20:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 20:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 20:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 20:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 20:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 20:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 20:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 20:07	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		11/14/16 10:54	11/18/16 13:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>58</b>		5.0	3.4	mg/L			11/15/16 16:26	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

## 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.
F1	MS and/or MSD Recovery is outside acceptance limits.

### 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, 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 Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 11/09/16 12:10**

**Date Received: 11/11/16 09:53**

**Lab Sample ID: 400-129966-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333094	11/30/16 07:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 19:58	AJR	TAL PEN
Total/NA	Prep	7470A			330940	11/14/16 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331706	11/18/16 13:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 11/10/16 11:45**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333094	11/30/16 08:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 20:03	AJR	TAL PEN
Total/NA	Prep	7470A			330940	11/14/16 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331706	11/18/16 13:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331207	11/15/16 16:26	TET	TAL PEN

**Client Sample ID: GWA-2**

**Date Collected: 11/10/16 15:00**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333094	11/30/16 08:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 20:07	AJR	TAL PEN
Total/NA	Prep	7470A			330940	11/14/16 10:54	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331706	11/18/16 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331207	11/15/16 16:26	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 Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total/NA	Water	300.0	
400-129966-2	GWA-4	Total/NA	Water	300.0	
400-129966-3	GWA-2	Total/NA	Water	300.0	
MB 400-333094/35	Method Blank	Total/NA	Water	300.0	
LCS 400-333094/36	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-333094/37	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130328-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
400-130328-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 330900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total Recoverable	Water	3005A	
400-129966-2	GWA-4	Total Recoverable	Water	3005A	
400-129966-3	GWA-2	Total Recoverable	Water	3005A	
MB 400-330900/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-330900/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-129942-B-4-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-129942-B-4-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 330940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total/NA	Water	7470A	
400-129966-2	GWA-4	Total/NA	Water	7470A	
400-129966-3	GWA-2	Total/NA	Water	7470A	
MB 400-330940/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-330940/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-129787-J-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-129787-J-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 331378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-330900/1-A ^5	Method Blank	Total Recoverable	Water	6020	330900
LCS 400-330900/2-A	Lab Control Sample	Total Recoverable	Water	6020	330900
400-129942-B-4-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	330900
400-129942-B-4-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	330900

### Analysis Batch: 331606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total Recoverable	Water	6020	330900
400-129966-2	GWA-4	Total Recoverable	Water	6020	330900
400-129966-3	GWA-2	Total Recoverable	Water	6020	330900

### Analysis Batch: 331706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total/NA	Water	7470A	330940
400-129966-2	GWA-4	Total/NA	Water	7470A	330940
400-129966-3	GWA-2	Total/NA	Water	7470A	330940
MB 400-330940/14-A	Method Blank	Total/NA	Water	7470A	330940

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 331706 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-330940/15-A	Lab Control Sample	Total/NA	Water	7470A	330940
400-129787-J-3-B MS	Matrix Spike	Total/NA	Water	7470A	330940
400-129787-J-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	330940

## General Chemistry

### Analysis Batch: 330817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total/NA	Water	SM 2540C	
MB 400-330817/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-330817/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129966-1 DU	GWA-28	Total/NA	Water	SM 2540C	

### Analysis Batch: 331207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-2	GWA-4	Total/NA	Water	SM 2540C	
400-129966-3	GWA-2	Total/NA	Water	SM 2540C	
MB 400-331207/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331207/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129966-2 DU	GWA-4	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333094/35**  
**Matrix: Water**  
**Analysis Batch: 333094**

**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			11/29/16 22:18	1
Fluoride	<0.082		0.20	0.082	mg/L			11/29/16 22:18	1
Sulfate	<0.70		1.0	0.70	mg/L			11/29/16 22:18	1

**Lab Sample ID: LCS 400-333094/36**  
**Matrix: Water**  
**Analysis Batch: 333094**

**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	9.92		mg/L		99	90 - 110
Fluoride	10.0	9.86		mg/L		99	90 - 110
Sulfate	10.0	9.55		mg/L		96	90 - 110

**Lab Sample ID: LCSD 400-333094/37**  
**Matrix: Water**  
**Analysis Batch: 333094**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.94		mg/L		99	90 - 110	0	15
Fluoride	10.0	9.87		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.52		mg/L		95	90 - 110	0	15

**Lab Sample ID: 400-130328-A-6 MS**  
**Matrix: Water**  
**Analysis Batch: 333094**

**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	27	F1	50.0	67.3		mg/L		80	80 - 120
Fluoride	0.41	J	50.0	51.8		mg/L		104	80 - 120
Sulfate	170	F1	50.0	221		mg/L		92	80 - 120

**Lab Sample ID: 400-130328-A-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 333094**

**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	27	F1	50.0	65.4	F1	mg/L		76	80 - 120	3	20
Fluoride	0.41	J	50.0	51.6		mg/L		103	80 - 120	0	20
Sulfate	170	F1	50.0	209	F1	mg/L		68	80 - 120	6	20

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

**Lab Sample ID: MB 400-330900/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 331378**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 330900**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/14/16 08:55	11/16/16 14:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/14/16 08:55	11/16/16 14:39	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-330900/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 331378**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 330900**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		11/14/16 08:55	11/16/16 14:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/16/16 14:39	5
Boron	<0.021		0.050	0.021	mg/L		11/14/16 08:55	11/16/16 14:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/14/16 08:55	11/16/16 14:39	5
Calcium	<0.13		0.25	0.13	mg/L		11/14/16 08:55	11/16/16 14:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/14/16 08:55	11/16/16 14:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/14/16 08:55	11/16/16 14:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/14/16 08:55	11/16/16 14:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/14/16 08:55	11/16/16 14:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/14/16 08:55	11/16/16 14:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/14/16 08:55	11/16/16 14:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/14/16 08:55	11/16/16 14:39	5

**Lab Sample ID: LCS 400-330900/2-A**  
**Matrix: Water**  
**Analysis Batch: 331378**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 330900**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0496		mg/L		99	80 - 120
Arsenic	0.0500	0.0498		mg/L		100	80 - 120
Barium	0.0500	0.0487		mg/L		97	80 - 120
Beryllium	0.0500	0.0446		mg/L		89	80 - 120
Boron	0.100	0.0897		mg/L		90	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0479		mg/L		96	80 - 120
Cobalt	0.0500	0.0483		mg/L		97	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Lithium	0.0500	0.0474		mg/L		95	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Selenium	0.0500	0.0483		mg/L		97	80 - 120
Thallium	0.0100	0.00986		mg/L		99	80 - 120

**Lab Sample ID: 400-129942-B-4-B MS ^25**  
**Matrix: Water**  
**Analysis Batch: 331378**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 330900**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0050		0.0500	0.0522		mg/L		104	75 - 125
Arsenic	0.31		0.0500	0.360	4	mg/L		99	75 - 125
Barium	0.056		0.0500	0.103		mg/L		96	75 - 125
Beryllium	<0.0017		0.0500	0.0462		mg/L		92	75 - 125
Boron	1.6		0.100	1.70	4	mg/L		86	75 - 125
Cadmium	<0.0017		0.0500	0.0471		mg/L		94	75 - 125
Calcium	100		5.00	104	4	mg/L		72	75 - 125
Chromium	<0.0055		0.0500	0.0465		mg/L		93	75 - 125
Cobalt	0.0042	J	0.0500	0.0517		mg/L		95	75 - 125
Lead	<0.0018		0.0500	0.0472		mg/L		94	75 - 125
Lithium	0.050		0.0500	0.0980		mg/L		95	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-129942-B-4-B MS ^25**  
**Matrix: Water**  
**Analysis Batch: 331378**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 330900**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.017	J	0.0500	0.0656	J	mg/L		98	75 - 125
Selenium	<0.0012		0.0500	0.0615		mg/L		123	75 - 125
Thallium	<0.00043		0.0100	0.00963		mg/L		96	75 - 125

**Lab Sample ID: 400-129942-B-4-C MSD ^25**  
**Matrix: Water**  
**Analysis Batch: 331378**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 330900**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0050		0.0500	0.0483		mg/L		97	75 - 125	8	20
Arsenic	0.31		0.0500	0.361	4	mg/L		101	75 - 125	0	20
Barium	0.056		0.0500	0.105		mg/L		99	75 - 125	1	20
Beryllium	<0.0017		0.0500	0.0467		mg/L		93	75 - 125	1	20
Boron	1.6		0.100	1.74	4	mg/L		126	75 - 125	2	20
Cadmium	<0.0017		0.0500	0.0475		mg/L		95	75 - 125	1	20
Calcium	100		5.00	105	4	mg/L		82	75 - 125	0	20
Chromium	<0.0055		0.0500	0.0459		mg/L		92	75 - 125	1	20
Cobalt	0.0042	J	0.0500	0.0512		mg/L		94	75 - 125	1	20
Lead	<0.0018		0.0500	0.0480		mg/L		96	75 - 125	2	20
Lithium	0.050		0.0500	0.0956		mg/L		90	75 - 125	3	20
Molybdenum	0.017	J	0.0500	0.0671	J	mg/L		101	75 - 125	2	20
Selenium	<0.0012		0.0500	0.0562		mg/L		112	75 - 125	9	20
Thallium	<0.00043		0.0100	0.00985		mg/L		99	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-330940/14-A**  
**Matrix: Water**  
**Analysis Batch: 331706**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 330940**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/14/16 09:36	11/18/16 12:41	1

**Lab Sample ID: LCS 400-330940/15-A**  
**Matrix: Water**  
**Analysis Batch: 331706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 330940**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000846		mg/L		84	80 - 120

**Lab Sample ID: 400-129787-J-3-B MS**  
**Matrix: Water**  
**Analysis Batch: 331706**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 330940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00181		mg/L		90	80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-129787-J-3-C MSD**  
**Matrix: Water**  
**Analysis Batch: 331706**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 330940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00179		mg/L		89	80 - 120	1	20

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

**Lab Sample ID: MB 400-330817/1**  
**Matrix: Water**  
**Analysis Batch: 330817**

**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			11/12/16 16:50	1

**Lab Sample ID: LCS 400-330817/2**  
**Matrix: Water**  
**Analysis Batch: 330817**

**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: 400-129966-1 DU**  
**Matrix: Water**  
**Analysis Batch: 330817**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	Prepared	RPD	RPD Limit
Total Dissolved Solids	80		80.0		mg/L			0	5

**Lab Sample ID: MB 400-331207/1**  
**Matrix: Water**  
**Analysis Batch: 331207**

**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			11/15/16 16:26	1

**Lab Sample ID: LCS 400-331207/2**  
**Matrix: Water**  
**Analysis Batch: 331207**

**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: 400-129966-2 DU**  
**Matrix: Water**  
**Analysis Batch: 331207**

**Client Sample ID: GWA-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	Prepared	RPD	RPD Limit
Total Dissolved Solids	180		180		mg/L			0	5

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: Taylor Payne T.P.  
 Lab PM: Whitmire, Chyenenne R  
 Client Contact: Joju Abraham  
 E-Mail: chyenenne.whitmire@testamericainc.com  
 Phone: [Blank]

Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7299  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR  
 Due Date Requested: [Blank]  
 TAT Requested (days): [Blank]  
 PO #: [Blank]  
 WO #: [Blank]  
 Project #: [Blank]  
 SSOW#: [Blank]

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, etc.)	Preservation Code: <small>BT-Tissue, A=Air</small>	Analysis Requested				Special Instructions/Note:		
						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2640C ; Cl <sup>-</sup> , SO <sub>4</sub> - EPA 300	Metals - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9316 & 9320	Total Number of Containers
GWA-28	11/9/16	1210	G	W	N	X	X	1	1	1	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify) [Blank]

Empty Kit Relinquished by: [Blank] Date: [Blank]  
 Relinquished by: [Signature] Date/Time: 11/9/16 13:46 Company: ERM  
 Relinquished by: [Signature] Date/Time: 11/9/16 14:50 Company: TA  
 Relinquished by: [Signature] Date/Time: 11/10/16 13:45 Company: TA  
 Relinquished by: [Signature] Date/Time: 11/11/16 9:53 Company: TA  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C IR-6

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For [Blank] Months  
 Special Instructions/QC Requirements: Please cc: Maria Padilla and Heath McCorkle with results

Method of Shipment: [Blank]  
 Date/Time: [Blank]  
 Company: [Blank]



681-Atlanta  
 400-129966 COC

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: Taylor Payne T.P. Lab PM: Whitmire, Cheyenne R  
 Client Contact: Joju Abraham Phone: cheyenne.whitmire@testamericainc.com  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metal - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	TDS - SM 2540C : Cl <sub>2</sub> , F <sub>2</sub> , SO <sub>4</sub> - EPA 300	Radium 226 & 228 - SW-846 9315 & 9320	400-129966 COC	QR Code	Total Number of Containers	Special Instructions/Note:
GWA-4	11/10/16	1145	G	W	N	N	1	1	1	3			
GWA-2	11/10/16	1500	G	WG	N	N	1	1	1	3			

**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: *Will V. Sig* Date/Time: 11/11/16 1440 Company: ERM  
 Relinquished by: *[Signature]* Date/Time: 11/11/16 1530 Company: *VA*  
 Relinquished by: *[Signature]* Date/Time: 11/12/16 0850 Company: *MA-PAW*

Special Instructions/QC Requirements: Please cc: Maria Padilla and Heath McCorkle with results  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Method of Shipment: \_\_\_\_\_  
 Received by: *[Signature]* Date/Time: 11/11/16 1440 Company: *PA*  
 Received by: *[Signature]* Date/Time: 11/12/16 0850 Company: *MA-PAW*  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 3.2°C IL6  
 Custody Seals Intact:  Yes  No





## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-129966-1  
SDG Number: Gypsum Landfill

**Login Number: 129966**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	745941, 745960
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	0.0°C IR-6, 3.2°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 Wansley

TestAmerica Job ID: 400-129966-1  
SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-129966-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/19/2016 5:34:06 PM

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### 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 Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

**Job ID: 400-129966-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-129966-2

#### RAD

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-279788: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-28 (400-129966-1), GWA-4 (400-129966-2) and GWA-2 (400-129966-3). 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 160-279778: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-28 (400-129966-1), GWA-4 (400-129966-2) and GWA-2 (400-129966-3). 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 Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129966-1	GWA-28	Water	11/09/16 12:10	11/11/16 09:53
400-129966-2	GWA-4	Water	11/10/16 11:45	11/12/16 08:50
400-129966-3	GWA-2	Water	11/10/16 15:00	11/12/16 08:50

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 11/09/16 12:10**

**Date Received: 11/11/16 09:53**

**Lab Sample ID: 400-129966-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0745	U	0.248	0.248	1.00	0.542	pCi/L	11/17/16 11:15	12/16/16 06:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	49.9		40 - 110					11/17/16 11:15	12/16/16 06:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0153	U	0.391	0.391	1.00	0.704	pCi/L	11/17/16 12:22	12/15/16 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	49.9		40 - 110					11/17/16 12:22	12/15/16 16:05	1
Y Carrier	86.4		40 - 110					11/17/16 12:22	12/15/16 16:05	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	-0.0899	U	0.464	0.464	5.00	0.704	pCi/L		12/16/16 18:48	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 11/10/16 11:45**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.587		0.321	0.325	1.00	0.424	pCi/L	11/17/16 11:15	12/16/16 06:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					11/17/16 11:15	12/16/16 06:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.995		0.299	0.313	1.00	0.382	pCi/L	11/17/16 12:22	12/15/16 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					11/17/16 12:22	12/15/16 16:05	1
Y Carrier	89.0		40 - 110					11/17/16 12:22	12/15/16 16:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.58		0.439	0.451	5.00	0.424	pCi/L		12/16/16 18:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 11/10/16 15:00**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.234	U	0.211	0.212	1.00	0.316	pCi/L	11/17/16 11:15	12/16/16 06:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					11/17/16 11:15	12/16/16 06:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.235	U	0.238	0.239	1.00	0.386	pCi/L	11/17/16 12:22	12/15/16 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					11/17/16 12:22	12/15/16 16:05	1
Y Carrier	86.7		40 - 110					11/17/16 12:22	12/15/16 16:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.469</b>		0.318	0.319	5.00	0.386	pCi/L		12/16/16 18:48	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 11/09/16 12:10**

**Date Received: 11/11/16 09:53**

**Lab Sample ID: 400-129966-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279778	11/17/16 11:15	AS	TAL SL
Total/NA	Analysis	9315		1	284274	12/16/16 06:58	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279788	11/17/16 12:22	AS	TAL SL
Total/NA	Analysis	9320		1	284144	12/15/16 16:05	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

**Client Sample ID: GWA-4**

**Date Collected: 11/10/16 11:45**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279778	11/17/16 11:15	AS	TAL SL
Total/NA	Analysis	9315		1	284274	12/16/16 06:58	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279788	11/17/16 12:22	AS	TAL SL
Total/NA	Analysis	9320		1	284144	12/15/16 16:05	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

**Client Sample ID: GWA-2**

**Date Collected: 11/10/16 15:00**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-129966-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279778	11/17/16 11:15	AS	TAL SL
Total/NA	Analysis	9315		1	284274	12/16/16 06:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279788	11/17/16 12:22	AS	TAL SL
Total/NA	Analysis	9320		1	284144	12/15/16 16:05	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	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 Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 279778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total/NA	Water	PrecSep-21	
400-129966-2	GWA-4	Total/NA	Water	PrecSep-21	
400-129966-3	GWA-2	Total/NA	Water	PrecSep-21	
MB 160-279778/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-279778/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-279778/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 279788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129966-1	GWA-28	Total/NA	Water	PrecSep_0	
400-129966-2	GWA-4	Total/NA	Water	PrecSep_0	
400-129966-3	GWA-2	Total/NA	Water	PrecSep_0	
MB 160-279788/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-279788/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-279788/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-279778/1-A**  
**Matrix: Water**  
**Analysis Batch: 284171**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 279778**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1262	U	0.226	0.226	1.00	0.394	pCi/L	11/17/16 11:15	12/16/16 06:52	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					11/17/16 11:15	12/16/16 06:52	1

**Lab Sample ID: LCS 160-279778/2-A**  
**Matrix: Water**  
**Analysis Batch: 284171**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 279778**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	12.62		1.56	1.00	0.380	pCi/L	114	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	85.8		40 - 110						

**Lab Sample ID: LCSD 160-279778/3-A**  
**Matrix: Water**  
**Analysis Batch: 284171**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 279778**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.1	14.04		1.70	1.00	0.325	pCi/L	127	68 - 137	0.44	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	84.9		40 - 110								

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

**Lab Sample ID: MB 160-279788/1-A**  
**Matrix: Water**  
**Analysis Batch: 284110**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 279788**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2927	U	0.231	0.232	1.00	0.363	pCi/L	11/17/16 12:22	12/15/16 16:10	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					11/17/16 12:22	12/15/16 16:10	1
Y Carrier	89.7		40 - 110					11/17/16 12:22	12/15/16 16:10	1

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-279788/2-A**  
**Matrix: Water**  
**Analysis Batch: 284110**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 279788**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	16.57		1.75	1.00	0.387	pCi/L	117	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.8		40 - 110
Y Carrier	90.8		40 - 110

**Lab Sample ID: LCSD 160-279788/3-A**  
**Matrix: Water**  
**Analysis Batch: 284110**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 279788**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.1	16.07		1.71	1.00	0.355	pCi/L	114	56 - 140	0.15	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.9		40 - 110
Y Carrier	91.6		40 - 110

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: Taylor Payne T.P.  
 Lab PM: Whitmire, Chyenenne R  
 Client Contact: Joju Abraham  
 E-Mail: chyenenne.whitmire@testamericainc.com  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7299  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2640C ; Cl <sup>-</sup> , SO <sub>4</sub> - EPA 300	Metals - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Analysis Requested	Carrier Tracking No(s)	COC No:
GWA-28	11/9/16	1210	G	W	N	X	1	1	1			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2640C ; Cl <sup>-</sup> , SO <sub>4</sub> - EPA 300	Metals - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Analysis Requested	Carrier Tracking No(s)	COC No:

**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: 11/9/16 13:45  
 Relinquished by: \_\_\_\_\_ Date/Time: 11/9/16 14:50  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements: Please cc: Maria Padilla and Heath McCorkle with results

Method of Shipment: \_\_\_\_\_  
 Date/Time: 11/10/16 13:45  
 Date/Time: 11/11/16 9:53  
 Date/Time: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C IR-6



681-Atlanta



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**Chain of Custody Record**

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 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metal - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	TDS - SM 2540C : Cl <sub>2</sub> , F <sub>2</sub> , SO <sub>4</sub> - EPA 300	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWA-4	11/10/16	1145	G	W	N	N	1	1	1	3	
GWA-2	11/10/16	1500	G	WG	N	N	1	1	1	3	

**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: *Will V. Sig* Date/Time: 11/11/16 1440 Company: ERM  
 Relinquished by: *[Signature]* Date/Time: 11/11/16 1530 Company: VTB  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 3.2°C IL6

681-Atlanta



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-129966-2  
SDG Number: Gypsum Landfill

**Login Number: 129966**

**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	745941, 745960
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	0.0°C IR-6, 3.2°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 <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 Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	12-31-16
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	06-30-17
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-129966-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

# 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: 400-130024-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/1/2016 10:46:17 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

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**Job ID: 400-130024-1**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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### Job Narrative 400-130024-1

#### Metals

Method(s) 6020: The method blank for preparation batch 331915 and analytical batch 332046 contained Arsenic and Selenium 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 native sample, post-digestion spike (PDS), matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 331915 and analytical batch 332046 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Boron and Calcium in the PDS/MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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# Detection Summary

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
 SDG: Gypsum Landfill

## Client Sample ID: GWA-1

## Lab Sample ID: 400-130024-1

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
Barium	0.0095		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.59		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-130024-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.97	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	3.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0057		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	3.3		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	0.0093		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	56		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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130024-1	GWA-1	Water	11/11/16 10:35	11/12/16 08:50
400-130024-2	GWC-27	Water	11/11/16 13:25	11/12/16 08:50

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 11/11/16 10:35**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			11/25/16 15:10	1
Fluoride	<0.082		0.20	0.082	mg/L			11/25/16 15:10	1
Sulfate	<0.70		1.0	0.70	mg/L			11/25/16 15:10	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		11/21/16 09:23	11/21/16 19:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 09:23	11/21/16 19:39	5
<b>Barium</b>	<b>0.0095</b>		0.0025	0.00049	mg/L		11/21/16 09:23	11/21/16 19:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 09:23	11/21/16 19:39	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 09:23	11/21/16 19:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 09:23	11/21/16 19:39	5
<b>Calcium</b>	<b>0.59</b>		0.25	0.13	mg/L		11/21/16 09:23	11/21/16 19:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 09:23	11/21/16 19:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 09:23	11/21/16 19:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 09:23	11/21/16 19:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 09:23	11/21/16 19:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 09:23	11/21/16 19:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 09:23	11/21/16 19:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 09:23	11/21/16 19:39	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		11/15/16 15:29	11/17/16 12:53	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>4.0</b>	<b>J</b>	5.0	3.4	mg/L			11/16/16 17:01	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**  
**Date Collected: 11/11/16 13:25**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.97	J	1.0	0.89	mg/L			11/25/16 16:18	1
Fluoride	1.2		0.20	0.082	mg/L			11/25/16 16:18	1
Sulfate	3.0		1.0	0.70	mg/L			11/25/16 16:18	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		11/21/16 09:23	11/21/16 19:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 09:23	11/21/16 19:43	5
Barium	0.017		0.0025	0.00049	mg/L		11/21/16 09:23	11/21/16 19:43	5
Beryllium	0.0057		0.0025	0.00034	mg/L		11/21/16 09:23	11/21/16 19:43	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 09:23	11/21/16 19:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 09:23	11/21/16 19:43	5
Calcium	3.3		0.25	0.13	mg/L		11/21/16 09:23	11/21/16 19:43	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 09:23	11/21/16 19:43	5
Cobalt	0.0018	J	0.0025	0.00040	mg/L		11/21/16 09:23	11/21/16 19:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 09:23	11/21/16 19:43	5
Lithium	0.0093		0.0050	0.0032	mg/L		11/21/16 09:23	11/21/16 19:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 09:23	11/21/16 19:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 09:23	11/21/16 19:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 09:23	11/21/16 19:43	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		11/15/16 15:29	11/17/16 12:55	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			11/16/16 17:01	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

## 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.
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.

### General Chemistry

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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**

**Date Collected: 11/11/16 10:35**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	332556	11/25/16 15:10	KH1	TAL PEN
Total Recoverable	Prep	3005A			331915	11/21/16 09:23	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332046	11/21/16 19:39	AJR	TAL PEN
Total/NA	Prep	7470A			331080	11/15/16 15:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331511	11/17/16 12:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331377	11/16/16 17:01	RRC	TAL PEN

**Client Sample ID: GWC-27**

**Date Collected: 11/11/16 13:25**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	332556	11/25/16 16:18	KH1	TAL PEN
Total Recoverable	Prep	3005A			331915	11/21/16 09:23	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332046	11/21/16 19:43	AJR	TAL PEN
Total/NA	Prep	7470A			331080	11/15/16 15:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331511	11/17/16 12:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331377	11/16/16 17:01	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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 332556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total/NA	Water	300.0	
400-130024-2	GWC-27	Total/NA	Water	300.0	
MB 400-332556/3	Method Blank	Total/NA	Water	300.0	
LCS 400-332556/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-332556/5	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130413-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
400-130413-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 331080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total/NA	Water	7470A	
400-130024-2	GWC-27	Total/NA	Water	7470A	
MB 400-331080/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-331080/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130050-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-130050-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 331511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total/NA	Water	7470A	331080
400-130024-2	GWC-27	Total/NA	Water	7470A	331080
MB 400-331080/14-A	Method Blank	Total/NA	Water	7470A	331080
LCS 400-331080/15-A	Lab Control Sample	Total/NA	Water	7470A	331080
400-130050-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	331080
400-130050-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	331080

### Prep Batch: 331915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total Recoverable	Water	3005A	
400-130024-2	GWC-27	Total Recoverable	Water	3005A	
MB 400-331915/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-331915/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130004-A-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130004-A-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 332046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total Recoverable	Water	6020	331915
400-130024-2	GWC-27	Total Recoverable	Water	6020	331915
MB 400-331915/1-A ^5	Method Blank	Total Recoverable	Water	6020	331915
LCS 400-331915/2-A	Lab Control Sample	Total Recoverable	Water	6020	331915
400-130004-A-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	331915
400-130004-A-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	331915

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

## General Chemistry

### Analysis Batch: 331377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total/NA	Water	SM 2540C	
400-130024-2	GWC-27	Total/NA	Water	SM 2540C	
MB 400-331377/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331377/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130023-A-2 DU	Duplicate	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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-332556/3**  
**Matrix: Water**  
**Analysis Batch: 332556**

**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			11/25/16 11:44	1
Fluoride	<0.082		0.20	0.082	mg/L			11/25/16 11:44	1
Sulfate	<0.70		1.0	0.70	mg/L			11/25/16 11:44	1

**Lab Sample ID: LCS 400-332556/4**  
**Matrix: Water**  
**Analysis Batch: 332556**

**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	10.1		mg/L		101	90 - 110
Sulfate	10.0	9.83		mg/L		98	90 - 110

**Lab Sample ID: LCSD 400-332556/5**  
**Matrix: Water**  
**Analysis Batch: 332556**

**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	9.99		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	0	15
Sulfate	10.0	9.75		mg/L		98	90 - 110	1	15

**Lab Sample ID: 400-130413-A-2 MS**  
**Matrix: Water**  
**Analysis Batch: 332556**

**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	150		500	662		mg/L		102	80 - 120
Fluoride	<4.1		500	516		mg/L		103	80 - 120
Sulfate	590		500	1050		mg/L		93	80 - 120

**Lab Sample ID: 400-130413-A-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 332556**

**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	150		500	662		mg/L		102	80 - 120	0	20
Fluoride	<4.1		500	521		mg/L		104	80 - 120	1	20
Sulfate	590		500	1060		mg/L		93	80 - 120	0	20

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

**Lab Sample ID: MB 400-331915/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332046**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331915**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/21/16 09:23	11/21/16 15:17	5
Arsenic	0.000520	J	0.0013	0.00046	mg/L		11/21/16 09:23	11/21/16 15:17	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-331915/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332046**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331915**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		11/21/16 09:23	11/21/16 15:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 09:23	11/21/16 15:17	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 09:23	11/21/16 15:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 09:23	11/21/16 15:17	5
Calcium	<0.13		0.25	0.13	mg/L		11/21/16 09:23	11/21/16 15:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 09:23	11/21/16 15:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 09:23	11/21/16 15:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 09:23	11/21/16 15:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 09:23	11/21/16 15:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 09:23	11/21/16 15:17	5
Selenium	0.000470	J	0.0013	0.00024	mg/L		11/21/16 09:23	11/21/16 15:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 09:23	11/21/16 15:17	5

**Lab Sample ID: LCS 400-331915/2-A**  
**Matrix: Water**  
**Analysis Batch: 332046**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331915**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Arsenic	0.0500	0.0541		mg/L		108	80 - 120
Barium	0.0500	0.0488		mg/L		98	80 - 120
Beryllium	0.0500	0.0488		mg/L		98	80 - 120
Boron	0.100	0.107		mg/L		107	80 - 120
Cadmium	0.0500	0.0518		mg/L		104	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120
Cobalt	0.0500	0.0491		mg/L		98	80 - 120
Lead	0.0500	0.0476		mg/L		95	80 - 120
Lithium	0.0500	0.0525		mg/L		105	80 - 120
Molybdenum	0.0500	0.0510		mg/L		102	80 - 120
Selenium	0.0500	0.0510		mg/L		102	80 - 120
Thallium	0.0100	0.0100		mg/L		100	80 - 120

**Lab Sample ID: 400-130004-A-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332046**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331915**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0532		mg/L		106	75 - 125
Arsenic	0.011	B	0.0500	0.0635		mg/L		104	75 - 125
Barium	0.021		0.0500	0.0679		mg/L		93	75 - 125
Beryllium	0.00047	J	0.0500	0.0481		mg/L		95	75 - 125
Boron	4.3	E	0.100	4.69	E 4	mg/L		347	75 - 125
Cadmium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125
Calcium	110		5.00	108	4	mg/L		48	75 - 125
Chromium	<0.0011		0.0500	0.0475		mg/L		95	75 - 125
Cobalt	0.0085		0.0500	0.0542		mg/L		91	75 - 125
Lead	0.00092	J	0.0500	0.0487		mg/L		96	75 - 125
Lithium	0.0095		0.0500	0.0638		mg/L		109	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130004-A-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332046**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331915**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0495		mg/L		99	75 - 125
Selenium	0.013	B	0.0500	0.0634		mg/L		100	75 - 125
Thallium	0.00028	J	0.0100	0.0104		mg/L		101	75 - 125

**Lab Sample ID: 400-130004-A-1-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 332046**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331915**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0519		mg/L		104	75 - 125	2	20
Arsenic	0.011	B	0.0500	0.0644		mg/L		106	75 - 125	1	20
Barium	0.021		0.0500	0.0681		mg/L		94	75 - 125	0	20
Beryllium	0.00047	J	0.0500	0.0485		mg/L		96	75 - 125	1	20
Boron	4.3	E	0.100	4.68	E 4	mg/L		344	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125	4	20
Calcium	110		5.00	108	4	mg/L		66	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0494		mg/L		99	75 - 125	4	20
Cobalt	0.0085		0.0500	0.0553		mg/L		94	75 - 125	2	20
Lead	0.00092	J	0.0500	0.0492		mg/L		97	75 - 125	1	20
Lithium	0.0095		0.0500	0.0639		mg/L		109	75 - 125	0	20
Molybdenum	<0.00085		0.0500	0.0514		mg/L		103	75 - 125	4	20
Selenium	0.013	B	0.0500	0.0626		mg/L		99	75 - 125	1	20
Thallium	0.00028	J	0.0100	0.0106		mg/L		103	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-331080/14-A**  
**Matrix: Water**  
**Analysis Batch: 331511**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 331080**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/15/16 08:53	11/17/16 12:25	1

**Lab Sample ID: LCS 400-331080/15-A**  
**Matrix: Water**  
**Analysis Batch: 331511**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 331080**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000934		mg/L		93	80 - 120

**Lab Sample ID: 400-130050-A-3-B MS**  
**Matrix: Water**  
**Analysis Batch: 331511**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 331080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00182		mg/L		90	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-1  
 SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130050-A-3-C MSD**  
**Matrix: Water**  
**Analysis Batch: 331511**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 331080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00172		mg/L		85	80 - 120	6	20

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

**Lab Sample ID: MB 400-331377/1**  
**Matrix: Water**  
**Analysis Batch: 331377**

**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			11/16/16 17:01	1

**Lab Sample ID: LCS 400-331377/2**  
**Matrix: Water**  
**Analysis Batch: 331377**

**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: 400-130023-A-2 DU**  
**Matrix: Water**  
**Analysis Batch: 331377**

**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	310		304		mg/L		0.7	5

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Lab P#: \_\_\_\_\_  
 Carrier Tracking No(s): \_\_\_\_\_  
 Lab P#: \_\_\_\_\_  
 Whitmire, Cheyenne R.  
 Taylor Payne T.P.  
 E-Mail: cheyenne.whitmire@testamericainc.com  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Due Date Requested: \_\_\_\_\_  
 TAT Requested (days): \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 IWO #: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 SSOW#: \_\_\_\_\_

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waterfall, A=air)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	TDS - SM 2540C; Cl <sup>-</sup> , SO <sub>4</sub> <sup>-</sup> - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radlum 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWA-1	11/11/16	1035	G	W	N	X	1	1	1	3	
GWC-27	11/11/16	1325	G	W	N		1	1	1	3	

**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: 11/11/16 10:15  
 Relinquished by: *Jim Morrison* Date/Time: 11/12/16 8:50  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Company: ERM Company Company Company  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C IRG

Custody Seals Intact:  Yes  No  Custody Seal No.: \_\_\_\_\_

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130024-1  
SDG Number: Gypsum Landfill

**Login Number: 130024**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	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 Wansley

TestAmerica Job ID: 400-130024-1  
SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130024-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

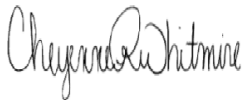
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/19/2016 5:39:10 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

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Have a Question?



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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

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**Job ID: 400-130024-2**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-130024-2**

**RAD**

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-279788: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-1 (400-130024-1) and GWC-27 (400-130024-2). 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 160-279778: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWA-1 (400-130024-1) and GWC-27 (400-130024-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130024-1	GWA-1	Water	11/11/16 10:35	11/12/16 08:50
400-130024-2	GWC-27	Water	11/11/16 13:25	11/12/16 08:50

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 11/11/16 10:35**  
**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.164	U	0.225	0.225	1.00	0.380	pCi/L	11/17/16 11:15	12/16/16 06:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					11/17/16 11:15	12/16/16 06:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.122	U	0.247	0.247	1.00	0.425	pCi/L	11/17/16 12:22	12/15/16 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					11/17/16 12:22	12/15/16 16:05	1
Y Carrier	86.4		40 - 110					11/17/16 12:22	12/15/16 16:05	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	0.286	U	0.334	0.335	5.00	0.425	pCi/L		12/16/16 18:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-130024-2**

**Date Collected: 11/11/16 13:25**

**Matrix: Water**

**Date Received: 11/12/16 08:50**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.94		0.546	0.573	1.00	0.502	pCi/L	11/17/16 11:15	12/16/16 06:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	59.8		40 - 110					11/17/16 11:15	12/16/16 06:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.60		0.425	0.449	1.00	0.513	pCi/L	11/17/16 12:22	12/15/16 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	59.8		40 - 110					11/17/16 12:22	12/15/16 16:05	1
Y Carrier	88.2		40 - 110					11/17/16 12:22	12/15/16 16:05	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	3.54		0.692	0.728	5.00	0.513	pCi/L		12/16/16 18:48	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**

**Date Collected: 11/11/16 10:35**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279778	11/17/16 11:15	AS	TAL SL
Total/NA	Analysis	9315		1	284274	12/16/16 06:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279788	11/17/16 12:22	AS	TAL SL
Total/NA	Analysis	9320		1	284144	12/15/16 16:05	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

**Client Sample ID: GWC-27**

**Date Collected: 11/11/16 13:25**

**Date Received: 11/12/16 08:50**

**Lab Sample ID: 400-130024-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279778	11/17/16 11:15	AS	TAL SL
Total/NA	Analysis	9315		1	284274	12/16/16 06:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279788	11/17/16 12:22	AS	TAL SL
Total/NA	Analysis	9320		1	284144	12/15/16 16:05	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	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 Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 279778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total/NA	Water	PrecSep-21	
400-130024-2	GWC-27	Total/NA	Water	PrecSep-21	
MB 160-279778/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-279778/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-279778/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 279788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130024-1	GWA-1	Total/NA	Water	PrecSep_0	
400-130024-2	GWC-27	Total/NA	Water	PrecSep_0	
MB 160-279788/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-279788/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-279788/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-279778/1-A**  
**Matrix: Water**  
**Analysis Batch: 284171**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 279778**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1262	U	0.226	0.226	1.00	0.394	pCi/L	11/17/16 11:15	12/16/16 06:52	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	84.6		40 - 110	11/17/16 11:15	12/16/16 06:52	1				

**Lab Sample ID: LCS 160-279778/2-A**  
**Matrix: Water**  
**Analysis Batch: 284171**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 279778**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	12.62		1.56	1.00	0.380	pCi/L	114	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	85.8		40 - 110	11/17/16 11:15	12/16/16 06:52	1			

**Lab Sample ID: LCSD 160-279778/3-A**  
**Matrix: Water**  
**Analysis Batch: 284171**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 279778**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.1	14.04		1.70	1.00	0.325	pCi/L	127	68 - 137	0.44	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed						
Ba Carrier	84.9		40 - 110	11/17/16 11:15	12/16/16 06:52	1					

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

**Lab Sample ID: MB 160-279788/1-A**  
**Matrix: Water**  
**Analysis Batch: 284110**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 279788**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2927	U	0.231	0.232	1.00	0.363	pCi/L	11/17/16 12:22	12/15/16 16:10	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	84.6		40 - 110	11/17/16 12:22	12/15/16 16:10	1				
Y Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
Y Carrier	89.7		40 - 110	11/17/16 12:22	12/15/16 16:10	1				

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
 SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-279788/2-A**  
**Matrix: Water**  
**Analysis Batch: 284110**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 279788**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	16.57		1.75	1.00	0.387	pCi/L	117	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.8		40 - 110
Y Carrier	90.8		40 - 110

**Lab Sample ID: LCSD 160-279788/3-A**  
**Matrix: Water**  
**Analysis Batch: 284110**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 279788**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.1	16.07		1.71	1.00	0.355	pCi/L	114	56 - 140	0.15	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.9		40 - 110
Y Carrier	91.6		40 - 110

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** Taylor Payne T.P.  
**Lab PM:** Whitmire, Chyanne R  
**Carrier Tracking No(s):**  
**Phone:**  
**E-Mail:** chyanne.whitmire@testamericainc.com

**COC No.:**  
**Page:**  
**Job #:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waterfall, A=air)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	TDS - SM 2540C; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radlum 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:	Analysis Requested	
												Preservation Code	Other
GWA-1	11/11/16	1035	G	W	N	X				3		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDA Other:	
GWC-27	11/11/16	1325	G	W	N					3			



400-130024 COC

**Possible Hazard Identification**  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

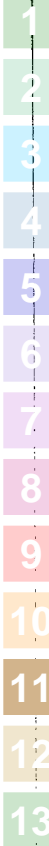
**Empty Kit Relinquished by:**  
 Relinquished by: *[Signature]* Date: 11/11/16  
 Relinquished by: *Jim Morrison* Date: 11/16/16  
 Relinquished by: Date: 11/16/16

**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: Please cc: Maria Padilla and Heath McCorkle with results

**Method of Shipment:**  
 Received by: *[Signature]* Date/Time: 11/12/16 8:50  
 Received by: *[Signature]* Date/Time: 11/12/16 8:50  
 Received by: *[Signature]* Date/Time: 11/12/16 8:50  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C IR6

**Custody Seal No.:**  
 Yes  No



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130024-2  
SDG Number: Gypsum Landfill

**Login Number: 130024**

**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.	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	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 <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 Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	12-31-16
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	06-30-17
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130024-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

# 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: 400-130175-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/7/2016 2:38:11 PM

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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 Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

**Job ID: 400-130175-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-130175-1

#### Metals

Method(s) 6020: The internal standard Lithium-6 recovered below in house recommended recovery limits for (CCB 400-332176/178), (CCB 400-332176/79), (CCV 400-332176/175) and (CCV 400-332176/76). However, the internal standard recoveries meet the criteria stated in method 6020.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 331936 and analytical batch 332176 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 native sample and post-digestion spike (PDS) associated with preparation batch 331936 and analytical batch 332176 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Lithium in the PDS was above the instrument calibration range. The data have been reported and qualified.

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## Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

### Client Sample ID: GWC-26

### Lab Sample ID: 400-130175-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00061	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

### Client Sample ID: GWC-30

### Lab Sample ID: 400-130175-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		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	0.0070		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

### Client Sample ID: FERB-1

### Lab Sample ID: 400-130175-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130175-1	GWC-26	Water	11/14/16 14:16	11/16/16 08:51
400-130175-2	GWC-30	Water	11/14/16 15:00	11/16/16 08:51
400-130175-3	FERB-1	Water	11/14/16 16:00	11/16/16 08:51

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**  
**Date Collected: 11/14/16 14:16**  
**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.8</b>		1.0	0.89	mg/L			12/01/16 03:15	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 03:15	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 03:15	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		11/21/16 13:20	11/22/16 16:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 16:50	5
<b>Barium</b>	<b>0.036</b>		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 16:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 16:50	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 16:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 16:50	5
<b>Calcium</b>	<b>1.8</b>		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 16:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 16:50	5
<b>Cobalt</b>	<b>0.00061</b>	<b>J</b>	0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 16:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 16:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 16:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 16:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 16:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 16:50	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		11/21/16 14:03	11/23/16 14:11	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>40</b>		5.0	3.4	mg/L			11/17/16 17:11	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**

**Date Collected: 11/14/16 15:00**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			12/01/16 03:37	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 03:37	1
<b>Sulfate</b>	<b>1.1</b>		1.0	0.70	mg/L			12/01/16 03:37	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		11/21/16 13:20	11/22/16 16:54	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 16:54	5
<b>Barium</b>	<b>0.0070</b>		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 16:54	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 16:54	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 16:54	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 16:54	5
<b>Calcium</b>	<b>2.8</b>		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 16:54	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 16:54	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 16:54	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 16:54	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 16:54	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 16:54	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 16:54	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 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		11/21/16 14:03	11/23/16 14:12	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>38</b>		5.0	3.4	mg/L			11/17/16 17:11	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Date Collected: 11/14/16 16:00**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-3**

**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			12/01/16 04:00	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 04:00	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 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		11/21/16 13:20	11/22/16 16:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 16:59	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 16:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 16:59	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 16:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 16:59	5
Calcium	<0.13		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 16:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 16:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 16:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 16:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 16:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 16:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 16:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 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		11/21/16 14:03	11/23/16 14:14	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			11/17/16 17:11	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

## Qualifiers

### 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, 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 Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 11/14/16 14:16**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 03:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 16:50	AJR	TAL PEN
Total/NA	Prep	7470A			331928	11/21/16 14:03	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332404	11/23/16 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331538	11/17/16 17:11	TET	TAL PEN

**Client Sample ID: GWC-30**

**Date Collected: 11/14/16 15:00**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 03:37	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 16:54	AJR	TAL PEN
Total/NA	Prep	7470A			331928	11/21/16 14:03	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332404	11/23/16 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331538	11/17/16 17:11	TET	TAL PEN

**Client Sample ID: FERB-1**

**Date Collected: 11/14/16 16:00**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 04:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 16:59	AJR	TAL PEN
Total/NA	Prep	7470A			331928	11/21/16 14:03	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332404	11/23/16 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331538	11/17/16 17:11	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 Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total/NA	Water	300.0	
400-130175-2	GWC-30	Total/NA	Water	300.0	
400-130175-3	FERB-1	Total/NA	Water	300.0	
MB 400-333261/86	Method Blank	Total/NA	Water	300.0	
LCS 400-333261/87	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-333261/88	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130029-A-16 MS	Matrix Spike	Total/NA	Water	300.0	
400-130029-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 331928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total/NA	Water	7470A	
400-130175-2	GWC-30	Total/NA	Water	7470A	
400-130175-3	FERB-1	Total/NA	Water	7470A	
MB 400-331928/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-331928/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130358-J-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-130358-J-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 331936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total Recoverable	Water	3005A	
400-130175-2	GWC-30	Total Recoverable	Water	3005A	
400-130175-3	FERB-1	Total Recoverable	Water	3005A	
MB 400-331936/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-331936/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130078-F-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130078-F-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 332176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total Recoverable	Water	6020	331936
400-130175-2	GWC-30	Total Recoverable	Water	6020	331936
400-130175-3	FERB-1	Total Recoverable	Water	6020	331936
MB 400-331936/1-A ^5	Method Blank	Total Recoverable	Water	6020	331936
LCS 400-331936/2-A	Lab Control Sample	Total Recoverable	Water	6020	331936
400-130078-F-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	331936
400-130078-F-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	331936

### Analysis Batch: 332404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total/NA	Water	7470A	331928
400-130175-2	GWC-30	Total/NA	Water	7470A	331928
400-130175-3	FERB-1	Total/NA	Water	7470A	331928
MB 400-331928/14-A	Method Blank	Total/NA	Water	7470A	331928
LCS 400-331928/15-A	Lab Control Sample	Total/NA	Water	7470A	331928
400-130358-J-1-B MS	Matrix Spike	Total/NA	Water	7470A	331928
400-130358-J-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	331928

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

## General Chemistry

### Analysis Batch: 331538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total/NA	Water	SM 2540C	
400-130175-2	GWC-30	Total/NA	Water	SM 2540C	
400-130175-3	FERB-1	Total/NA	Water	SM 2540C	
MB 400-331538/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331538/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130075-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333261/86**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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			11/30/16 23:26	1
Fluoride	<0.082		0.20	0.082	mg/L			11/30/16 23:26	1
Sulfate	<0.70		1.0	0.70	mg/L			11/30/16 23:26	1

**Lab Sample ID: LCS 400-333261/87**  
**Matrix: Water**  
**Analysis Batch: 333261**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.96		mg/L		100	90 - 110
Fluoride	10.0	9.63		mg/L		96	90 - 110
Sulfate	10.0	9.46		mg/L		95	90 - 110

**Lab Sample ID: LCSD 400-333261/88**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	2	15
Fluoride	10.0	9.68		mg/L		97	90 - 110	1	15
Sulfate	10.0	9.78		mg/L		98	90 - 110	3	15

**Lab Sample ID: 400-130029-A-16 MS**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	14.0		mg/L		105	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	14		10.0	24.6		mg/L		105	80 - 120

**Lab Sample ID: 400-130029-A-16 MSD**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	14.0		mg/L		105	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	1	20
Sulfate	14		10.0	24.6		mg/L		105	80 - 120	0	20

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

**Lab Sample ID: MB 400-331936/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/21/16 13:20	11/22/16 14:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 14:25	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-331936/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 14:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 14:25	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 14:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 14:25	5
Calcium	<0.13		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 14:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 14:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 14:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 14:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 14:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 14:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 14:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 14:25	5

**Lab Sample ID: LCS 400-331936/2-A**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0490		mg/L		98	80 - 120
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.0982		mg/L		98	80 - 120
Cadmium	0.0500	0.0514		mg/L		103	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0489		mg/L		98	80 - 120
Cobalt	0.0500	0.0504		mg/L		101	80 - 120
Lead	0.0500	0.0489		mg/L		98	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.0500	0.0519		mg/L		104	80 - 120
Selenium	0.0500	0.0511		mg/L		102	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

**Lab Sample ID: 400-130078-F-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0509		mg/L		102	75 - 125
Arsenic	0.14		0.0500	0.190		mg/L		106	75 - 125
Barium	0.046		0.0500	0.0944		mg/L		96	75 - 125
Beryllium	<0.00034		0.0500	0.0481		mg/L		96	75 - 125
Boron	0.79		0.100	0.922	4	mg/L		130	75 - 125
Cadmium	<0.00034		0.0500	0.0511		mg/L		102	75 - 125
Calcium	24		5.00	29.3	4	mg/L		109	75 - 125
Chromium	0.0032		0.0500	0.0534		mg/L		101	75 - 125
Cobalt	<0.00040		0.0500	0.0519		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0499		mg/L		100	75 - 125
Lithium	0.50		0.0500	0.544	4	mg/L		97	75 - 125

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130078-F-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.035		0.0500	0.0880		mg/L		107	75 - 125
Selenium	0.00063	J F1	0.0500	0.0154	F1	mg/L		30	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

**Lab Sample ID: 400-130078-F-1-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0512		mg/L		102	75 - 125	0	20
Arsenic	0.14		0.0500	0.185		mg/L		98	75 - 125	2	20
Barium	0.046		0.0500	0.0942		mg/L		96	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0490		mg/L		98	75 - 125	2	20
Boron	0.79		0.100	0.937	4	mg/L		145	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125	0	20
Calcium	24		5.00	29.0	4	mg/L		103	75 - 125	1	20
Chromium	0.0032		0.0500	0.0532		mg/L		100	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0511		mg/L		102	75 - 125	2	20
Lead	<0.00035		0.0500	0.0497		mg/L		99	75 - 125	0	20
Lithium	0.50		0.0500	0.545	4	mg/L		100	75 - 125	0	20
Molybdenum	0.035		0.0500	0.0865		mg/L		104	75 - 125	2	20
Selenium	0.00063	J F1	0.0500	0.0143	F1	mg/L		27	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-331928/14-A**  
**Matrix: Water**  
**Analysis Batch: 332404**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 331928**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/21/16 09:53	11/23/16 13:28	1

**Lab Sample ID: LCS 400-331928/15-A**  
**Matrix: Water**  
**Analysis Batch: 332404**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 331928**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000952		mg/L		95	80 - 120

**Lab Sample ID: 400-130358-J-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 332404**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 331928**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00188		mg/L		93	80 - 120

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# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-1  
 SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130358-J-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 332404**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 331928**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00177		mg/L		88	80 - 120	6	20

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

**Lab Sample ID: MB 400-331538/1**  
**Matrix: Water**  
**Analysis Batch: 331538**

**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			11/17/16 17:11	1

**Lab Sample ID: LCS 400-331538/2**  
**Matrix: Water**  
**Analysis Batch: 331538**

**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	264		mg/L		90	78 - 122

**Lab Sample ID: 400-130075-C-1 DU**  
**Matrix: Water**  
**Analysis Batch: 331538**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	52		52.0		mg/L		0	5



# Chain of Custody Record

Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671



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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sampler: Myles Rogers MR, Andreas Shoreffits AS  
 Lab PIV: Whitmire, Cheyenne R  
 Carrier Tracking No(s):  
 E-Mail: cheyenne.whitmire@testamericainc.com

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Sediment, Oil)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)							
GWC-26	11/14/16	1416	G	W	N	N	1	1	1	1	3		
GWC-30	11/14/16	1500	G	W	N	N	1	1	1	1	3		
FERB-1	11/14/16	1600	G	W	N	N	1	1	1	1	3		



400-130175 COC

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify)  
 Empty Kit Relinquished by:  
 Relinquished by: [Signature]  
 Relinquished by: [Signature]  
 Relinquished by: [Signature]

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: Please cc: Maria Padilla and Heath McCorkle with results

Method of Shipment:  
 Received by: [Signature] Date/Time: 11/15/16 1515 Company: ERM  
 Received by: [Signature] Date/Time: 11/15/16 1700 Company: [Signature]  
 Received by: [Signature] Date/Time: 11/16/16 851 Company: TA

Cooler Temperature(s): 3.8°C IRG  
 Custody Seal No.:



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130175-1  
SDG Number: Gypsum Landfill

**Login Number: 130175**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	745964
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-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 Wansley

TestAmerica Job ID: 400-130175-1  
 SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130175-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/29/2016 8:05:42 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

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**Job ID: 400-130175-2**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-130175-2**

**RAD**

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-280883: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with GWC-26 (400-130175-1), GWC-30 (400-130175-2) and FERB-1 (400-130175-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were created instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-280877: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with GWC-26 (400-130175-1), GWC-30 (400-130175-2) and FERB-1 (400-130175-3) . A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were created instead to demonstrate batch precision.



# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130175-1	GWC-26	Water	11/14/16 14:16	11/16/16 08:51
400-130175-2	GWC-30	Water	11/14/16 15:00	11/16/16 08:51
400-130175-3	FERB-1	Water	11/14/16 16:00	11/16/16 08:51

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 11/14/16 14:16**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.166	U	0.163	0.164	1.00	0.256	pCi/L	11/23/16 15:06	12/26/16 20:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/23/16 15:06	12/26/16 20:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.565		0.332	0.336	1.00	0.505	pCi/L	11/23/16 15:47	12/23/16 17:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/23/16 15:47	12/23/16 17:27	1
Y Carrier	78.1		40 - 110					11/23/16 15:47	12/23/16 17:27	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	0.731		0.370	0.374	5.00	0.505	pCi/L		12/28/16 09:53	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-130175-2**

**Date Collected: 11/14/16 15:00**

**Matrix: Water**

**Date Received: 11/16/16 08:51**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.148	U	0.168	0.169	1.00	0.274	pCi/L	11/23/16 15:06	12/26/16 20:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110					11/23/16 15:06	12/26/16 20:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.393	U	0.322	0.324	1.00	0.511	pCi/L	11/23/16 15:47	12/23/16 17:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110					11/23/16 15:47	12/23/16 17:27	1
Y Carrier	77.0		40 - 110					11/23/16 15:47	12/23/16 17:27	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.542		0.364	0.366	5.00	0.511	pCi/L		12/28/16 09:53	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Lab Sample ID: 400-130175-3**

**Date Collected: 11/14/16 16:00**

**Matrix: Water**

**Date Received: 11/16/16 08:51**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144	U	0.158	0.159	1.00	0.255	pCi/L	11/23/16 15:06	12/26/16 20:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					11/23/16 15:06	12/26/16 20:56	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.335	U	0.307	0.308	1.00	0.493	pCi/L	11/23/16 15:47	12/23/16 17:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					11/23/16 15:47	12/23/16 17:28	1
Y Carrier	78.5		40 - 110					11/23/16 15:47	12/23/16 17:28	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	0.480	U	0.345	0.347	5.00	0.493	pCi/L		12/28/16 09:53	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 11/14/16 14:16**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280877	11/23/16 15:06	ASB	TAL SL
Total/NA	Analysis	9315		1	285354	12/26/16 20:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280883	11/23/16 15:47	ASB	TAL SL
Total/NA	Analysis	9320		1	285293	12/23/16 17:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285684	12/28/16 09:53	RTM	TAL SL

**Client Sample ID: GWC-30**

**Date Collected: 11/14/16 15:00**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280877	11/23/16 15:06	ASB	TAL SL
Total/NA	Analysis	9315		1	285355	12/26/16 20:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280883	11/23/16 15:47	ASB	TAL SL
Total/NA	Analysis	9320		1	285293	12/23/16 17:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285684	12/28/16 09:53	RTM	TAL SL

**Client Sample ID: FERB-1**

**Date Collected: 11/14/16 16:00**

**Date Received: 11/16/16 08:51**

**Lab Sample ID: 400-130175-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280877	11/23/16 15:06	ASB	TAL SL
Total/NA	Analysis	9315		1	285355	12/26/16 20:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280883	11/23/16 15:47	ASB	TAL SL
Total/NA	Analysis	9320		1	285293	12/23/16 17:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285684	12/28/16 09:53	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 Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 280877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total/NA	Water	PrecSep-21	
400-130175-2	GWC-30	Total/NA	Water	PrecSep-21	
400-130175-3	FERB-1	Total/NA	Water	PrecSep-21	
MB 160-280877/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-280877/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-280877/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 280883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130175-1	GWC-26	Total/NA	Water	PrecSep_0	
400-130175-2	GWC-30	Total/NA	Water	PrecSep_0	
400-130175-3	FERB-1	Total/NA	Water	PrecSep_0	
MB 160-280883/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-280883/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-280883/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-280877/1-A**  
**Matrix: Water**  
**Analysis Batch: 285355**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 280877**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04160	U	0.0714	0.0715	1.00	0.188	pCi/L	11/23/16 15:06	12/26/16 19:01	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/23/16 15:06	12/26/16 19:01	1

**Lab Sample ID: LCS 160-280877/2-A**  
**Matrix: Water**  
**Analysis Batch: 285355**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 280877**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	11.83		1.35	1.00	0.229	pCi/L	107	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.3		40 - 110						

**Lab Sample ID: LCSD 160-280877/3-A**  
**Matrix: Water**  
**Analysis Batch: 285355**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 280877**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.1	11.12		1.27	1.00	0.210	pCi/L	100	68 - 137	0.27	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	86.9		40 - 110								

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

**Lab Sample ID: MB 160-280883/1-A**  
**Matrix: Water**  
**Analysis Batch: 285293**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 280883**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2243	U	0.277	0.278	1.00	0.536	pCi/L	11/23/16 15:47	12/23/16 17:24	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/23/16 15:47	12/23/16 17:24	1
Y Carrier	73.6		40 - 110					11/23/16 15:47	12/23/16 17:24	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-280883/2-A**  
**Matrix: Water**  
**Analysis Batch: 285293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 280883**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	14.14		1.60	1.00	0.484	pCi/L	100	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.3		40 - 110
Y Carrier	74.0		40 - 110

**Lab Sample ID: LCSD 160-280883/3-A**  
**Matrix: Water**  
**Analysis Batch: 285293**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 280883**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.1	14.01		1.59	1.00	0.432	pCi/L	99	56 - 140	0.04	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	86.9		40 - 110
Y Carrier	74.0		40 - 110

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

**Lab Sample ID: 400-130146-A-10 DU**  
**Matrix: Water**  
**Analysis Batch: 285684**

**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	0.138	U	0.3336	U	0.316	5.00	0.450	pCi/L	0.34	



# Chain of Custody Record



Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

<b>Client Information</b> 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: Plant Wansley - Gypsum Landfill Site: CCR		Sampler: Myles Rogers MR, Andreas Shoreffits AS Lab PIV: Whitmire, Cheyenne R Phone: E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		<b>Analysis Requested</b> TDS - SM 2540C ; Cl, F, SO4 - EPA 300 Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 Total Number of Containers:			
<b>Sample Identification</b> Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (Water, Solid, Other) Preservation Code (BT=Tissue, A=Air)		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No T D I D 1 1 1 1 1 1 1 1 1 1 1 1			
GWC-26 GWC-30 FERB-1		Special Instructions/Note: 400-130175 COC 			
<b>Possible Hazard Identification</b> <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: [Signature] Date/Time: 11/15/16 1515		Received by: [Signature] Date/Time: 11/15/16 1515 Company: ERM			
Relinquished by: [Signature] Date/Time: 11/15/16 1700		Received by: [Signature] Date/Time: 11/16/16 851 Company: TA			
Relinquished by:					
Custody Seals Intact: [Signature] Custody Seal No.:					
Cooler Temperature(s), °C, and Other Remarks: 3.8°C IRG					

Method of Shipment:  
 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: Please cc: Maria Padilla and Heath McCorkle with results

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130175-2  
SDG Number: Gypsum Landfill

**Login Number: 130175**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	745964
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-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 Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130175-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

# 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: 400-130237-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/7/2016 2:39:00 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Job ID: 400-130237-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-130237-1

#### Metals

Method(s) 6020: The internal standard Lithium-6 recovered below in house recommended recovery limits for (CCB 400-332176/178), (CCB 400-332176/79), (CCV 400-332176/175) and (CCV 400-332176/76). However, the internal standard recoveries meet the criteria stated in method 6020.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 331936 and analytical batch 332176 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 native sample and post-digestion spike (PDS) associated with preparation batch 331936 and analytical batch 332176 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Lithium in the PDS was above the instrument calibration range. The data have been reported and qualified.

Method(s) 7470A: The method blank for prep batch 332715 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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-25

## Lab Sample ID: 400-130237-1

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	18		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.029		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0052		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0017	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-34

## Lab Sample ID: 400-130237-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00043	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0055		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-130237-3

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	2.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000096	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-32

## Lab Sample ID: 400-130237-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0014	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0015	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	6.9		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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-32 (Continued)

## Lab Sample ID: 400-130237-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.012		0.0050	0.0032	mg/L	5		6020	Total
Total Dissolved Solids	94		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-5

## Lab Sample ID: 400-130237-5

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	15		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total
Calcium	20		0.25	0.13	mg/L	5		6020	Recoverable Total
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Recoverable Total
Lithium	0.0044	J	0.0050	0.0032	mg/L	5		6020	Recoverable Total
Molybdenum	0.00091	J	0.015	0.00085	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: DUP-1

## Lab Sample ID: 400-130237-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total
Calcium	2.6		0.25	0.13	mg/L	5		6020	Recoverable Total
Cobalt	0.00043	J	0.0025	0.00040	mg/L	5		6020	Recoverable Total
Lithium	0.0062		0.0050	0.0032	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FB-1

## Lab Sample ID: 400-130237-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130237-1	GWC-25	Water	11/15/16 10:26	11/17/16 08:37
400-130237-2	GWC-34	Water	11/15/16 11:45	11/17/16 08:37
400-130237-3	GWC-35	Water	11/15/16 13:50	11/17/16 08:37
400-130237-4	GWC-32	Water	11/15/16 14:45	11/17/16 08:37
400-130237-5	GWC-5	Water	11/15/16 16:50	11/17/16 08:37
400-130237-6	DUP-1	Water	11/15/16 00:00	11/17/16 08:37
400-130237-7	FB-1	Water	11/15/16 14:30	11/17/16 08:37

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**  
**Date Collected: 11/15/16 10:26**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.9</b>		1.0	0.89	mg/L			12/01/16 04:46	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 04:46	1
<b>Sulfate</b>	<b>18</b>		1.0	0.70	mg/L			12/01/16 04:46	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		11/21/16 13:20	11/22/16 17:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:08	5
<b>Barium</b>	<b>0.033</b>		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:08	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:08	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:08	5
<b>Cobalt</b>	<b>0.029</b>		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:08	5
<b>Lithium</b>	<b>0.0052</b>		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:08	5
<b>Molybdenum</b>	<b>0.0017 J</b>		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 17:08	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		11/28/16 09:09	11/29/16 13:01	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**  
**Date Collected: 11/15/16 11:45**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			12/01/16 05:09	1
Fluoride	0.14	J	0.20	0.082	mg/L			12/01/16 05:09	1
Sulfate	1.3		1.0	0.70	mg/L			12/01/16 05:09	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		11/21/16 13:20	11/22/16 17:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:12	5
Barium	0.011		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:12	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:12	5
Calcium	2.5		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:12	5
Cobalt	0.00043	J	0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:12	5
Lithium	0.0055		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 17:12	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		11/28/16 09:09	11/29/16 13:02	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	56		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**  
**Date Collected: 11/15/16 13:50**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.2</b>		1.0	0.89	mg/L			12/01/16 06:17	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 06:17	1
<b>Sulfate</b>	<b>2.3</b>		1.0	0.70	mg/L			12/01/16 06:17	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		11/21/16 13:20	11/22/16 17:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:17	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:17	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:17	5
<b>Calcium</b>	<b>1.8</b>		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 17:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000096</b>	<b>J B</b>	0.00020	0.000070	mg/L		11/28/16 09:09	11/29/16 13:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>44</b>		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**  
**Date Collected: 11/15/16 14:45**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			12/01/16 06:40	1
Fluoride	3.2		0.20	0.082	mg/L			12/01/16 06:40	1
Sulfate	13		1.0	0.70	mg/L			12/01/16 06:40	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		11/21/16 13:20	11/22/16 17:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:21	5
Barium	0.0014	J	0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:21	5
Beryllium	0.0015	J	0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:21	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:21	5
Calcium	6.9		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:21	5
Lithium	0.012		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 17:21	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		11/28/16 09:09	11/29/16 13:18	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	94		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 11/15/16 16:50**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-5**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>11</b>		1.0	0.89	mg/L			12/01/16 07:26	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 07:26	1
<b>Sulfate</b>	<b>15</b>		1.0	0.70	mg/L			12/01/16 07:26	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		11/21/16 13:20	11/22/16 17:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:26	5
<b>Barium</b>	<b>0.024</b>		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:26	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:26	5
<b>Calcium</b>	<b>20</b>		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:26	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:26	5
<b>Cobalt</b>	<b>0.011</b>		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:26	5
<b>Lithium</b>	<b>0.0044</b>	<b>J</b>	0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:26	5
<b>Molybdenum</b>	<b>0.00091</b>	<b>J</b>	0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 17:26	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/28/16 09:09	11/29/16 13:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>180</b>		5.0	3.4	mg/L			11/19/16 15:37	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**  
**Date Collected: 11/15/16 00:00**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-6**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			12/01/16 07:49	1
Fluoride	0.14	J	0.20	0.082	mg/L			12/01/16 07:49	1
Sulfate	1.3		1.0	0.70	mg/L			12/01/16 07:49	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		11/21/16 13:20	11/22/16 17:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:53	5
Barium	0.011		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:53	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:53	5
Calcium	2.6		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:53	5
Cobalt	0.00043	J	0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:53	5
Lithium	0.0062		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 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		11/28/16 09:09	11/29/16 13:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			11/18/16 17:47	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 11/15/16 14:30**  
**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-7**  
**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			12/01/16 08:11	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 08:11	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 08:11	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		11/21/16 13:20	11/22/16 17:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 17:57	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 17:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:57	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 17:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 17:57	5
Calcium	<0.13		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 17:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 17:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 17:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 17:57	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 17:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 17:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 17:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 17:57	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		11/28/16 09:09	11/29/16 13:22	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			11/19/16 15:37	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## 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.
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.
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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 11/15/16 10:26**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 04:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:08	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: GWC-34**

**Date Collected: 11/15/16 11:45**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 05:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:12	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: GWC-35**

**Date Collected: 11/15/16 13:50**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 06:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:17	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: GWC-32**

**Date Collected: 11/15/16 14:45**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 06:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:21	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 11/15/16 16:50**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 07:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:26	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: DUP-1**

**Date Collected: 11/15/16 00:00**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 07:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:53	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331714	11/18/16 17:47	RRC	TAL PEN

**Client Sample ID: FB-1**

**Date Collected: 11/15/16 14:30**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 08:11	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331936	11/21/16 13:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 17:57	AJR	TAL PEN
Total/NA	Prep	7470A			332715	11/28/16 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	332993	11/29/16 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total/NA	Water	300.0	
400-130237-2	GWC-34	Total/NA	Water	300.0	
400-130237-3	GWC-35	Total/NA	Water	300.0	
400-130237-4	GWC-32	Total/NA	Water	300.0	
400-130237-5	GWC-5	Total/NA	Water	300.0	
400-130237-6	DUP-1	Total/NA	Water	300.0	
400-130237-7	FB-1	Total/NA	Water	300.0	
MB 400-333261/86	Method Blank	Total/NA	Water	300.0	
LCS 400-333261/87	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-333261/88	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130029-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 331936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total Recoverable	Water	3005A	
400-130237-2	GWC-34	Total Recoverable	Water	3005A	
400-130237-3	GWC-35	Total Recoverable	Water	3005A	
400-130237-4	GWC-32	Total Recoverable	Water	3005A	
400-130237-5	GWC-5	Total Recoverable	Water	3005A	
400-130237-6	DUP-1	Total Recoverable	Water	3005A	
400-130237-7	FB-1	Total Recoverable	Water	3005A	
MB 400-331936/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-331936/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130078-F-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130078-F-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 332176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total Recoverable	Water	6020	331936
400-130237-2	GWC-34	Total Recoverable	Water	6020	331936
400-130237-3	GWC-35	Total Recoverable	Water	6020	331936
400-130237-4	GWC-32	Total Recoverable	Water	6020	331936
400-130237-5	GWC-5	Total Recoverable	Water	6020	331936
400-130237-6	DUP-1	Total Recoverable	Water	6020	331936
400-130237-7	FB-1	Total Recoverable	Water	6020	331936
MB 400-331936/1-A ^5	Method Blank	Total Recoverable	Water	6020	331936
LCS 400-331936/2-A	Lab Control Sample	Total Recoverable	Water	6020	331936
400-130078-F-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	331936
400-130078-F-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	331936

### Prep Batch: 332715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total/NA	Water	7470A	
400-130237-2	GWC-34	Total/NA	Water	7470A	
400-130237-3	GWC-35	Total/NA	Water	7470A	
400-130237-4	GWC-32	Total/NA	Water	7470A	
400-130237-5	GWC-5	Total/NA	Water	7470A	
400-130237-6	DUP-1	Total/NA	Water	7470A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 332715 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-7	FB-1	Total/NA	Water	7470A	
MB 400-332715/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-332715/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130502-A-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-130502-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 332993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total/NA	Water	7470A	332715
400-130237-2	GWC-34	Total/NA	Water	7470A	332715
400-130237-3	GWC-35	Total/NA	Water	7470A	332715
400-130237-4	GWC-32	Total/NA	Water	7470A	332715
400-130237-5	GWC-5	Total/NA	Water	7470A	332715
400-130237-6	DUP-1	Total/NA	Water	7470A	332715
400-130237-7	FB-1	Total/NA	Water	7470A	332715
MB 400-332715/14-A	Method Blank	Total/NA	Water	7470A	332715
LCS 400-332715/15-A	Lab Control Sample	Total/NA	Water	7470A	332715
400-130502-A-1-B MS	Matrix Spike	Total/NA	Water	7470A	332715
400-130502-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	332715

## General Chemistry

### Analysis Batch: 331714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-6	DUP-1	Total/NA	Water	SM 2540C	
MB 400-331714/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331714/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130141-B-5 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 331809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total/NA	Water	SM 2540C	
400-130237-2	GWC-34	Total/NA	Water	SM 2540C	
400-130237-3	GWC-35	Total/NA	Water	SM 2540C	
400-130237-4	GWC-32	Total/NA	Water	SM 2540C	
400-130237-5	GWC-5	Total/NA	Water	SM 2540C	
400-130237-7	FB-1	Total/NA	Water	SM 2540C	
MB 400-331809/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331809/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130237-1 DU	GWC-25	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333261/86**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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			11/30/16 23:26	1
Fluoride	<0.082		0.20	0.082	mg/L			11/30/16 23:26	1
Sulfate	<0.70		1.0	0.70	mg/L			11/30/16 23:26	1

**Lab Sample ID: LCS 400-333261/87**  
**Matrix: Water**  
**Analysis Batch: 333261**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.96		mg/L		100	90 - 110
Fluoride	10.0	9.63		mg/L		96	90 - 110
Sulfate	10.0	9.46		mg/L		95	90 - 110

**Lab Sample ID: LCSD 400-333261/88**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	2	15
Fluoride	10.0	9.68		mg/L		97	90 - 110	1	15
Sulfate	10.0	9.78		mg/L		98	90 - 110	3	15

**Lab Sample ID: 400-130029-A-16 MSD**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	14.0		mg/L		105	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	1	20
Sulfate	14		10.0	24.6		mg/L		105	80 - 120	0	20

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

**Lab Sample ID: MB 400-331936/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/21/16 13:20	11/22/16 14:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/21/16 13:20	11/22/16 14:25	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/21/16 13:20	11/22/16 14:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 14:25	5
Boron	<0.021		0.050	0.021	mg/L		11/21/16 13:20	11/22/16 14:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/21/16 13:20	11/22/16 14:25	5
Calcium	<0.13		0.25	0.13	mg/L		11/21/16 13:20	11/22/16 14:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/21/16 13:20	11/22/16 14:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/21/16 13:20	11/22/16 14:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/21/16 13:20	11/22/16 14:25	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/21/16 13:20	11/22/16 14:25	5

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-331936/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/21/16 13:20	11/22/16 14:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/21/16 13:20	11/22/16 14:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/21/16 13:20	11/22/16 14:25	5

**Lab Sample ID: LCS 400-331936/2-A**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0490		mg/L		98	80 - 120
Beryllium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.0982		mg/L		98	80 - 120
Cadmium	0.0500	0.0514		mg/L		103	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0489		mg/L		98	80 - 120
Cobalt	0.0500	0.0504		mg/L		101	80 - 120
Lead	0.0500	0.0489		mg/L		98	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.0500	0.0519		mg/L		104	80 - 120
Selenium	0.0500	0.0511		mg/L		102	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120

**Lab Sample ID: 400-130078-F-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331936**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0509		mg/L		102	75 - 125
Arsenic	0.14		0.0500	0.190		mg/L		106	75 - 125
Barium	0.046		0.0500	0.0944		mg/L		96	75 - 125
Beryllium	<0.00034		0.0500	0.0481		mg/L		96	75 - 125
Boron	0.79		0.100	0.922	4	mg/L		130	75 - 125
Cadmium	<0.00034		0.0500	0.0511		mg/L		102	75 - 125
Calcium	24		5.00	29.3	4	mg/L		109	75 - 125
Chromium	0.0032		0.0500	0.0534		mg/L		101	75 - 125
Cobalt	<0.00040		0.0500	0.0519		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0499		mg/L		100	75 - 125
Lithium	0.50		0.0500	0.544	4	mg/L		97	75 - 125
Molybdenum	0.035		0.0500	0.0880		mg/L		107	75 - 125
Selenium	0.00063	J F1	0.0500	0.0154	F1	mg/L		30	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130078-F-1-C MSD ^5**

**Matrix: Water**

**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 331936**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
				Result	Qualifier						
Antimony	<0.0010		0.0500	0.0512		mg/L		102	75 - 125	0	20
Arsenic	0.14		0.0500	0.185		mg/L		98	75 - 125	2	20
Barium	0.046		0.0500	0.0942		mg/L		96	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0490		mg/L		98	75 - 125	2	20
Boron	0.79		0.100	0.937	4	mg/L		145	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125	0	20
Calcium	24		5.00	29.0	4	mg/L		103	75 - 125	1	20
Chromium	0.0032		0.0500	0.0532		mg/L		100	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0511		mg/L		102	75 - 125	2	20
Lead	<0.00035		0.0500	0.0497		mg/L		99	75 - 125	0	20
Lithium	0.50		0.0500	0.545	4	mg/L		100	75 - 125	0	20
Molybdenum	0.035		0.0500	0.0865		mg/L		104	75 - 125	2	20
Selenium	0.00063	J F1	0.0500	0.0143	F1	mg/L		27	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-332715/14-A**

**Matrix: Water**

**Analysis Batch: 332993**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 332715**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.0000844	J	0.00020	0.000070	mg/L		11/28/16 08:31	11/29/16 12:25	1

**Lab Sample ID: LCS 400-332715/15-A**

**Matrix: Water**

**Analysis Batch: 332993**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 332715**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.00101	0.00102		mg/L		101	80 - 120

**Lab Sample ID: 400-130502-A-1-B MS**

**Matrix: Water**

**Analysis Batch: 332993**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 332715**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Mercury	<0.000070		0.00201	0.00198		mg/L		98	80 - 120

**Lab Sample ID: 400-130502-A-1-C MSD**

**Matrix: Water**

**Analysis Batch: 332993**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 332715**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
				Result	Qualifier						
Mercury	<0.000070		0.00201	0.00194		mg/L		96	80 - 120	2	20

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-331714/1**  
**Matrix: Water**  
**Analysis Batch: 331714**

**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			11/18/16 17:47	1

**Lab Sample ID: LCS 400-331714/2**  
**Matrix: Water**  
**Analysis Batch: 331714**

**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

**Lab Sample ID: 400-130141-B-5 DU**  
**Matrix: Water**  
**Analysis Batch: 331714**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	210		210		mg/L		0	5

**Lab Sample ID: MB 400-331809/1**  
**Matrix: Water**  
**Analysis Batch: 331809**

**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			11/19/16 15:37	1

**Lab Sample ID: LCS 400-331809/2**  
**Matrix: Water**  
**Analysis Batch: 331809**

**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	292		mg/L		100	78 - 122

**Lab Sample ID: 400-130237-1 DU**  
**Matrix: Water**  
**Analysis Batch: 331809**

**Client Sample ID: GWC-25**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		108		mg/L		2	5

**Chain of Custody Record**

681-Atlanta

Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

Carrier Tracking No(s): \_\_\_\_\_  
 Lab PM: Whitmire, Cheyenne R  
 Sampler: Myles Rogers, HR, Andreas Shoreditis AS  
 Client Information: Joju Abraham  
 Client Contact: Joju Abraham  
 Phone: \_\_\_\_\_  
 E-Mail: cheyenne.whitmire@testamericainc.com

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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=air)	Analysis Requested		Special Instructions/Note:
					TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	
GWC-25	11/15/16	1026	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-34	11/15/16	1145	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-35	11/15/16	1350	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-32	11/15/16	1445	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-5	11/15/16	1650	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DUP-1	11/15/16	-	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
FB-1	11/15/16	1430	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	400-130237 COC

**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: 11/16/16 1400 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date/Time: 11/16/16 1700 Company: TA  
 Relinquished by: \_\_\_\_\_ Date/Time: 11/17/16 837 Company: TA

Cooler Temperature(s) and Other Remarks: 4.9°C IRFS  
 Custody Seals Intact: Custody Seal No.: 745975  
 7425



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130237-1  
SDG Number: Gypsum Landfill

**Login Number: 130237**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	745975
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	4.9°C IR-5
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 Wansley

TestAmerica Job ID: 400-130237-1  
SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130237-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/30/2016 5:02:26 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Job ID: 400-130237-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-130237-2

#### RAD

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-280942: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-25 (400-130237-1), GWC-34 (400-130237-2), GWC-35 (400-130237-3), GWC-32 (400-130237-4), GWC-5 (400-130237-5), DUP-1 (400-130237-6) and FB-1 (400-130237-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-280938: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-25 (400-130237-1), GWC-34 (400-130237-2), GWC-35 (400-130237-3), GWC-32 (400-130237-4), GWC-5 (400-130237-5), DUP-1 (400-130237-6) and FB-1 (400-130237-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130237-1	GWC-25	Water	11/15/16 10:26	11/17/16 08:37
400-130237-2	GWC-34	Water	11/15/16 11:45	11/17/16 08:37
400-130237-3	GWC-35	Water	11/15/16 13:50	11/17/16 08:37
400-130237-4	GWC-32	Water	11/15/16 14:45	11/17/16 08:37
400-130237-5	GWC-5	Water	11/15/16 16:50	11/17/16 08:37
400-130237-6	DUP-1	Water	11/15/16 00:00	11/17/16 08:37
400-130237-7	FB-1	Water	11/15/16 14:30	11/17/16 08:37

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

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 11/15/16 10:26**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.497		0.282	0.285	1.00	0.354	pCi/L	11/25/16 11:56	12/28/16 22:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					11/25/16 11:56	12/28/16 22:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.120	U	0.217	0.217	1.00	0.369	pCi/L	11/25/16 12:58	12/28/16 14:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					11/25/16 12:58	12/28/16 14:34	1
Y Carrier	90.5		40 - 110					11/25/16 12:58	12/28/16 14:34	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	0.617		0.355	0.358	5.00	0.369	pCi/L		12/29/16 18:35	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-130237-2**

**Date Collected: 11/15/16 11:45**

**Matrix: Water**

**Date Received: 11/17/16 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	0.0963	U	0.253	0.253	1.00	0.459	pCi/L	11/25/16 11:56	12/28/16 22:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					11/25/16 11:56	12/28/16 22:28	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.150	U	0.245	0.245	1.00	0.413	pCi/L	11/25/16 12:58	12/28/16 14:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					11/25/16 12:58	12/28/16 14:35	1
Y Carrier	88.2		40 - 110					11/25/16 12:58	12/28/16 14:35	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	0.246	U	0.352	0.352	5.00	0.459	pCi/L		12/29/16 18:35	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-130237-3**

**Date Collected: 11/15/16 13:50**

**Matrix: Water**

**Date Received: 11/17/16 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	0.0869	U	0.245	0.245	1.00	0.450	pCi/L	11/25/16 11:56	12/28/16 22:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					11/25/16 11:56	12/28/16 22:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.133	U	0.244	0.244	1.00	0.415	pCi/L	11/25/16 12:58	12/28/16 14:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					11/25/16 12:58	12/28/16 14:35	1
Y Carrier	86.7		40 - 110					11/25/16 12:58	12/28/16 14:35	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	0.220	U	0.346	0.346	5.00	0.450	pCi/L		12/29/16 18:35	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-130237-4**

**Date Collected: 11/15/16 14:45**

**Matrix: Water**

**Date Received: 11/17/16 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	0.347	U	0.266	0.268	1.00	0.382	pCi/L	11/25/16 11:56	12/28/16 22:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/25/16 11:56	12/28/16 22:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.249	U	0.321	0.322	1.00	0.533	pCi/L	11/25/16 12:58	12/28/16 14:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/25/16 12:58	12/28/16 14:35	1
Y Carrier	90.1		40 - 110					11/25/16 12:58	12/28/16 14:35	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	0.597		0.417	0.419	5.00	0.533	pCi/L		12/29/16 18:35	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 11/15/16 16:50**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-5**

**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	0.289	U	0.258	0.260	1.00	0.390	pCi/L	11/25/16 11:56	12/28/16 22:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					11/25/16 11:56	12/28/16 22:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.239	U	0.363	0.363	1.00	0.607	pCi/L	11/25/16 12:58	12/28/16 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.8		40 - 110					11/25/16 12:58	12/28/16 14:26	1
Y Carrier	83.0		40 - 110					11/25/16 12:58	12/28/16 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.528	U	0.445	0.447	5.00	0.607	pCi/L		12/29/16 18:35	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 11/15/16 00:00**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-6**

**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	0.0594	U	0.239	0.239	1.00	0.451	pCi/L	11/25/16 11:56	12/28/16 22:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					11/25/16 11:56	12/28/16 22:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0165	U	0.267	0.267	1.00	0.472	pCi/L	11/25/16 12:58	12/28/16 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					11/25/16 12:58	12/28/16 14:26	1
Y Carrier	88.6		40 - 110					11/25/16 12:58	12/28/16 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0759	U	0.358	0.358	5.00	0.472	pCi/L		12/29/16 18:35	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**

**Date Collected: 11/15/16 14:30**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-7**

**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	0.0483	U	0.202	0.202	1.00	0.390	pCi/L	11/25/16 11:56	12/28/16 22:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					11/25/16 11:56	12/28/16 22:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.289	U	0.243	0.245	1.00	0.480	pCi/L	11/25/16 12:58	12/28/16 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					11/25/16 12:58	12/28/16 14:26	1
Y Carrier	90.8		40 - 110					11/25/16 12:58	12/28/16 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.241	U	0.316	0.317	5.00	0.480	pCi/L		12/29/16 18:35	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 11/15/16 10:26**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285700	12/28/16 22:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 14:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	RTM	TAL SL

**Client Sample ID: GWC-34**

**Date Collected: 11/15/16 11:45**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285701	12/28/16 22:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 14:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	RTM	TAL SL

**Client Sample ID: GWC-35**

**Date Collected: 11/15/16 13:50**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285701	12/28/16 22:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 14:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	RTM	TAL SL

**Client Sample ID: GWC-32**

**Date Collected: 11/15/16 14:45**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285701	12/28/16 22:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 14:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 11/15/16 16:50**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285701	12/28/16 22:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285727	12/28/16 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	RTM	TAL SL

**Client Sample ID: DUP-1**

**Date Collected: 11/15/16 00:00**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285701	12/28/16 22:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285727	12/28/16 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	RTM	TAL SL

**Client Sample ID: FB-1**

**Date Collected: 11/15/16 14:30**

**Date Received: 11/17/16 08:37**

**Lab Sample ID: 400-130237-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			280938	11/25/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	285701	12/28/16 22:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			280942	11/25/16 12:58	AS	TAL SL
Total/NA	Analysis	9320		1	285727	12/28/16 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285852	12/29/16 18:35	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 Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 280938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total/NA	Water	PrecSep-21	
400-130237-2	GWC-34	Total/NA	Water	PrecSep-21	
400-130237-3	GWC-35	Total/NA	Water	PrecSep-21	
400-130237-4	GWC-32	Total/NA	Water	PrecSep-21	
400-130237-5	GWC-5	Total/NA	Water	PrecSep-21	
400-130237-6	DUP-1	Total/NA	Water	PrecSep-21	
400-130237-7	FB-1	Total/NA	Water	PrecSep-21	
MB 160-280938/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-280938/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-280938/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 280942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130237-1	GWC-25	Total/NA	Water	PrecSep_0	
400-130237-2	GWC-34	Total/NA	Water	PrecSep_0	
400-130237-3	GWC-35	Total/NA	Water	PrecSep_0	
400-130237-4	GWC-32	Total/NA	Water	PrecSep_0	
400-130237-5	GWC-5	Total/NA	Water	PrecSep_0	
400-130237-6	DUP-1	Total/NA	Water	PrecSep_0	
400-130237-7	FB-1	Total/NA	Water	PrecSep_0	
MB 160-280942/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-280942/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-280942/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-280938/1-A**  
**Matrix: Water**  
**Analysis Batch: 285700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 280938**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.3902	U	0.283	0.285	1.00	0.398	pCi/L	11/25/16 11:56	12/28/16 22:23	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	79.8		40 - 110		11/25/16 11:56	12/28/16 22:23	1			

**Lab Sample ID: LCS 160-280938/2-A**  
**Matrix: Water**  
**Analysis Batch: 285758**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 280938**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	11.55		1.56	1.00	0.382	pCi/L	104	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	62.1		40 - 110						

**Lab Sample ID: LCSD 160-280938/3-A**  
**Matrix: Water**  
**Analysis Batch: 285700**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 280938**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.1	13.38		1.75	1.00	0.449	pCi/L	121	68 - 137	0.55	1
Carrier	LCSD LCSD		Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	%Yield	Qualifier	Limits								
Ba Carrier	78.1		40 - 110								

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

**Lab Sample ID: MB 160-280942/1-A**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 280942**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.2335	U	0.262	0.263	1.00	0.505	pCi/L	11/25/16 12:58	12/28/16 14:33	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	79.8		40 - 110		11/25/16 12:58	12/28/16 14:33	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	87.5		40 - 110		11/25/16 12:58	12/28/16 14:33	1			

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-280942/2-A**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 280942**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	17.35		1.94	1.00	0.587	pCi/L	123	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	62.1		40 - 110
Y Carrier	89.3		40 - 110

**Lab Sample ID: LCSD 160-280942/3-A**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 280942**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.1	16.49		1.79	1.00	0.428	pCi/L	117	56 - 140	0.23	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	78.1		40 - 110
Y Carrier	88.2		40 - 110

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

**Lab Sample ID: 400-130328-A-10 DU**  
**Matrix: Water**  
**Analysis Batch: 285852**

**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	0.694		0.1053	U	0.334	5.00	0.483	pCi/L	0.80	



**Chain of Custody Record**

681-Atlanta

Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

Carrier Tracking No(s): \_\_\_\_\_  
 Lab PM: Whitmire, Cheyenne R  
 Sampler: Myles Rogers, HR, Andreas Shoreditis AS  
 Client Information: Joju Abraham  
 Client Contact: Joju Abraham  
 Phone: \_\_\_\_\_  
 E-Mail: cheyenne.whitmire@testamerica.com

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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=air)	Analysis Requested		Special Instructions/Note:
					TDS - SM 2540C; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	
GWC-25	11/15/16	1026	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-34	11/15/16	1145	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-35	11/15/16	1350	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-32	11/15/16	1445	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GWC-5	11/15/16	1650	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DUP-1	11/15/16	-	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
FB-1	11/15/16	1430	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	400-130237 COC

**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: 11/16/16 1400 Company: ERM

Relinquished by: \_\_\_\_\_ Date/Time: 11/16/16 1700 Company: TA

Relinquished by: \_\_\_\_\_ Date/Time: 11/17/16 837 Company: TA

Cooler Temperature(s) and Other Remarks: 4.9°C IRFS

Custody Seal No.: 745975

7425



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130237-2  
SDG Number: Gypsum Landfill

**Login Number: 130237**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	745975
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	4.9°C IR-5
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 Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130237-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

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: 400-130301-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/9/2016 12:00:47 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

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**Job ID: 400-130301-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-130301-1**

**HPLC/IC**

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWC-9 (400-130301-2), GWC-7 (400-130301-3) and DUP-2 (400-130301-9). Elevated reporting limits (RLs) are provided.

**Metals**

Method(s) 6020: The method blank for preparation batch 331989 and analytical batch 332368 contained Chromium 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.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-6

## Lab Sample ID: 400-130301-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.015		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0050		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00031	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00012	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: GWC-9

## Lab Sample ID: 400-130301-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	83		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.18		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.44		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	28		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.061		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0056		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00015	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	280		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-7

## Lab Sample ID: 400-130301-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	32		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.22		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	89		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	59		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0044		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.015		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	500		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-8

## Lab Sample ID: 400-130301-4

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-8 (Continued)

## Lab Sample ID: 400-130301-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	36		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.064		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.014		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0021	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Thallium	0.000090	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-2

## Lab Sample ID: 400-130301-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-2

## Lab Sample ID: 400-130301-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0011	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-11

## Lab Sample ID: 400-130301-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.7		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
Arsenic	0.0012	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.29		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	J B	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0050		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	200		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-12

## Lab Sample ID: 400-130301-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14		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	19		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.018		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 Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-12 (Continued)

## Lab Sample ID: 400-130301-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	34		0.25	0.13	mg/L	5		6020	Total
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: DUP-2

## Lab Sample ID: 400-130301-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	81		5.0	4.5	mg/L	5		300.0	Total/NA
Fluoride	0.086	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	24		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.19		0.0025	0.00049	mg/L	5		6020	Total
Boron	0.43		0.050	0.021	mg/L	5		6020	Recoverable Total
Calcium	28		0.25	0.13	mg/L	5		6020	Recoverable Total
Cobalt	0.061		0.0025	0.00040	mg/L	5		6020	Recoverable Total
Lithium	0.0044	J	0.0050	0.0032	mg/L	5		6020	Recoverable Total
Thallium	0.00011	J	0.00050	0.000085	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130301-1	GWC-6	Water	11/16/16 09:40	11/18/16 08:33
400-130301-2	GWC-9	Water	11/16/16 10:05	11/18/16 08:33
400-130301-3	GWC-7	Water	11/16/16 11:20	11/18/16 08:33
400-130301-4	GWC-8	Water	11/16/16 11:34	11/18/16 08:33
400-130301-5	FB-2	Water	11/16/16 11:52	11/18/16 08:33
400-130301-6	FERB-2	Water	11/16/16 12:25	11/18/16 08:33
400-130301-7	GWC-11	Water	11/16/16 14:28	11/18/16 08:33
400-130301-8	GWC-12	Water	11/16/16 15:55	11/18/16 08:33
400-130301-9	DUP-2	Water	11/16/16 00:00	11/18/16 08:33



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 11/16/16 09:40**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.2</b>		1.0	0.89	mg/L			12/01/16 23:33	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 23:33	1
<b>Sulfate</b>	<b>15</b>		1.0	0.70	mg/L			12/01/16 23:33	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		11/22/16 08:30	11/23/16 16:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 16:42	5
<b>Barium</b>	<b>0.062</b>		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 16:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:42	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 16:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:42	5
<b>Calcium</b>	<b>14</b>		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 16:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 16:42	5
<b>Cobalt</b>	<b>0.015</b>		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 16:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 16:42	5
<b>Lithium</b>	<b>0.0050</b>		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 16:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 16:42	5
<b>Selenium</b>	<b>0.00031</b>	<b>J</b>	0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 16:42	5
<b>Thallium</b>	<b>0.00012</b>	<b>J</b>	0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 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		11/30/16 09:37	12/01/16 14:09	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>150</b>		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 11/16/16 10:05**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>83</b>		5.0	4.5	mg/L			12/03/16 10:28	5
Fluoride	<0.082		0.20	0.082	mg/L			12/02/16 01:50	1
<b>Sulfate</b>	<b>22</b>		1.0	0.70	mg/L			12/02/16 01:50	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		11/22/16 08:30	11/23/16 16:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 16:47	5
<b>Barium</b>	<b>0.18</b>		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 16:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:47	5
<b>Boron</b>	<b>0.44</b>		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 16:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:47	5
<b>Calcium</b>	<b>28</b>		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 16:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 16:47	5
<b>Cobalt</b>	<b>0.061</b>		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 16:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 16:47	5
<b>Lithium</b>	<b>0.0056</b>		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 16:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 16:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 16:47	5
<b>Thallium</b>	<b>0.00015</b>	<b>J</b>	0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 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		11/30/16 09:37	12/01/16 14:10	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>280</b>		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**  
**Date Collected: 11/16/16 11:20**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32		1.0	0.89	mg/L			12/02/16 02:58	1
Fluoride	0.22		0.20	0.082	mg/L			12/02/16 02:58	1
Sulfate	89		5.0	3.5	mg/L			12/06/16 13:03	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		11/22/16 08:30	11/23/16 16:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 16:51	5
Barium	0.11		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 16:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:51	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 16:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:51	5
Calcium	59		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 16:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 16:51	5
Cobalt	0.0044		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 16:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 16:51	5
Lithium	0.015		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 16:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 16:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 16:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 16:51	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		11/30/16 09:37	12/01/16 14:11	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	500		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 11/16/16 11:34**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.2</b>		1.0	0.89	mg/L			12/02/16 03:21	1
Fluoride	<0.082		0.20	0.082	mg/L			12/02/16 03:21	1
<b>Sulfate</b>	<b>36</b>		1.0	0.70	mg/L			12/02/16 03:21	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		11/22/16 08:30	11/23/16 16:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 16:56	5
<b>Barium</b>	<b>0.053</b>		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 16:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:56	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 16:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 16:56	5
<b>Calcium</b>	<b>30</b>		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 16:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 16:56	5
<b>Cobalt</b>	<b>0.064</b>		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 16:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 16:56	5
<b>Lithium</b>	<b>0.014</b>		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 16:56	5
<b>Molybdenum</b>	<b>0.0021</b>	<b>J</b>	0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 16:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 16:56	5
<b>Thallium</b>	<b>0.000090</b>	<b>J</b>	0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 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		11/30/16 09:37	12/01/16 14:12	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>240</b>		5.0	3.4	mg/L			11/19/16 15:37	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 11/16/16 11:52**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-5**  
**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			12/02/16 03:44	1
Fluoride	<0.082		0.20	0.082	mg/L			12/02/16 03:44	1
Sulfate	<0.70		1.0	0.70	mg/L			12/02/16 03:44	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		11/22/16 08:30	11/23/16 17:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 17:00	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 17:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:00	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 17:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:00	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 17:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 17:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 17:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 17:00	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 17:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 17:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 17:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 17:00	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		11/30/16 09:37	12/01/16 14:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			11/19/16 15:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**  
**Date Collected: 11/16/16 12:25**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-6**  
**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			12/02/16 04:06	1
Fluoride	<0.082		0.20	0.082	mg/L			12/02/16 04:06	1
Sulfate	<0.70		1.0	0.70	mg/L			12/02/16 04:06	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		11/22/16 08:30	11/23/16 17:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 17:05	5
<b>Barium</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 17:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:05	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 17:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:05	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 17:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 17:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 17:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 17:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 17:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 17:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 17:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 17:05	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		11/30/16 09:37	12/01/16 14:15	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>42</b>		5.0	3.4	mg/L			11/22/16 19:16	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-11**  
**Date Collected: 11/16/16 14:28**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-7**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.7		1.0	0.89	mg/L			12/02/16 04:29	1
Fluoride	0.14	J	0.20	0.082	mg/L			12/02/16 04:29	1
Sulfate	<0.70		1.0	0.70	mg/L			12/02/16 04:29	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		11/22/16 08:30	11/23/16 17:32	5
Arsenic	0.0012	J	0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 17:32	5
Barium	0.29		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 17:32	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:32	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 17:32	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:32	5
Calcium	15		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 17:32	5
Chromium	0.0020	J B	0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 17:32	5
Cobalt	0.0050		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 17:32	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 17:32	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 17:32	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 17:32	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 17:32	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 17:32	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		11/30/16 09:37	12/01/16 14:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			11/22/16 19:16	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Date Collected: 11/16/16 15:55**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-8**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.89	mg/L			12/02/16 04:52	1
Fluoride	0.16	J	0.20	0.082	mg/L			12/02/16 04:52	1
Sulfate	19		1.0	0.70	mg/L			12/02/16 04:52	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		11/22/16 08:30	11/23/16 17:36	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 17:36	5
Barium	0.018		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 17:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:36	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 17:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:36	5
Calcium	34		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 17:36	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 17:36	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 17:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 17:36	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 17:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 17:36	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 17:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 17:36	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		11/30/16 09:37	12/01/16 14:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			11/22/16 19:16	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**  
**Date Collected: 11/16/16 00:00**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-9**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81		5.0	4.5	mg/L			12/03/16 11:13	5
Fluoride	0.086	J	0.20	0.082	mg/L			12/03/16 09:19	1
Sulfate	24		1.0	0.70	mg/L			12/06/16 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		11/22/16 08:30	11/23/16 17:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 17:41	5
Barium	0.19		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 17:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:41	5
Boron	0.43		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 17:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:41	5
Calcium	28		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 17:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 17:41	5
Cobalt	0.061		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 17:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 17:41	5
Lithium	0.0044	J	0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 17:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 17:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 17:41	5
Thallium	0.00011	J	0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 17:41	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		11/30/16 09:37	12/01/16 14:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	260		5.0	3.4	mg/L			11/19/16 15:37	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## 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.
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.
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 Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**

**Date Collected: 11/16/16 09:40**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 23:33	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 16:42	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: GWC-9**

**Date Collected: 11/16/16 10:05**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 01:50	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	333676	12/03/16 10:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 16:47	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: GWC-7**

**Date Collected: 11/16/16 11:20**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 02:58	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	333953	12/06/16 13:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 16:51	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: GWC-8**

**Date Collected: 11/16/16 11:34**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 03:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 16:56	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 11/16/16 11:34**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	333380	12/01/16 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: FB-2**

**Date Collected: 11/16/16 11:52**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 03:44	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 17:00	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331809	11/19/16 15:37	RRC	TAL PEN

**Client Sample ID: FERB-2**

**Date Collected: 11/16/16 12:25**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 04:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 17:05	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332203	11/22/16 19:16	RRC	TAL PEN

**Client Sample ID: GWC-11**

**Date Collected: 11/16/16 14:28**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 04:29	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 17:32	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332203	11/22/16 19:16	RRC	TAL PEN



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-130301-8**

**Date Collected: 11/16/16 15:55**

**Matrix: Water**

**Date Received: 11/18/16 08:33**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333439	12/02/16 04:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 17:36	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332203	11/22/16 19:16	RRC	TAL PEN

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-130301-9**

**Date Collected: 11/16/16 00:00**

**Matrix: Water**

**Date Received: 11/18/16 08:33**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333676	12/03/16 09:19	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	333676	12/03/16 11:13	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333953	12/06/16 14:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 17:41	AJR	TAL PEN
Total/NA	Prep	7470A			333102	11/30/16 09:37	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	331810	11/19/16 15:37	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 Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total/NA	Water	300.0	
MB 400-333332/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333332/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333332/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130755-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130755-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 333439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-2	GWC-9	Total/NA	Water	300.0	
400-130301-3	GWC-7	Total/NA	Water	300.0	
400-130301-4	GWC-8	Total/NA	Water	300.0	
400-130301-5	FB-2	Total/NA	Water	300.0	
400-130301-6	FERB-2	Total/NA	Water	300.0	
400-130301-7	GWC-11	Total/NA	Water	300.0	
400-130301-8	GWC-12	Total/NA	Water	300.0	
MB 400-333439/36	Method Blank	Total/NA	Water	300.0	
LCS 400-333439/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333439/40	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130301-2 MS	GWC-9	Total/NA	Water	300.0	
400-130301-2 MSD	GWC-9	Total/NA	Water	300.0	

### Analysis Batch: 333676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-2	GWC-9	Total/NA	Water	300.0	
400-130301-9	DUP-2	Total/NA	Water	300.0	
400-130301-9	DUP-2	Total/NA	Water	300.0	
MB 400-333676/36	Method Blank	Total/NA	Water	300.0	
LCS 400-333676/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333676/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130805-I-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130805-I-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 333953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-3	GWC-7	Total/NA	Water	300.0	
400-130301-9	DUP-2	Total/NA	Water	300.0	
MB 400-333953/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333953/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333953/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130301-3 MS	GWC-7	Total/NA	Water	300.0	
400-130301-3 MSD	GWC-7	Total/NA	Water	300.0	

## Metals

### Prep Batch: 331989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total Recoverable	Water	3005A	
400-130301-2	GWC-9	Total Recoverable	Water	3005A	
400-130301-3	GWC-7	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 331989 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-4	GWC-8	Total Recoverable	Water	3005A	
400-130301-5	FB-2	Total Recoverable	Water	3005A	
400-130301-6	FERB-2	Total Recoverable	Water	3005A	
400-130301-7	GWC-11	Total Recoverable	Water	3005A	
400-130301-8	GWC-12	Total Recoverable	Water	3005A	
400-130301-9	DUP-2	Total Recoverable	Water	3005A	
MB 400-331989/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-331989/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130269-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130269-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 332368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total Recoverable	Water	6020	331989
400-130301-2	GWC-9	Total Recoverable	Water	6020	331989
400-130301-3	GWC-7	Total Recoverable	Water	6020	331989
400-130301-4	GWC-8	Total Recoverable	Water	6020	331989
400-130301-5	FB-2	Total Recoverable	Water	6020	331989
400-130301-6	FERB-2	Total Recoverable	Water	6020	331989
400-130301-7	GWC-11	Total Recoverable	Water	6020	331989
400-130301-8	GWC-12	Total Recoverable	Water	6020	331989
400-130301-9	DUP-2	Total Recoverable	Water	6020	331989
MB 400-331989/1-A	Method Blank	Total Recoverable	Water	6020	331989
LCS 400-331989/2-A	Lab Control Sample	Total Recoverable	Water	6020	331989
400-130269-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	331989
400-130269-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	331989

### Prep Batch: 333102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total/NA	Water	7470A	
400-130301-2	GWC-9	Total/NA	Water	7470A	
400-130301-3	GWC-7	Total/NA	Water	7470A	
400-130301-4	GWC-8	Total/NA	Water	7470A	
400-130301-5	FB-2	Total/NA	Water	7470A	
400-130301-6	FERB-2	Total/NA	Water	7470A	
400-130301-7	GWC-11	Total/NA	Water	7470A	
400-130301-8	GWC-12	Total/NA	Water	7470A	
400-130301-9	DUP-2	Total/NA	Water	7470A	
MB 400-333102/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-333102/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130612-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-130612-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 333380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total/NA	Water	7470A	333102
400-130301-2	GWC-9	Total/NA	Water	7470A	333102
400-130301-3	GWC-7	Total/NA	Water	7470A	333102
400-130301-4	GWC-8	Total/NA	Water	7470A	333102
400-130301-5	FB-2	Total/NA	Water	7470A	333102
400-130301-6	FERB-2	Total/NA	Water	7470A	333102

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 333380 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-7	GWC-11	Total/NA	Water	7470A	333102
400-130301-8	GWC-12	Total/NA	Water	7470A	333102
400-130301-9	DUP-2	Total/NA	Water	7470A	333102
MB 400-333102/14-A	Method Blank	Total/NA	Water	7470A	333102
LCS 400-333102/15-A	Lab Control Sample	Total/NA	Water	7470A	333102
400-130612-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	333102
400-130612-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	333102

## General Chemistry

### Analysis Batch: 331809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total/NA	Water	SM 2540C	
400-130301-2	GWC-9	Total/NA	Water	SM 2540C	
400-130301-3	GWC-7	Total/NA	Water	SM 2540C	
400-130301-4	GWC-8	Total/NA	Water	SM 2540C	
400-130301-5	FB-2	Total/NA	Water	SM 2540C	
MB 400-331809/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331809/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130146-B-15 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 331810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-9	DUP-2	Total/NA	Water	SM 2540C	
MB 400-331810/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-331810/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130191-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 332203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-6	FERB-2	Total/NA	Water	SM 2540C	
400-130301-7	GWC-11	Total/NA	Water	SM 2540C	
400-130301-8	GWC-12	Total/NA	Water	SM 2540C	
MB 400-332203/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-332203/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130328-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333332/4**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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			12/01/16 11:37	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 11:37	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 11:37	1

**Lab Sample ID: LCS 400-333332/5**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.91		mg/L		99	90 - 110
Sulfate	10.0	9.61		mg/L		96	90 - 110

**Lab Sample ID: LCSD 400-333332/6**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.92		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.61		mg/L		96	90 - 110	0	15

**Lab Sample ID: 400-130755-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	293	E 4	mg/L		28	80 - 120
Fluoride	0.14	J	10.0	10.6		mg/L		105	80 - 120
Sulfate	500	E	10.0	507	E 4	mg/L		80	80 - 120

**Lab Sample ID: 400-130755-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	295	E 4	mg/L		49	80 - 120	1	20
Fluoride	0.14	J	10.0	10.6		mg/L		104	80 - 120	0	20
Sulfate	500	E	10.0	512	E 4	mg/L		124	80 - 120	1	20

**Lab Sample ID: MB 400-333439/36**  
**Matrix: Water**  
**Analysis Batch: 333439**

**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			12/01/16 23:55	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 23:55	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 23:55	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-333439/37**  
**Matrix: Water**  
**Analysis Batch: 333439**

**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	9.92		mg/L		99	90 - 110
Sulfate	10.0	9.28		mg/L		93	90 - 110

**Lab Sample ID: LCSD 400-333439/40**  
**Matrix: Water**  
**Analysis Batch: 333439**

**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	9.98		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.42		mg/L		94	90 - 110	1	15

**Lab Sample ID: 400-130301-2 MS**  
**Matrix: Water**  
**Analysis Batch: 333439**

**Client Sample ID: GWC-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	78	E	10.0	87.0	E 4	mg/L		87	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	22		10.0	31.5		mg/L		94	80 - 120

**Lab Sample ID: 400-130301-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 333439**

**Client Sample ID: GWC-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	78	E	10.0	86.9	E 4	mg/L		86	80 - 120	0	20
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120	0	20
Sulfate	22		10.0	31.4		mg/L		93	80 - 120	0	20

**Lab Sample ID: MB 400-333676/36**  
**Matrix: Water**  
**Analysis Batch: 333676**

**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			12/03/16 05:54	1
Fluoride	<0.082		0.20	0.082	mg/L			12/03/16 05:54	1
Sulfate	<0.70		1.0	0.70	mg/L			12/03/16 05:54	1

**Lab Sample ID: LCS 400-333676/37**  
**Matrix: Water**  
**Analysis Batch: 333676**

**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	10.2		mg/L		102	90 - 110
Sulfate	10.0	9.15		mg/L		91	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-333676/38**  
**Matrix: Water**  
**Analysis Batch: 333676**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.23		mg/L		92	90 - 110	1	15

**Lab Sample ID: 400-130805-I-4 MS**  
**Matrix: Water**  
**Analysis Batch: 333676**

**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	12		10.0	22.3		mg/L		100	80 - 120
Fluoride	0.21		10.0	10.7		mg/L		105	80 - 120
Sulfate	310	E	10.0	321	E 4	mg/L		79	80 - 120

**Lab Sample ID: 400-130805-I-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 333676**

**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	12		10.0	22.3		mg/L		101	80 - 120	0	20
Fluoride	0.21		10.0	10.6		mg/L		104	80 - 120	1	20
Sulfate	310	E	10.0	322	E 4	mg/L		87	80 - 120	0	20

**Lab Sample ID: MB 400-333953/4**  
**Matrix: Water**  
**Analysis Batch: 333953**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.70		1.0	0.70	mg/L			12/06/16 11:55	1

**Lab Sample ID: LCS 400-333953/5**  
**Matrix: Water**  
**Analysis Batch: 333953**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.6		mg/L		106	90 - 110

**Lab Sample ID: LCSD 400-333953/6**  
**Matrix: Water**  
**Analysis Batch: 333953**

**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
Sulfate	10.0	10.5		mg/L		105	90 - 110	2	15

**Lab Sample ID: 400-130301-3 MS**  
**Matrix: Water**  
**Analysis Batch: 333953**

**Client Sample ID: GWC-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	89		50.0	139		mg/L		100	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 400-130301-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 333953**

**Client Sample ID: GWC-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	89		50.0	139		mg/L		99	80 - 120	0	20

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

**Lab Sample ID: MB 400-331989/1-A**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331989**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00020		0.00050	0.00020	mg/L		11/22/16 08:30	11/23/16 16:33	1
Arsenic	<0.000092		0.00025	0.000092	mg/L		11/22/16 08:30	11/23/16 16:33	1
Barium	<0.000098		0.00050	0.000098	mg/L		11/22/16 08:30	11/23/16 16:33	1
Beryllium	<0.000068		0.00050	0.000068	mg/L		11/22/16 08:30	11/23/16 16:33	1
Boron	<0.0042		0.010	0.0042	mg/L		11/22/16 08:30	11/23/16 16:33	1
Cadmium	<0.000068		0.00050	0.000068	mg/L		11/22/16 08:30	11/23/16 16:33	1
Calcium	<0.025		0.050	0.025	mg/L		11/22/16 08:30	11/23/16 16:33	1
Chromium	0.000250	J	0.00050	0.00022	mg/L		11/22/16 08:30	11/23/16 16:33	1
Cobalt	<0.000080		0.00050	0.000080	mg/L		11/22/16 08:30	11/23/16 16:33	1
Lead	<0.000070		0.00025	0.000070	mg/L		11/22/16 08:30	11/23/16 16:33	1
Lithium	<0.00064		0.0010	0.00064	mg/L		11/22/16 08:30	11/23/16 16:33	1
Molybdenum	<0.00017		0.0030	0.00017	mg/L		11/22/16 08:30	11/23/16 16:33	1
Selenium	<0.000048		0.00025	0.000048	mg/L		11/22/16 08:30	11/23/16 16:33	1
Thallium	<0.000017		0.00010	0.000017	mg/L		11/22/16 08:30	11/23/16 16:33	1

**Lab Sample ID: LCS 400-331989/2-A**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331989**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0503		mg/L		101	80 - 120
Barium	0.0500	0.0496		mg/L		99	80 - 120
Beryllium	0.0500	0.0461		mg/L		92	80 - 120
Boron	0.100	0.0973		mg/L		97	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	5.00	4.84		mg/L		97	80 - 120
Chromium	0.0500	0.0493		mg/L		99	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0492		mg/L		98	80 - 120
Lithium	0.0500	0.0502		mg/L		100	80 - 120
Molybdenum	0.0500	0.0504		mg/L		101	80 - 120
Selenium	0.0500	0.0489		mg/L		98	80 - 120
Thallium	0.0100	0.00990		mg/L		99	80 - 120



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130269-G-1-B MS ^5**

**Matrix: Water**

**Analysis Batch: 332368**

**Client Sample ID: Matrix Spike**

**Prep Type: Total Recoverable**

**Prep Batch: 331989**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits	
	Result	Qualifier		Result	Qualifier					
Antimony	0.0013	J	0.0500	0.0544		mg/L		106	75 - 125	
Arsenic	0.0014		0.0500	0.0527		mg/L		103	75 - 125	
Barium	0.19		0.0500	0.234		mg/L		90	75 - 125	
Beryllium	<0.00034		0.0500	0.0458		mg/L		92	75 - 125	
Boron	0.59		0.100	0.702	4	mg/L		112	75 - 125	
Cadmium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125	
Calcium	520	E	5.00	531	E 4	mg/L		289	75 - 125	
Chromium	0.0016	J B	0.0500	0.0501		mg/L		97	75 - 125	
Cobalt	0.0010	J	0.0500	0.0486		mg/L		95	75 - 125	
Lead	0.0010	J	0.0500	0.0522		mg/L		102	75 - 125	
Lithium	0.28		0.0500	0.328	4	mg/L		97	75 - 125	
Molybdenum	<0.00085		0.0500	0.0530		mg/L		106	75 - 125	
Selenium	0.00064	J	0.0500	0.0518		mg/L		102	75 - 125	
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	

**Lab Sample ID: 400-130269-G-1-C MSD ^5**

**Matrix: Water**

**Analysis Batch: 332368**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 331989**

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Antimony	0.0013	J	0.0500	0.0545		mg/L		106	75 - 125	0	20
Arsenic	0.0014		0.0500	0.0531		mg/L		103	75 - 125	1	20
Barium	0.19		0.0500	0.243		mg/L		107	75 - 125	4	20
Beryllium	<0.00034		0.0500	0.0461		mg/L		92	75 - 125	1	20
Boron	0.59		0.100	0.714	4	mg/L		123	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0496		mg/L		99	75 - 125	1	20
Calcium	520	E	5.00	543	E 4	mg/L		529	75 - 125	2	20
Chromium	0.0016	J B	0.0500	0.0511		mg/L		99	75 - 125	2	20
Cobalt	0.0010	J	0.0500	0.0496		mg/L		97	75 - 125	2	20
Lead	0.0010	J	0.0500	0.0521		mg/L		102	75 - 125	0	20
Lithium	0.28		0.0500	0.334	4	mg/L		107	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0528		mg/L		106	75 - 125	0	20
Selenium	0.00064	J	0.0500	0.0511		mg/L		101	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-333102/14-A**

**Matrix: Water**

**Analysis Batch: 333380**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 333102**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Mercury	<0.000070		0.00020	0.000070	mg/L		11/30/16 09:28	12/01/16 13:41		1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 400-333102/15-A**  
**Matrix: Water**  
**Analysis Batch: 333380**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 333102**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000990		mg/L		98	80 - 120

**Lab Sample ID: 400-130612-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 333380**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 333102**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00185		mg/L		92	80 - 120

**Lab Sample ID: 400-130612-B-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 333380**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 333102**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00184		mg/L		91	80 - 120	1	20

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

**Lab Sample ID: MB 400-331809/1**  
**Matrix: Water**  
**Analysis Batch: 331809**

**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			11/19/16 15:37	1

**Lab Sample ID: LCS 400-331809/2**  
**Matrix: Water**  
**Analysis Batch: 331809**

**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	292		mg/L		100	78 - 122

**Lab Sample ID: 400-130146-B-15 DU**  
**Matrix: Water**  
**Analysis Batch: 331809**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	58		58.0		mg/L		0	5

**Lab Sample ID: MB 400-331810/1**  
**Matrix: Water**  
**Analysis Batch: 331810**

**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			11/19/16 15:37	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-1  
 SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 400-331810/2**  
**Matrix: Water**  
**Analysis Batch: 331810**

**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: 400-130191-B-2 DU**  
**Matrix: Water**  
**Analysis Batch: 331810**

**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		108		mg/L		0	5

**Lab Sample ID: MB 400-332203/1**  
**Matrix: Water**  
**Analysis Batch: 332203**

**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			11/22/16 19:16	1

**Lab Sample ID: LCS 400-332203/2**  
**Matrix: Water**  
**Analysis Batch: 332203**

**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	292		mg/L		100	78 - 122

**Lab Sample ID: 400-130328-A-3 DU**  
**Matrix: Water**  
**Analysis Batch: 332203**

**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	270		268		mg/L		0.7	5

**Chain of Custody Record**

Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 Sampler: Myles Rogers MR, Andreas Shoredits AS, Jim Morrison JM  
 Lab PM: Whitmore, Cheyenne R  
 Carrier Tracking No(s):  
 Client Contact: Joju Abraham  
 Phone: cheyenne.whitmore@testamericainc.com  
 E-Mail: cheyenne.whitmore@testamericainc.com

**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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Due Date Requested:**  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=bi-tissue, A=air)	Field Filtered Sample (Yes or No)	Performance MS/SD (Yes or No)	Analysis Requested				Special Instructions/Note
							TDS - SM 2540C ; Cl,F,SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	
GWC-6	11/16/16	0940	G	W	N	N	1	1	2	4	Extra radium sample collected for lab QA/QC
GWC-9	11/16/16	1005	G	W	N	N	1	1	1	3	
GWC-7	11/16/16	1120	G	W	N	N	1	1	1	3	
GWC-8	11/16/16	1134	G	W	N	N	1	1	1	3	
FB-2	11/16/16	1152	G	W	N	N	1	1	1	3	
FERB-2	11/16/16	1225	G	W	N	N	1	1	1	3	
GWC-11	11/16/16	1428	G	W	N	N	1	1	1	3	
GWC-12	11/16/16	1555	G	W	N	N	1	1	1	3	
DUP-2	11/16/16	-	G	W	N	N	1	1	1	3	400-130301 COC

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: Please cc: Maria Padilla and Heath McCorkle with results

**Empty Kit Relinquished by:** Date: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

**Relinquished by:** [Signature] Date/Time: 11/17/16 1350 Company: ERM  
 [Signature] Date/Time: 11/17/16 1600 Company: ERM  
 [Signature] Date/Time: 11/18/16 833 Company: TA

**Relinquished by:** [Signature] Date/Time: 11/17/16 1350 Company: TA  
 [Signature] Date/Time: 11/18/16 833 Company: TA

Cooler Temperature(s) and/or other Remarks: 2.0°C IRG  
 Custody Seals Intact: \* Yes  
 Custody Seal No.: 745498



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130301-1  
SDG Number: Gypsum Landfill

**Login Number: 130301**

**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.	True	745998
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	2.0°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 <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 Wansley

TestAmerica Job ID: 400-130301-1  
SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130301-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

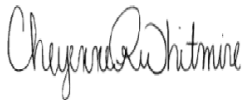
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/30/2016 5:32:13 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

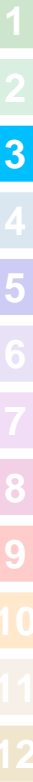
Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

**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 Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130301-1	GWC-6	Water	11/16/16 09:40	11/18/16 08:33
400-130301-2	GWC-9	Water	11/16/16 10:05	11/18/16 08:33
400-130301-3	GWC-7	Water	11/16/16 11:20	11/18/16 08:33
400-130301-4	GWC-8	Water	11/16/16 11:34	11/18/16 08:33
400-130301-5	FB-2	Water	11/16/16 11:52	11/18/16 08:33
400-130301-6	FERB-2	Water	11/16/16 12:25	11/18/16 08:33
400-130301-7	GWC-11	Water	11/16/16 14:28	11/18/16 08:33
400-130301-8	GWC-12	Water	11/16/16 15:55	11/18/16 08:33
400-130301-9	DUP-2	Water	11/16/16 00:00	11/18/16 08:33

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

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 11/16/16 09:40**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00214	U	0.149	0.149	1.00	0.311	pCi/L	11/28/16 10:13	12/29/16 18:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					11/28/16 10:13	12/29/16 18:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0149	U	0.263	0.263	1.00	0.467	pCi/L	11/28/16 13:18	12/28/16 18:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					11/28/16 13:18	12/28/16 18:24	1
Y Carrier	90.8		40 - 110					11/28/16 13:18	12/28/16 18:24	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	0.0128	U	0.302	0.302	5.00	0.467	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-130301-2**

**Date Collected: 11/16/16 10:05**

**Matrix: Water**

**Date Received: 11/18/16 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	0.257	U	0.234	0.236	1.00	0.362	pCi/L	11/28/16 10:13	12/29/16 18:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					11/28/16 10:13	12/29/16 18:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.247	U	0.356	0.357	1.00	0.595	pCi/L	11/28/16 13:18	12/28/16 18:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					11/28/16 13:18	12/28/16 18:25	1
Y Carrier	89.7		40 - 110					11/28/16 13:18	12/28/16 18:25	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	0.504	U	0.427	0.428	5.00	0.595	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Date Collected: 11/16/16 11:20**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-3**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.157	U	0.248	0.249	1.00	0.431	pCi/L	11/28/16 10:13	12/29/16 19:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	48.1		40 - 110					11/28/16 10:13	12/29/16 19:13	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.662	U	0.546	0.549	1.00	0.872	pCi/L	11/28/16 13:18	12/28/16 18:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	48.1		40 - 110					11/28/16 13:18	12/28/16 18:26	1
Y Carrier	86.7		40 - 110					11/28/16 13:18	12/28/16 18:26	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	0.819	U	0.600	0.603	5.00	0.872	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 11/16/16 11:34**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-4**  
**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	-0.0202	U	0.200	0.200	1.00	0.403	pCi/L	11/28/16 10:13	12/29/16 19:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					11/28/16 10:13	12/29/16 19:13	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.649		0.346	0.351	1.00	0.518	pCi/L	11/28/16 13:18	12/28/16 18:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					11/28/16 13:18	12/28/16 18:26	1
Y Carrier	89.3		40 - 110					11/28/16 13:18	12/28/16 18:26	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	0.629		0.399	0.404	5.00	0.518	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 11/16/16 11:52**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-5**  
**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	0.00221	U	0.154	0.154	1.00	0.318	pCi/L	11/28/16 10:13	12/29/16 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.6		40 - 110					11/28/16 10:13	12/29/16 19:16	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.155	U	0.282	0.282	1.00	0.536	pCi/L	11/28/16 13:18	12/28/16 18:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.6		40 - 110					11/28/16 13:18	12/28/16 18:24	1
Y Carrier	80.7		40 - 110					11/28/16 13:18	12/28/16 18:24	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	0.321	0.322	5.00	0.536	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**  
**Date Collected: 11/16/16 12:25**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-6**  
**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	0.110	U	0.157	0.157	1.00	0.266	pCi/L	11/28/16 10:13	12/29/16 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					11/28/16 10:13	12/29/16 19:16	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.238	U	0.274	0.275	1.00	0.452	pCi/L	11/28/16 13:18	12/28/16 18:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					11/28/16 13:18	12/28/16 18:24	1
Y Carrier	89.3		40 - 110					11/28/16 13:18	12/28/16 18:24	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	0.347	U	0.316	0.317	5.00	0.452	pCi/L		12/30/16 11:40	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-11**  
**Date Collected: 11/16/16 14:28**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-7**  
**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	0.646		0.282	0.288	1.00	0.318	pCi/L	11/28/16 10:13	12/29/16 19:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					11/28/16 10:13	12/29/16 19:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.701		0.393	0.398	1.00	0.602	pCi/L	11/28/16 13:18	12/28/16 18:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					11/28/16 13:18	12/28/16 18:24	1
Y Carrier	90.1		40 - 110					11/28/16 13:18	12/28/16 18:24	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	1.35		0.484	0.491	5.00	0.602	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**  
**Date Collected: 11/16/16 15:55**  
**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-8**  
**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	1.59		0.460	0.482	1.00	0.453	pCi/L	11/28/16 10:07	12/29/16 06:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					11/28/16 10:07	12/29/16 06:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.58		0.499	0.598	1.00	0.415	pCi/L	11/28/16 15:20	12/28/16 18:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		40 - 110					11/28/16 15:20	12/28/16 18:18	1
Y Carrier	86.7		40 - 110					11/28/16 15:20	12/28/16 18:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.17		0.679	0.768	5.00	0.453	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Date Collected: 11/16/16 00:00**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-9**

**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	0.371	U	0.291	0.293	1.00	0.434	pCi/L	11/28/16 10:07	12/29/16 06:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					11/28/16 10:07	12/29/16 06:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0870	U	0.318	0.318	1.00	0.551	pCi/L	11/28/16 15:20	12/28/16 18:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					11/28/16 15:20	12/28/16 18:18	1
Y Carrier	87.1		40 - 110					11/28/16 15:20	12/28/16 18:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.458	U	0.431	0.432	5.00	0.551	pCi/L		12/30/16 11:40	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**

**Date Collected: 11/16/16 09:40**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285758	12/29/16 18:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 18:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: GWC-9**

**Date Collected: 11/16/16 10:05**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285758	12/29/16 18:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285727	12/28/16 18:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: GWC-7**

**Date Collected: 11/16/16 11:20**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285758	12/29/16 19:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285727	12/28/16 18:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: GWC-8**

**Date Collected: 11/16/16 11:34**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285758	12/29/16 19:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285727	12/28/16 18:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**

**Lab Sample ID: 400-130301-5**

**Date Collected: 11/16/16 11:52**

**Matrix: Water**

**Date Received: 11/18/16 08:33**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285756	12/29/16 19:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 18:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: FERB-2**

**Lab Sample ID: 400-130301-6**

**Date Collected: 11/16/16 12:25**

**Matrix: Water**

**Date Received: 11/18/16 08:33**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285756	12/29/16 19:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 18:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-130301-7**

**Date Collected: 11/16/16 14:28**

**Matrix: Water**

**Date Received: 11/18/16 08:33**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281188	11/28/16 10:13	CMC	TAL SL
Total/NA	Analysis	9315		1	285757	12/29/16 19:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281229	11/28/16 13:18	CMC	TAL SL
Total/NA	Analysis	9320		1	285701	12/28/16 18:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-130301-8**

**Date Collected: 11/16/16 15:55**

**Matrix: Water**

**Date Received: 11/18/16 08:33**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281185	11/28/16 10:07	CMC	TAL SL
Total/NA	Analysis	9315		1	285756	12/29/16 06:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281250	11/28/16 15:20	MBC	TAL SL
Total/NA	Analysis	9320		1	285700	12/28/16 18:18	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Date Collected: 11/16/16 00:00**

**Date Received: 11/18/16 08:33**

**Lab Sample ID: 400-130301-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281185	11/28/16 10:07	CMC	TAL SL
Total/NA	Analysis	9315		1	285756	12/29/16 06:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281250	11/28/16 15:20	MBC	TAL SL
Total/NA	Analysis	9320		1	285700	12/28/16 18:18	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	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 Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 281185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-8	GWC-12	Total/NA	Water	PrecSep-21	
400-130301-9	DUP-2	Total/NA	Water	PrecSep-21	
MB 160-281185/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281185/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-130328-A-10-A DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 281188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total/NA	Water	PrecSep-21	
400-130301-2	GWC-9	Total/NA	Water	PrecSep-21	
400-130301-3	GWC-7	Total/NA	Water	PrecSep-21	
400-130301-4	GWC-8	Total/NA	Water	PrecSep-21	
400-130301-5	FB-2	Total/NA	Water	PrecSep-21	
400-130301-6	FERB-2	Total/NA	Water	PrecSep-21	
400-130301-7	GWC-11	Total/NA	Water	PrecSep-21	
MB 160-281188/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281188/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-130301-1 DU	GWC-6	Total/NA	Water	PrecSep-21	

### Prep Batch: 281229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-1	GWC-6	Total/NA	Water	PrecSep_0	
400-130301-2	GWC-9	Total/NA	Water	PrecSep_0	
400-130301-3	GWC-7	Total/NA	Water	PrecSep_0	
400-130301-4	GWC-8	Total/NA	Water	PrecSep_0	
400-130301-5	FB-2	Total/NA	Water	PrecSep_0	
400-130301-6	FERB-2	Total/NA	Water	PrecSep_0	
400-130301-7	GWC-11	Total/NA	Water	PrecSep_0	
MB 160-281229/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-281229/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-130301-1 DU	GWC-6	Total/NA	Water	PrecSep_0	

### Prep Batch: 281250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130301-8	GWC-12	Total/NA	Water	PrecSep_0	
400-130301-9	DUP-2	Total/NA	Water	PrecSep_0	
MB 160-281250/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-281250/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-130328-A-10-B DU	Duplicate	Total/NA	Water	PrecSep_0	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-281185/1-A**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281185**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1905	U	0.249	0.249	1.00	0.415	pCi/L	11/28/16 10:07	12/29/16 06:55	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.5		40 - 110					11/28/16 10:07	12/29/16 06:55	1

**Lab Sample ID: LCS 160-281185/2-A**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281185**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	15.06		1.86	1.00	0.359	pCi/L	136	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	75.8		40 - 110						

**Lab Sample ID: 400-130328-A-10-A DU**  
**Matrix: Water**  
**Analysis Batch: 285758**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 281185**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.218	U	-0.00260	U	0.181	1.00	0.378	pCi/L	0.51	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	76.4		40 - 110							

**Lab Sample ID: MB 160-281188/1-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281188**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02091	U	0.155	0.155	1.00	0.334	pCi/L	11/28/16 10:13	12/29/16 15:30	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.6		40 - 110					11/28/16 10:13	12/29/16 15:30	1

**Lab Sample ID: LCS 160-281188/2-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281188**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.64		1.77	1.00	0.294	pCi/L	132	68 - 137

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-281188/2-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281188**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	71.2		40 - 110

**Lab Sample ID: 400-130301-1 DU**  
**Matrix: Water**  
**Analysis Batch: 285758**

**Client Sample ID: GWC-6**  
**Prep Type: Total/NA**  
**Prep Batch: 281188**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	-0.00214	U	0.1444	U	0.199	1.00	0.335	pCi/L	0.42	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	69.5		40 - 110

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

**Lab Sample ID: MB 160-281229/1-A**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281229**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4101	U	0.333	0.336	1.00	0.530	pCi/L	11/28/16 13:18	12/28/16 18:23	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	72.6		40 - 110	11/28/16 13:18	12/28/16 18:23	1
Y Carrier	85.2		40 - 110	11/28/16 13:18	12/28/16 18:23	1

**Lab Sample ID: LCS 160-281229/2-A**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281229**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	15.52		1.74	1.00	0.528	pCi/L	110	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	71.2		40 - 110
Y Carrier	86.0		40 - 110

**Lab Sample ID: 400-130301-1 DU**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: GWC-6**  
**Prep Type: Total/NA**  
**Prep Batch: 281229**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0149	U	0.07701	U	0.262	1.00	0.462	pCi/L	0.12	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130301-1 DU**  
**Matrix: Water**  
**Analysis Batch: 285701**

**Client Sample ID: GWC-6**  
**Prep Type: Total/NA**  
**Prep Batch: 281229**

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	69.5		40 - 110
Y Carrier	87.9		40 - 110

**Lab Sample ID: MB 160-281250/1-A**  
**Matrix: Water**  
**Analysis Batch: 285700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281250**

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.2074	U	0.342	0.343	1.00	0.577	pCi/L	11/28/16 15:20	12/28/16 18:18	1
Carrier	MB	MB	Limits				Prepared	Analyzed	Dil Fac	
Ba Carrier	67.5		40 - 110				11/28/16 15:20	12/28/16 18:18	1	
Y Carrier	83.7		40 - 110				11/28/16 15:20	12/28/16 18:18	1	

**Lab Sample ID: LCS 160-281250/2-A**  
**Matrix: Water**  
**Analysis Batch: 285700**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281250**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									%Rec	Limits
Radium-228	14.1	15.31		1.70	1.00	0.469	pCi/L	109	56 - 140	
Carrier	LCS	LCS	Limits							
Ba Carrier	75.8		40 - 110							
Y Carrier	87.9		40 - 110							

**Lab Sample ID: 400-130328-A-10-B DU**  
**Matrix: Water**  
**Analysis Batch: 285700**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 281250**

Analyte	Sample Sample		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
	Result	Qual								
Radium-228	0.475	U	0.1079	U	0.280	1.00	0.483	pCi/L	0.61	1
Carrier	DU	DU	Limits							
Ba Carrier	76.4		40 - 110							
Y Carrier	86.0		40 - 110							

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
 SDG: Gypsum Landfill

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

Lab Sample ID: 400-130301-1 DU  
 Matrix: Water  
 Analysis Batch: 285903

Client Sample ID: GWC-6  
 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	0.0128	U	0.2215	U	0.329	5.00	0.462	pCi/L	0.33	

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**Chain of Custody Record**

Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

<b>Client Information</b> Sampler: Myles Rogers MR, Andreas Shoredits AS, Jim Morrison JM Lab PM: Whitmore, Cheyenne R 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: Plant Wansley - Gypsum Landfill Site: CCR		Carrier Tracking No(s): Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		Analysis Requested	
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - D1 Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)		Total Number of Containers Special Instructions/Note: Extra radium sample collected for lab QA/QC	
<b>Sample Identification</b> Sample ID: GWC-6 Matrix: W (Water, Solid, O-waste, Oil, BT-Tissue, A-UP) Sample Type: G (Grab) Sample Date: 11/16/16 Sample Time: 0940 Preservation Code: D		Field Filled Sample (Yes or No) <input checked="" type="checkbox"/> N TDS - SM 2540C; Cl, F, SO4 - EPA 300 Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320	
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: Maria Padilla and Heath McCorkle with results	
Empty Kit Relinquished by: Relinquished by: [Signature] Date: 11/17/16 1350 Company: ERM		Method of Shipment: Received by: [Signature] Date/Time: 11/17/16 1350 Company: TA	
Relinquished by: [Signature] Date/Time: 11/17/16 1600 Company: TA		Relinquished by: [Signature] Date/Time: 11/18/16 833 Company: TA	
Relinquished by: [Signature]		Relinquished by: [Signature]	
Custody Seals Intact: * Yes		Cooler Temperature(s) and/or other Remarks: 2.0°C	



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130301-2  
SDG Number: Gypsum Landfill

**Login Number: 130301**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	745998
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	2.0°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 Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130301-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

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: 400-130400-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/9/2016 3:00:12 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

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**Job ID: 400-130400-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative  
400-130400-1**

**HPLC/IC**

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-14 (400-130400-5). Elevated reporting limits (RLs) are provided.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-33

## Lab Sample ID: 400-130400-1

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	4.1		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00046	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	0.023	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	55		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0034		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0032		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0016	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Thallium	0.00017	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-130400-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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
Sulfate	2.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-130400-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.76		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	40		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	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0095		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.012		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-16

## Lab Sample ID: 400-130400-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-16 (Continued)

## Lab Sample ID: 400-130400-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	J	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: GWC-14

## Lab Sample ID: 400-130400-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	180		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	18		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.27		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00055	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	1.0		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	46		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.010		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0056		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00047	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00041	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.000087	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-130400-6

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
Sulfate	0.83	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0072		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0061		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-130400-7

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
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.5		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 Wansley

TestAmerica Job ID: 400-130400-1  
 SDG: Gypsum Landfill

## Client Sample ID: GWC-18 (Continued)

## Lab Sample ID: 400-130400-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0034	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-17

## Lab Sample ID: 400-130400-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.75	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-130400-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-21

## Lab Sample ID: 400-130400-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.0		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000084	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	34		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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130400-1	GWC-33	Water	11/17/16 08:47	11/19/16 09:18
400-130400-2	GWC-13	Water	11/17/16 09:10	11/19/16 09:18
400-130400-3	GWC-10	Water	11/17/16 09:45	11/19/16 09:18
400-130400-4	GWC-16	Water	11/17/16 10:10	11/19/16 09:18
400-130400-5	GWC-14	Water	11/17/16 10:48	11/19/16 09:18
400-130400-6	GWC-15	Water	11/17/16 11:30	11/19/16 09:18
400-130400-7	GWC-18	Water	11/17/16 11:39	11/19/16 09:18
400-130400-8	GWC-17	Water	11/17/16 12:28	11/19/16 09:18
400-130400-9	GWC-19	Water	11/17/16 13:05	11/19/16 09:18
400-130400-10	GWC-21	Water	11/17/16 14:20	11/19/16 09:18

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**  
**Date Collected: 11/17/16 08:47**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-1**  
**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			12/01/16 08:34	1
Fluoride	4.1		0.20	0.082	mg/L			12/01/16 08:34	1
Sulfate	22		1.0	0.70	mg/L			12/01/16 08:34	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		11/22/16 13:00	11/23/16 15:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:00	11/23/16 15:48	5
Barium	0.014		0.0025	0.00049	mg/L		11/22/16 13:00	11/23/16 15:48	5
Beryllium	0.00046	J	0.0025	0.00034	mg/L		11/22/16 13:00	11/23/16 15:48	5
Boron	0.023	J	0.050	0.021	mg/L		11/22/16 13:00	11/23/16 15:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:00	11/23/16 15:48	5
Calcium	55		0.25	0.13	mg/L		11/22/16 13:00	11/23/16 15:48	5
Chromium	0.0034		0.0025	0.0011	mg/L		11/22/16 13:00	11/23/16 15:48	5
Cobalt	0.0032		0.0025	0.00040	mg/L		11/22/16 13:00	11/23/16 15:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:00	11/23/16 15:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:00	11/23/16 15:48	5
Molybdenum	0.0016	J	0.015	0.00085	mg/L		11/22/16 13:00	11/23/16 15:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:00	11/23/16 15:48	5
Thallium	0.00017	J	0.00050	0.000085	mg/L		11/22/16 13:00	11/23/16 15:48	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		11/30/16 16:09	12/01/16 14:36	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			11/22/16 18:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Date Collected: 11/17/16 09:10**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			12/01/16 08:57	1
Fluoride	0.092	J	0.20	0.082	mg/L			12/01/16 08:57	1
Sulfate	2.2		1.0	0.70	mg/L			12/01/16 08:57	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		11/22/16 13:05	11/25/16 15:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 15:53	5
Barium	0.0027		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 15:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 15:53	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 15:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 15:53	5
Calcium	3.5		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 15:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 15:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 15:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 15:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 15:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 15:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 15:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 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		11/30/16 16:09	12/01/16 15:03	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			11/22/16 18:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Date Collected: 11/17/16 09:45**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-3**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.9		1.0	0.89	mg/L			12/01/16 09:20	1
Fluoride	0.76		0.20	0.082	mg/L			12/01/16 09:20	1
Sulfate	40		1.0	0.70	mg/L			12/01/16 09:20	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		11/22/16 13:05	11/25/16 16:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 16:16	5
Barium	0.028		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 16:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:16	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 16:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:16	5
Calcium	29		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 16:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 16:16	5
Cobalt	0.0095		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 16:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 16:16	5
Lithium	0.012		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 16:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 16:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 16:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 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		11/30/16 16:09	12/01/16 15:04	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			11/22/16 18:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**  
**Date Collected: 11/17/16 10:10**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-4**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.4</b>		1.0	0.89	mg/L			12/01/16 09:43	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 09:43	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 09:43	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		11/22/16 13:05	11/25/16 16:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 16:20	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 16:20	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:20	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 16:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:20	5
<b>Calcium</b>	<b>6.3</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 16:20	5
<b>Chromium</b>	<b>0.0022 J</b>		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 16:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 16:20	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 16:20	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 16:20	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 16:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 16:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 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		11/30/16 16:09	12/01/16 15:05	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			11/22/16 18:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**  
**Date Collected: 11/17/16 10:48**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-5**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>180</b>		5.0	4.5	mg/L			12/01/16 17:27	5
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 10:51	1
<b>Sulfate</b>	<b>18</b>		1.0	0.70	mg/L			12/06/16 17:43	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		11/22/16 13:05	11/25/16 16:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Barium</b>	<b>0.27</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Beryllium</b>	<b>0.00055</b>	<b>J</b>	0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Boron</b>	<b>1.0</b>		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 16:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Calcium</b>	<b>46</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 16:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Cobalt</b>	<b>0.010</b>		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 16:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Lithium</b>	<b>0.0056</b>		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 16:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Selenium</b>	<b>0.00047</b>	<b>J</b>	0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 16:25	5
<b>Thallium</b>	<b>0.00041</b>	<b>J</b>	0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 16:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000087</b>	<b>J</b>	0.00020	0.000070	mg/L		11/30/16 16:09	12/01/16 15:06	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>440</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Date Collected: 11/17/16 11:30**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-6**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.5</b>		1.0	0.89	mg/L			12/01/16 11:14	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 11:14	1
<b>Sulfate</b>	<b>0.83</b>	<b>J</b>	1.0	0.70	mg/L			12/06/16 18:06	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		11/22/16 13:05	11/25/16 16:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 16:29	5
<b>Barium</b>	<b>0.0072</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 16:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:29	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 16:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:29	5
<b>Calcium</b>	<b>6.1</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 16:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 16:29	5
<b>Cobalt</b>	<b>0.0010</b>	<b>J</b>	0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 16:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 16:29	5
<b>Lithium</b>	<b>0.0061</b>		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 16:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 16:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 16:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 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		11/30/16 16:09	12/01/16 15:07	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>46</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**  
**Date Collected: 11/17/16 11:39**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-7**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			12/01/16 18:13	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 18:13	1
Sulfate	<0.70		1.0	0.70	mg/L			12/06/16 04:42	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		11/22/16 13:05	11/25/16 16:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 16:34	5
<b>Barium</b>	<b>0.033</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 16:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:34	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 16:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 16:34	5
<b>Calcium</b>	<b>5.5</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 16:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 16:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 16:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 16:34	5
<b>Lithium</b>	<b>0.0034 J</b>		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 16:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 16:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 16:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 16:34	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		11/30/16 16:09	12/01/16 15:09	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>42</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**  
**Date Collected: 11/17/16 12:28**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-8**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			12/01/16 18:36	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 18:36	1
<b>Sulfate</b>	<b>0.75</b>	<b>J</b>	1.0	0.70	mg/L			12/06/16 05:05	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		11/22/16 13:05	11/25/16 17:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 17:01	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 17:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 17:01	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 17:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 17:01	5
<b>Calcium</b>	<b>7.5</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 17:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 17:01	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 17:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 17:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 17:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 17:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 17:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 17:01	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		11/30/16 16:09	12/01/16 15:10	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>74</b>		5.0	3.4	mg/L			11/23/16 15:39	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**  
**Date Collected: 11/17/16 13:05**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-9**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.4</b>		1.0	0.89	mg/L			12/01/16 18:59	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 18:59	1
Sulfate	<0.70		1.0	0.70	mg/L			12/06/16 05:28	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		11/22/16 13:05	11/25/16 17:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 17:05	5
<b>Barium</b>	<b>0.046</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 17:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 17:05	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 17:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 17:05	5
<b>Calcium</b>	<b>4.1</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 17:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 17:05	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 17:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 17:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 17:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 17:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 17:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 17:05	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		11/30/16 16:09	12/01/16 15:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>34</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**  
**Date Collected: 11/17/16 14:20**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-10**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.0</b>		1.0	0.89	mg/L			12/01/16 19:44	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 19:44	1
Sulfate	<0.70		1.0	0.70	mg/L			12/06/16 06:14	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		11/22/16 13:05	11/25/16 17:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 17:10	5
<b>Barium</b>	<b>0.012</b>		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 17:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 17:10	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 17:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 17:10	5
<b>Calcium</b>	<b>2.8</b>		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 17:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 17:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 17:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 17:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 17:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 17:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 17:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 17:10	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000084</b>	<b>J</b>	0.00020	0.000070	mg/L		11/30/16 16:09	12/01/16 15:12	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>34</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## 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.
*	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.

## 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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 11/17/16 08:47**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 08:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332122	11/22/16 13:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 15:48	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 14:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332188	11/22/16 18:09	RRC	TAL PEN

**Client Sample ID: GWC-13**

**Date Collected: 11/17/16 09:10**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 08:57	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 15:53	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332188	11/22/16 18:09	RRC	TAL PEN

**Client Sample ID: GWC-10**

**Date Collected: 11/17/16 09:45**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 09:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 16:16	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332188	11/22/16 18:09	RRC	TAL PEN

**Client Sample ID: GWC-16**

**Date Collected: 11/17/16 10:10**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 09:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 16:20	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332188	11/22/16 18:09	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-130400-5**

**Date Collected: 11/17/16 10:48**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 10:51	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	333332	12/01/16 17:27	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333953	12/06/16 17:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 16:25	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-130400-6**

**Date Collected: 11/17/16 11:30**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333261	12/01/16 11:14	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333953	12/06/16 18:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 16:29	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-130400-7**

**Date Collected: 11/17/16 11:39**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 18:13	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333877	12/06/16 04:42	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 16:34	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-130400-8**

**Date Collected: 11/17/16 12:28**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 18:36	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333877	12/06/16 05:05	TAJ	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-130400-8**

**Date Collected: 11/17/16 12:28**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 17:01	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-130400-9**

**Date Collected: 11/17/16 13:05**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 18:59	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333877	12/06/16 05:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 17:05	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-130400-10**

**Date Collected: 11/17/16 14:20**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 19:44	TAJ	TAL PEN
Total/NA	Analysis	300.0		1	333877	12/06/16 06:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332156	11/22/16 13:05	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 17:10	AJR	TAL PEN
Total/NA	Prep	7470A			333195	11/30/16 16:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 15:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total/NA	Water	300.0	
400-130400-2	GWC-13	Total/NA	Water	300.0	
400-130400-3	GWC-10	Total/NA	Water	300.0	
400-130400-4	GWC-16	Total/NA	Water	300.0	
400-130400-5	GWC-14	Total/NA	Water	300.0	
400-130400-6	GWC-15	Total/NA	Water	300.0	
MB 400-333261/86	Method Blank	Total/NA	Water	300.0	
LCS 400-333261/87	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333261/88	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130029-A-16 MS	Matrix Spike	Total/NA	Water	300.0	
400-130029-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 333332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-5	GWC-14	Total/NA	Water	300.0	
400-130400-7	GWC-18	Total/NA	Water	300.0	
400-130400-8	GWC-17	Total/NA	Water	300.0	
400-130400-9	GWC-19	Total/NA	Water	300.0	
400-130400-10	GWC-21	Total/NA	Water	300.0	
MB 400-333332/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333332/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333332/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130755-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130755-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 333877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-7	GWC-18	Total/NA	Water	300.0	
400-130400-8	GWC-17	Total/NA	Water	300.0	
400-130400-9	GWC-19	Total/NA	Water	300.0	
400-130400-10	GWC-21	Total/NA	Water	300.0	
MB 400-333877/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333877/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333877/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130805-I-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130805-I-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 333953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-5	GWC-14	Total/NA	Water	300.0	
400-130400-6	GWC-15	Total/NA	Water	300.0	
MB 400-333953/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333953/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333953/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130301-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-130301-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Metals

### Prep Batch: 332122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total Recoverable	Water	3005A	
MB 400-332122/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-332122/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130361-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130361-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 332156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-2	GWC-13	Total Recoverable	Water	3005A	
400-130400-3	GWC-10	Total Recoverable	Water	3005A	
400-130400-4	GWC-16	Total Recoverable	Water	3005A	
400-130400-5	GWC-14	Total Recoverable	Water	3005A	
400-130400-6	GWC-15	Total Recoverable	Water	3005A	
400-130400-7	GWC-18	Total Recoverable	Water	3005A	
400-130400-8	GWC-17	Total Recoverable	Water	3005A	
400-130400-9	GWC-19	Total Recoverable	Water	3005A	
400-130400-10	GWC-21	Total Recoverable	Water	3005A	
MB 400-332156/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-332156/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130400-2 MS	GWC-13	Total Recoverable	Water	3005A	
400-130400-2 MSD	GWC-13	Total Recoverable	Water	3005A	

### Analysis Batch: 332368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total Recoverable	Water	6020	332122
MB 400-332122/1-A ^5	Method Blank	Total Recoverable	Water	6020	332122
LCS 400-332122/2-A	Lab Control Sample	Total Recoverable	Water	6020	332122
400-130361-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	332122
400-130361-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	332122

### Analysis Batch: 332706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-2	GWC-13	Total Recoverable	Water	6020	332156
400-130400-3	GWC-10	Total Recoverable	Water	6020	332156
400-130400-4	GWC-16	Total Recoverable	Water	6020	332156
400-130400-5	GWC-14	Total Recoverable	Water	6020	332156
400-130400-6	GWC-15	Total Recoverable	Water	6020	332156
400-130400-7	GWC-18	Total Recoverable	Water	6020	332156
400-130400-8	GWC-17	Total Recoverable	Water	6020	332156
400-130400-9	GWC-19	Total Recoverable	Water	6020	332156
400-130400-10	GWC-21	Total Recoverable	Water	6020	332156
MB 400-332156/1-A ^5	Method Blank	Total Recoverable	Water	6020	332156
LCS 400-332156/2-A	Lab Control Sample	Total Recoverable	Water	6020	332156
400-130400-2 MS	GWC-13	Total Recoverable	Water	6020	332156
400-130400-2 MSD	GWC-13	Total Recoverable	Water	6020	332156

### Prep Batch: 333195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total/NA	Water	7470A	
400-130400-2	GWC-13	Total/NA	Water	7470A	
400-130400-3	GWC-10	Total/NA	Water	7470A	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 333195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-4	GWC-16	Total/NA	Water	7470A	
400-130400-5	GWC-14	Total/NA	Water	7470A	
400-130400-6	GWC-15	Total/NA	Water	7470A	
400-130400-7	GWC-18	Total/NA	Water	7470A	
400-130400-8	GWC-17	Total/NA	Water	7470A	
400-130400-9	GWC-19	Total/NA	Water	7470A	
400-130400-10	GWC-21	Total/NA	Water	7470A	
MB 400-333195/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-333195/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130400-1 MS	GWC-33	Total/NA	Water	7470A	
400-130400-1 MSD	GWC-33	Total/NA	Water	7470A	

### Analysis Batch: 333380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total/NA	Water	7470A	333195
400-130400-2	GWC-13	Total/NA	Water	7470A	333195
400-130400-3	GWC-10	Total/NA	Water	7470A	333195
400-130400-4	GWC-16	Total/NA	Water	7470A	333195
400-130400-5	GWC-14	Total/NA	Water	7470A	333195
400-130400-6	GWC-15	Total/NA	Water	7470A	333195
400-130400-7	GWC-18	Total/NA	Water	7470A	333195
400-130400-8	GWC-17	Total/NA	Water	7470A	333195
400-130400-9	GWC-19	Total/NA	Water	7470A	333195
400-130400-10	GWC-21	Total/NA	Water	7470A	333195
MB 400-333195/14-A	Method Blank	Total/NA	Water	7470A	333195
LCS 400-333195/15-A	Lab Control Sample	Total/NA	Water	7470A	333195
400-130400-1 MS	GWC-33	Total/NA	Water	7470A	333195
400-130400-1 MSD	GWC-33	Total/NA	Water	7470A	333195

## General Chemistry

### Analysis Batch: 332188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total/NA	Water	SM 2540C	
400-130400-2	GWC-13	Total/NA	Water	SM 2540C	
400-130400-3	GWC-10	Total/NA	Water	SM 2540C	
400-130400-4	GWC-16	Total/NA	Water	SM 2540C	
MB 400-332188/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-332188/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129669-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 332379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-5	GWC-14	Total/NA	Water	SM 2540C	
400-130400-6	GWC-15	Total/NA	Water	SM 2540C	
400-130400-7	GWC-18	Total/NA	Water	SM 2540C	
400-130400-8	GWC-17	Total/NA	Water	SM 2540C	
400-130400-9	GWC-19	Total/NA	Water	SM 2540C	
400-130400-10	GWC-21	Total/NA	Water	SM 2540C	
MB 400-332379/1	Method Blank	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## General Chemistry (Continued)

### Analysis Batch: 332379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-332379/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130400-8 DU	GWC-17	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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333261/86**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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			11/30/16 23:26	1
Fluoride	<0.082		0.20	0.082	mg/L			11/30/16 23:26	1
Sulfate	<0.70		1.0	0.70	mg/L			11/30/16 23:26	1

**Lab Sample ID: LCS 400-333261/87**  
**Matrix: Water**  
**Analysis Batch: 333261**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.96		mg/L		100	90 - 110
Fluoride	10.0	9.63		mg/L		96	90 - 110
Sulfate	10.0	9.46		mg/L		95	90 - 110

**Lab Sample ID: LCSD 400-333261/88**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	2	15
Fluoride	10.0	9.68		mg/L		97	90 - 110	1	15
Sulfate	10.0	9.78		mg/L		98	90 - 110	3	15

**Lab Sample ID: 400-130029-A-16 MS**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	14.0		mg/L		105	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	14		10.0	24.6		mg/L		105	80 - 120

**Lab Sample ID: 400-130029-A-16 MSD**  
**Matrix: Water**  
**Analysis Batch: 333261**

**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	14.0		mg/L		105	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	1	20
Sulfate	14		10.0	24.6		mg/L		105	80 - 120	0	20

**Lab Sample ID: MB 400-333332/4**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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			12/01/16 11:37	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 11:37	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 11:37	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-333332/5**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.91		mg/L		99	90 - 110
Sulfate	10.0	9.61		mg/L		96	90 - 110

**Lab Sample ID: LCSD 400-333332/6**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.92		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.61		mg/L		96	90 - 110	0	15

**Lab Sample ID: 400-130755-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	293	E 4	mg/L		28	80 - 120
Fluoride	0.14	J	10.0	10.6		mg/L		105	80 - 120
Sulfate	500	E	10.0	507	E 4	mg/L		80	80 - 120

**Lab Sample ID: 400-130755-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	295	E 4	mg/L		49	80 - 120	1	20
Fluoride	0.14	J	10.0	10.6		mg/L		104	80 - 120	0	20
Sulfate	500	E	10.0	512	E 4	mg/L		124	80 - 120	1	20

**Lab Sample ID: MB 400-333877/4**  
**Matrix: Water**  
**Analysis Batch: 333877**

**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			12/05/16 23:00	1
Fluoride	<0.082		0.20	0.082	mg/L			12/05/16 23:00	1
Sulfate	<0.70		1.0	0.70	mg/L			12/05/16 23:00	1

**Lab Sample ID: LCS 400-333877/5**  
**Matrix: Water**  
**Analysis Batch: 333877**

**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	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-333877/6**  
**Matrix: Water**  
**Analysis Batch: 333877**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	0	15
Fluoride	10.0	11.2	*	mg/L		112	90 - 110	7	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	2	15

**Lab Sample ID: 400-130805-I-4 MS**  
**Matrix: Water**  
**Analysis Batch: 333877**

**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	12		100	110		mg/L		98	80 - 120		
Fluoride	<0.82	*	100	105		mg/L		105	80 - 120		
Sulfate	350		100	460		mg/L		111	80 - 120		

**Lab Sample ID: 400-130805-I-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 333877**

**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	12		100	110		mg/L		98	80 - 120	0	20
Fluoride	<0.82	*	100	112		mg/L		112	80 - 120	7	20
Sulfate	350		100	460		mg/L		111	80 - 120	0	20

**Lab Sample ID: MB 400-333953/4**  
**Matrix: Water**  
**Analysis Batch: 333953**

**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			12/06/16 11:55	1
Fluoride	<0.082		0.20	0.082	mg/L			12/06/16 11:55	1
Sulfate	<0.70		1.0	0.70	mg/L			12/06/16 11:55	1

**Lab Sample ID: LCS 400-333953/5**  
**Matrix: Water**  
**Analysis Batch: 333953**

**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	10.1		mg/L		101	90 - 110		
Fluoride	10.0	10.4		mg/L		104	90 - 110		
Sulfate	10.0	10.6		mg/L		106	90 - 110		

**Lab Sample ID: LCSD 400-333953/6**  
**Matrix: Water**  
**Analysis Batch: 333953**

**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	11.1	*	mg/L		111	90 - 110	7	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	2	15

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 400-130301-A-3 MS**

**Matrix: Water**

**Analysis Batch: 333953**

**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	31		50.0	78.4		mg/L		95	80 - 120
Fluoride	<0.41	*	50.0	52.2		mg/L		104	80 - 120
Sulfate	89		50.0	139		mg/L		100	80 - 120

**Lab Sample ID: 400-130301-A-3 MSD**

**Matrix: Water**

**Analysis Batch: 333953**

**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	31		50.0	78.6		mg/L		95	80 - 120	0	20
Fluoride	<0.41	*	50.0	56.1		mg/L		112	80 - 120	7	20
Sulfate	89		50.0	139		mg/L		99	80 - 120	0	20

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

**Lab Sample ID: MB 400-332122/1-A ^5**

**Matrix: Water**

**Analysis Batch: 332368**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 332122**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/22/16 13:00	11/23/16 11:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:00	11/23/16 11:37	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/22/16 13:00	11/23/16 11:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:00	11/23/16 11:37	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:00	11/23/16 11:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:00	11/23/16 11:37	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 13:00	11/23/16 11:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:00	11/23/16 11:37	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:00	11/23/16 11:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:00	11/23/16 11:37	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:00	11/23/16 11:37	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:00	11/23/16 11:37	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:00	11/23/16 11:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:00	11/23/16 11:37	5

**Lab Sample ID: LCS 400-332122/2-A**

**Matrix: Water**

**Analysis Batch: 332368**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 332122**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0517		mg/L		103	80 - 120
Arsenic	0.0500	0.0493		mg/L		99	80 - 120
Barium	0.0500	0.0490		mg/L		98	80 - 120
Beryllium	0.0500	0.0452		mg/L		90	80 - 120
Boron	0.100	0.0974		mg/L		97	80 - 120
Cadmium	0.0500	0.0496		mg/L		99	80 - 120
Calcium	5.00	4.77		mg/L		95	80 - 120
Chromium	0.0500	0.0486		mg/L		97	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 400-332122/2-A**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332122**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0490		mg/L		98	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Lithium	0.0500	0.0499		mg/L		100	80 - 120
Molybdenum	0.0500	0.0498		mg/L		100	80 - 120
Selenium	0.0500	0.0488		mg/L		98	80 - 120
Thallium	0.0100	0.00994		mg/L		99	80 - 120

**Lab Sample ID: 400-130361-B-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332122**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0525		mg/L		105	75 - 125
Arsenic	<0.00046		0.0500	0.0507		mg/L		101	75 - 125
Barium	0.17		0.0500	0.225		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0461		mg/L		92	75 - 125
Boron	<0.021		0.100	0.103		mg/L		103	75 - 125
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125
Calcium	4.8		5.00	9.62		mg/L		97	75 - 125
Chromium	<0.0011		0.0500	0.0493		mg/L		99	75 - 125
Cobalt	0.0035		0.0500	0.0533		mg/L		100	75 - 125
Lead	<0.00035		0.0500	0.0498		mg/L		100	75 - 125
Lithium	<0.0032		0.0500	0.0492		mg/L		98	75 - 125
Molybdenum	<0.00085		0.0500	0.0503		mg/L		101	75 - 125
Selenium	<0.00024		0.0500	0.0483		mg/L		97	75 - 125
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125

**Lab Sample ID: 400-130361-B-1-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332122**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0522		mg/L		104	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0500		mg/L		100	75 - 125	1	20
Barium	0.17		0.0500	0.224		mg/L		100	75 - 125	0	20
Beryllium	<0.00034		0.0500	0.0477		mg/L		95	75 - 125	4	20
Boron	<0.021		0.100	0.105		mg/L		105	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125	0	20
Calcium	4.8		5.00	9.51		mg/L		95	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0499		mg/L		100	75 - 125	1	20
Cobalt	0.0035		0.0500	0.0532		mg/L		99	75 - 125	0	20
Lead	<0.00035		0.0500	0.0497		mg/L		99	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0533		mg/L		107	75 - 125	8	20
Molybdenum	<0.00085		0.0500	0.0503		mg/L		101	75 - 125	0	20
Selenium	<0.00024		0.0500	0.0496		mg/L		99	75 - 125	3	20
Thallium	<0.00085		0.0100	0.00983		mg/L		98	75 - 125	3	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-332156/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332156**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/22/16 13:05	11/25/16 14:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 13:05	11/25/16 14:50	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/22/16 13:05	11/25/16 14:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 14:50	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 13:05	11/25/16 14:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 13:05	11/25/16 14:50	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 13:05	11/25/16 14:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 13:05	11/25/16 14:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 13:05	11/25/16 14:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 13:05	11/25/16 14:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 13:05	11/25/16 14:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 13:05	11/25/16 14:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 13:05	11/25/16 14:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 13:05	11/25/16 14:50	5

**Lab Sample ID: LCS 400-332156/2-A**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332156**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0506		mg/L		101	80 - 120
Arsenic	0.0500	0.0516		mg/L		103	80 - 120
Barium	0.0500	0.0504		mg/L		101	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	0.100	0.0947		mg/L		95	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	5.00	4.88		mg/L		98	80 - 120
Chromium	0.0500	0.0486		mg/L		97	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Selenium	0.0500	0.0500		mg/L		100	80 - 120
Thallium	0.0100	0.00999		mg/L		100	80 - 120

**Lab Sample ID: 400-130400-2 MS**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: GWC-13**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332156**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0527		mg/L		105	75 - 125
Arsenic	<0.00046		0.0500	0.0532		mg/L		106	75 - 125
Barium	0.0027		0.0500	0.0537		mg/L		102	75 - 125
Beryllium	<0.00034		0.0500	0.0501		mg/L		100	75 - 125
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125
Cadmium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125
Calcium	3.5		5.00	8.33		mg/L		97	75 - 125
Chromium	<0.0011		0.0500	0.0501		mg/L		100	75 - 125

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130400-2 MS**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: GWC-13**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332156**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	<0.00040		0.0500	0.0513		mg/L		103	75 - 125
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125
Lithium	<0.0032		0.0500	0.0564		mg/L		113	75 - 125
Molybdenum	<0.00085		0.0500	0.0505		mg/L		101	75 - 125
Selenium	<0.00024		0.0500	0.0501		mg/L		100	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125

**Lab Sample ID: 400-130400-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: GWC-13**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332156**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0515		mg/L		103	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0528		mg/L		106	75 - 125	1	20
Barium	0.0027		0.0500	0.0544		mg/L		103	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0501		mg/L		100	75 - 125	0	20
Boron	<0.021		0.100	0.104		mg/L		104	75 - 125	5	20
Cadmium	<0.00034		0.0500	0.0520		mg/L		104	75 - 125	1	20
Calcium	3.5		5.00	8.43		mg/L		99	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0500		mg/L		100	75 - 125	0	20
Cobalt	<0.00040		0.0500	0.0503		mg/L		101	75 - 125	2	20
Lead	<0.00035		0.0500	0.0497		mg/L		99	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0542		mg/L		108	75 - 125	4	20
Molybdenum	<0.00085		0.0500	0.0510		mg/L		102	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0513		mg/L		103	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	0	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-333195/14-A**  
**Matrix: Water**  
**Analysis Batch: 333380**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 333195**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/30/16 16:05	12/01/16 14:34	1

**Lab Sample ID: LCS 400-333195/15-A**  
**Matrix: Water**  
**Analysis Batch: 333380**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 333195**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000969		mg/L		96	80 - 120

**Lab Sample ID: 400-130400-1 MS**  
**Matrix: Water**  
**Analysis Batch: 333380**

**Client Sample ID: GWC-33**  
**Prep Type: Total/NA**  
**Prep Batch: 333195**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00168		mg/L		84	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

**Lab Sample ID: 400-130400-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 333388**

**Client Sample ID: GWC-33**  
**Prep Type: Total/NA**  
**Prep Batch: 333195**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00186		mg/L		92	80 - 120	10	20

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

**Lab Sample ID: MB 400-332188/1**  
**Matrix: Water**  
**Analysis Batch: 332188**

**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			11/22/16 18:09	1

**Lab Sample ID: LCS 400-332188/2**  
**Matrix: Water**  
**Analysis Batch: 332188**

**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	268		mg/L		91	78 - 122

**Lab Sample ID: 400-129669-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 332188**

**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	550000		550000		mg/L		0.4	5

**Lab Sample ID: MB 400-332379/1**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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			11/23/16 15:39	1

**Lab Sample ID: LCS 400-332379/2**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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: 400-130400-8 DU**  
**Matrix: Water**  
**Analysis Batch: 332379**

**Client Sample ID: GWC-17**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	74		74.0		mg/L		0	5

Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

Sampler: Myles Rogers HR, Andreas Shorecits AS, Jim Morrison JR Taylor Payne TP  
Lab PVI: Whitmire, Cheyenne R  
Phone: Jolu Abraham  
E-Mail: cheyenne.whitmire@testamericainc.com

Carmer Tracking No(s):  
COC No: 400-130400 COC  
Page:  
Job #:

**Client Information**

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: Plant Wansley - Gypsum Landfill  
Site: CCR

**Analysis Requested**

Due Date Requested:	
TAT Requested (days):	
PO #:	
WG #:	
Project #:	
SSOW#:	

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)	Performance (MSD) (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWC-33	11/17/16	0847	G	W	X	X	1	1	1	3	
GWC-13	11/17/16	0910	G	W	N	N	1	1	2	4	Extra Radium sample collected for lab QA/QC
GWC-10	11/17/16	0945	G	W	N	N	1	1	1	3	
GWC-16	11/17/16	1010	G	W	N	N	1	1	1	3	
GWC-14	11/17/16	1048	G	W	N	N	1	1	1	3	
GWC-15	11/17/16	1130	G	W	N	N	1	1	1	3	
GWC-18	11/17/16	1139	G	W	N	N	1	1	2	4	Extra Radium sample collected for lab QA/QC
GWC-17	11/17/16	1228	G	W	N	N	1	1	1	3	
GWC-19	11/17/16	1305	G	W	N	N	1	1	1	3	
GWC-21	11/17/16	1420	G	W	N	N	1	1	1	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: Please cc: Maria Padilla and Heath McCorkle with results

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 11-18-16 1031 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date/Time: 11-18-16 1035 Company: TA  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 2.0°C, 2.0°C IRG



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130400-1  
SDG Number: Gypsum Landfill

**Login Number: 130400**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	746085, 746086
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	2.0°C, 2.6°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 Wansley

TestAmerica Job ID: 400-130400-1  
SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130400-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/30/2016 5:14:32 PM

Cheyenne Whitmire, Project Manager II

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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 Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

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**Job ID: 400-130400-2**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-130400-2**

**RAD**

Method(s) 9315: Radium-226 Prep Batch 160-281400: The RPD/RER for the sample duplicate (400-130400-A-7-A DU) is outside acceptance criteria (40%/1; 357%/1.12). However, the activity for both the sample (400-130400-C-7-A) and the duplicate is below the MDC. Batch precision is demonstrated by a passing RER for sample duplicate 400-130400-A-2-A DU (0.82). The data have been qualified and reported. GWC-33 (400-130400-1), GWC-13 (400-130400-2), GWC-13 (400-130400-2[DU]), GWC-10 (400-130400-3), GWC-16 (400-130400-4), GWC-14 (400-130400-5), GWC-15 (400-130400-6), GWC-18 (400-130400-7), GWC-18 (400-130400-7[DU]), GWC-17 (400-130400-8), GWC-19 (400-130400-9), GWC-21 (400-130400-10), (LCS 160-281400/2-A) and (MB 160-281400/1-A)





# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130400-1	GWC-33	Water	11/17/16 08:47	11/19/16 09:18
400-130400-2	GWC-13	Water	11/17/16 09:10	11/19/16 09:18
400-130400-3	GWC-10	Water	11/17/16 09:45	11/19/16 09:18
400-130400-4	GWC-16	Water	11/17/16 10:10	11/19/16 09:18
400-130400-5	GWC-14	Water	11/17/16 10:48	11/19/16 09:18
400-130400-6	GWC-15	Water	11/17/16 11:30	11/19/16 09:18
400-130400-7	GWC-18	Water	11/17/16 11:39	11/19/16 09:18
400-130400-8	GWC-17	Water	11/17/16 12:28	11/19/16 09:18
400-130400-9	GWC-19	Water	11/17/16 13:05	11/19/16 09:18
400-130400-10	GWC-21	Water	11/17/16 14:20	11/19/16 09:18



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-130400-1**

**Date Collected: 11/17/16 08:47**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356	U	0.252	0.254	1.00	0.360	pCi/L	11/29/16 10:11	12/30/16 09:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					11/29/16 10:11	12/30/16 09:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.754		0.269	0.278	1.00	0.353	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	94.2		40 - 110					11/29/16 10:56	12/29/16 14:05	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	1.11		0.369	0.377	5.00	0.360	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-130400-2**

**Date Collected: 11/17/16 09:10**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.269	U	0.212	0.213	1.00	0.303	pCi/L	11/29/16 10:11	12/30/16 09:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/29/16 10:11	12/30/16 09:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.248	U	0.263	0.264	1.00	0.431	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	96.4		40 - 110					11/29/16 10:56	12/29/16 14:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.517</b>		0.338	0.339	5.00	0.431	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-130400-3**

**Date Collected: 11/17/16 09:45**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.93		0.454	0.486	1.00	0.337	pCi/L	11/29/16 10:11	12/30/16 09:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					11/29/16 10:11	12/30/16 09:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.62		0.577	0.774	1.00	0.409	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	89.7		40 - 110					11/29/16 10:56	12/29/16 14:05	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	7.54		0.734	0.914	5.00	0.409	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-130400-4**

**Date Collected: 11/17/16 10:10**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.179	U	0.195	0.196	1.00	0.311	pCi/L	11/29/16 10:11	12/30/16 09:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					11/29/16 10:11	12/30/16 09:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.417	U	0.349	0.351	1.00	0.562	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	92.0		40 - 110					11/29/16 10:56	12/29/16 14:05	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	0.596		0.400	0.402	5.00	0.562	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-130400-5**

**Date Collected: 11/17/16 10:48**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.647		0.304	0.310	1.00	0.372	pCi/L	11/29/16 10:11	12/30/16 09:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					11/29/16 10:11	12/30/16 09:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.858		0.286	0.296	1.00	0.379	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	95.0		40 - 110					11/29/16 10:56	12/29/16 14:05	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	1.51		0.417	0.429	5.00	0.379	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-130400-6**

**Date Collected: 11/17/16 11:30**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.149	U	0.184	0.184	1.00	0.302	pCi/L	11/29/16 10:11	12/30/16 11:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					11/29/16 10:11	12/30/16 11:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.111	U	0.222	0.222	1.00	0.379	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	92.0		40 - 110					11/29/16 10:56	12/29/16 14:05	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	0.260	U	0.288	0.288	5.00	0.379	pCi/L		12/30/16 14:46	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-130400-7**

**Date Collected: 11/17/16 11:39**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.294	U	0.213	0.215	1.00	0.301	pCi/L	11/29/16 10:11	12/30/16 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/29/16 10:11	12/30/16 11:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.183	U	0.233	0.234	1.00	0.386	pCi/L	11/29/16 10:56	12/29/16 14:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/29/16 10:56	12/29/16 14:05	1
Y Carrier	94.6		40 - 110					11/29/16 10:56	12/29/16 14:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.478</b>		0.316	0.317	5.00	0.386	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**

**Date Collected: 11/17/16 12:28**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-8**

**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	-0.0788	U	0.129	0.129	1.00	0.315	pCi/L	11/29/16 10:11	12/30/16 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					11/29/16 10:11	12/30/16 11:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.256	U	0.315	0.316	1.00	0.521	pCi/L	11/29/16 10:56	12/29/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					11/29/16 10:56	12/29/16 14:06	1
Y Carrier	93.5		40 - 110					11/29/16 10:56	12/29/16 14:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.177	U	0.340	0.341	5.00	0.521	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-130400-9**

**Date Collected: 11/17/16 13:05**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0382	U	0.111	0.111	1.00	0.268	pCi/L	11/29/16 10:11	12/30/16 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					11/29/16 10:11	12/30/16 11:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0893	U	0.255	0.256	1.00	0.441	pCi/L	11/29/16 10:56	12/29/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					11/29/16 10:56	12/29/16 14:06	1
Y Carrier	92.3		40 - 110					11/29/16 10:56	12/29/16 14:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0511	U	0.278	0.279	5.00	0.441	pCi/L		12/30/16 14:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**

**Date Collected: 11/17/16 14:20**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-10**

**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	-0.0449	U	0.149	0.150	1.00	0.326	pCi/L	11/29/16 10:11	12/30/16 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/29/16 10:11	12/30/16 11:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0444	U	0.220	0.220	1.00	0.401	pCi/L	11/29/16 10:56	12/29/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/29/16 10:56	12/29/16 14:06	1
Y Carrier	94.2		40 - 110					11/29/16 10:56	12/29/16 14:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0892	U	0.266	0.266	5.00	0.401	pCi/L		12/30/16 14:46	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
F	Duplicate RPD exceeds the control limit

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 11/17/16 08:47**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285901	12/30/16 09:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-13**

**Date Collected: 11/17/16 09:10**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285901	12/30/16 09:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-10**

**Date Collected: 11/17/16 09:45**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285901	12/30/16 09:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-16**

**Date Collected: 11/17/16 10:10**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285901	12/30/16 09:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Date Collected: 11/17/16 10:48**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285901	12/30/16 09:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-15**

**Date Collected: 11/17/16 11:30**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 11:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-18**

**Date Collected: 11/17/16 11:39**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 11:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-17**

**Date Collected: 11/17/16 12:28**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 11:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Date Collected: 11/17/16 13:05**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 11:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	RTM	TAL SL

**Client Sample ID: GWC-21**

**Date Collected: 11/17/16 14:20**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130400-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281400	11/29/16 10:11	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 11:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281415	11/29/16 10:56	AS	TAL SL
Total/NA	Analysis	9320		1	285757	12/29/16 14:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285935	12/30/16 14:46	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 Wansley

TestAmerica Job ID: 400-130400-2  
 SDG: Gypsum Landfill

## Rad

### Prep Batch: 281400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total/NA	Water	PrecSep-21	
400-130400-2	GWC-13	Total/NA	Water	PrecSep-21	
400-130400-3	GWC-10	Total/NA	Water	PrecSep-21	
400-130400-4	GWC-16	Total/NA	Water	PrecSep-21	
400-130400-5	GWC-14	Total/NA	Water	PrecSep-21	
400-130400-6	GWC-15	Total/NA	Water	PrecSep-21	
400-130400-7	GWC-18	Total/NA	Water	PrecSep-21	
400-130400-8	GWC-17	Total/NA	Water	PrecSep-21	
400-130400-9	GWC-19	Total/NA	Water	PrecSep-21	
400-130400-10	GWC-21	Total/NA	Water	PrecSep-21	
MB 160-281400/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281400/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-130400-2 DU	GWC-13	Total/NA	Water	PrecSep-21	
400-130400-7 DU	GWC-18	Total/NA	Water	PrecSep-21	

### Prep Batch: 281415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130400-1	GWC-33	Total/NA	Water	PrecSep_0	
400-130400-2	GWC-13	Total/NA	Water	PrecSep_0	
400-130400-3	GWC-10	Total/NA	Water	PrecSep_0	
400-130400-4	GWC-16	Total/NA	Water	PrecSep_0	
400-130400-5	GWC-14	Total/NA	Water	PrecSep_0	
400-130400-6	GWC-15	Total/NA	Water	PrecSep_0	
400-130400-7	GWC-18	Total/NA	Water	PrecSep_0	
400-130400-8	GWC-17	Total/NA	Water	PrecSep_0	
400-130400-9	GWC-19	Total/NA	Water	PrecSep_0	
400-130400-10	GWC-21	Total/NA	Water	PrecSep_0	
MB 160-281415/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-281415/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-130400-2 DU	GWC-13	Total/NA	Water	PrecSep_0	
400-130400-7 DU	GWC-18	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-281400/1-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281400**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03680	U	0.156	0.156	1.00	0.305	pCi/L	11/29/16 10:11	12/30/16 11:13	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/29/16 10:11	12/30/16 11:13	1

**Lab Sample ID: LCS 160-281400/2-A**  
**Matrix: Water**  
**Analysis Batch: 285901**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281400**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.59		1.74	1.00	0.331	pCi/L	131	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	84.6		40 - 110						

**Lab Sample ID: 400-130400-2 DU**  
**Matrix: Water**  
**Analysis Batch: 285901**

**Client Sample ID: GWC-13**  
**Prep Type: Total/NA**  
**Prep Batch: 281400**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.269	U	-0.02400	U	0.145	1.00	0.316	pCi/L	0.82	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	87.5		40 - 110							

**Lab Sample ID: 400-130400-7 DU**  
**Matrix: Water**  
**Analysis Batch: 285872**

**Client Sample ID: GWC-18**  
**Prep Type: Total/NA**  
**Prep Batch: 281400**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.294	U	-0.08292	U F	0.121	1.00	0.306	pCi/L	1.12	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	87.5		40 - 110							

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-281415/1-A**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281415**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.03809	U	0.237	0.237	1.00	0.418	pCi/L	11/29/16 10:56	12/29/16 14:04	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110	11/29/16 10:56	12/29/16 14:04	1
Y Carrier	89.7		40 - 110	11/29/16 10:56	12/29/16 14:04	1

**Lab Sample ID: LCS 160-281415/2-A**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281415**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	15.00		1.61	1.00	0.379	pCi/L	107	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.6		40 - 110
Y Carrier	95.7		40 - 110

**Lab Sample ID: 400-130400-2 DU**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: GWC-13**  
**Prep Type: Total/NA**  
**Prep Batch: 281415**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.248	U	0.03388	U	0.214	1.00	0.379	pCi/L	0.45	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.5		40 - 110
Y Carrier	88.2		40 - 110

**Lab Sample ID: 400-130400-7 DU**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: GWC-18**  
**Prep Type: Total/NA**  
**Prep Batch: 281415**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.183	U	0.1512	U	0.234	1.00	0.392	pCi/L	0.07	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.5		40 - 110
Y Carrier	96.4		40 - 110

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
 SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130400-2 DU**  
**Matrix: Water**  
**Analysis Batch: 285935**

**Client Sample ID: GWC-13**  
**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	0.517		0.009882	U	0.258	5.00	0.379	pCi/L	0.85	

**Lab Sample ID: 400-130400-7 DU**  
**Matrix: Water**  
**Analysis Batch: 285935**

**Client Sample ID: GWC-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	0.478		0.06830	U	0.263	5.00	0.392	pCi/L	0.71	



Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

Lab PVI: Whitmire, Cheyenne R  
 Camer Tracking No(s):  
 Job #: 400-130400 COC  
 Page:  
 E-Mail: cheyenne.whitmire@testamericainc.com



**Client Information**

Client Contact: Jolu Abraham  
 Phone:  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Analysis Requested**

Due Date Requested:	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470
TAT Requested (days):	Radium 226 & 228 - SW-846 9315 & 9320
PO #:	
WG #:	
Project #:	
SSOW#:	

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)	Performance (MSD) (Yes or No)	I	D	B	Total Number of Containers	Special Instructions/Note:
GWC-33	11/17/16	0847	G	W	N	N	1	1	1	3	
GWC-13	11/17/16	0910	G	W	N	N	1	1	2	4	Extra Radium sample collected for lab QA/QC
GWC-10	11/17/16	0945	G	W	N	N	1	1	1	3	
GWC-16	11/17/16	1010	G	W	N	N	1	1	1	3	
GWC-14	11/17/16	1048	G	W	N	N	1	1	1	3	
GWC-15	11/17/16	1130	G	W	N	N	1	1	1	3	
GWC-18	11/17/16	1139	G	W	N	N	1	1	2	4	Extra Radium sample collected for lab QA/QC
GWC-17	11/17/16	1228	G	W	N	N	1	1	1	3	
GWC-19	11/17/16	1305	G	W	N	N	1	1	1	3	
GWC-21	11/17/16	1420	G	W	N	N	1	1	1	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: Please cc: Maria Padilla and Heath McCorkle with results

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 11-18-16 1031 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date/Time: 11-18-16 1035 Company: TA  
 Relinquished by: \_\_\_\_\_ Date/Time: 11-19-16 910 Company: TA  
 Custody Seal No.: 746086, 746085  
 Cooler Temperature(s) °C and Other Remarks: 2.0°C, 2.0°C IRG



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130400-2  
SDG Number: Gypsum Landfill

**Login Number: 130400**

**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	746085, 746086
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	2.0°C, 2.6°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 <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 Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130400-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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



# 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: 400-130401-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

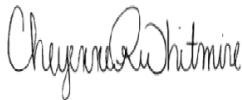
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/7/2016 1:26:42 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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**Job ID: 400-130401-1**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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**Job Narrative**  
**400-130401-1**

## Metals

Method(s) 6020: The method blank for preparation batch 331989 and analytical batch 332368 contained Chromium 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.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-20

## Lab Sample ID: 400-130401-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.71	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-130401-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-3

## Lab Sample ID: 400-130401-3

No Detections.

## Client Sample ID: FERB-3

## Lab Sample ID: 400-130401-4

No Detections.

## Client Sample ID: DUP-3

## Lab Sample ID: 400-130401-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		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	7.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	58		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 Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130401-1	GWC-20	Water	11/17/16 15:47	11/19/16 09:18
400-130401-2	GWC-22	Water	11/17/16 16:00	11/19/16 09:18
400-130401-3	FB-3	Water	11/17/16 15:51	11/19/16 09:18
400-130401-4	FERB-3	Water	11/17/16 15:59	11/19/16 09:18
400-130401-5	DUP-3	Water	11/17/16 00:00	11/19/16 09:18

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**  
**Date Collected: 11/17/16 15:47**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			12/01/16 20:53	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 20:53	1
<b>Sulfate</b>	<b>0.71</b>	<b>J</b>	1.0	0.70	mg/L			12/01/16 20:53	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		11/22/16 08:30	11/23/16 17:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/23/16 17:45	5
<b>Barium</b>	<b>0.034</b>		0.0025	0.00049	mg/L		11/22/16 08:30	11/23/16 17:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:45	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/23/16 17:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/23/16 17:45	5
<b>Calcium</b>	<b>7.9</b>		0.25	0.13	mg/L		11/22/16 08:30	11/23/16 17:45	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/23/16 17:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/23/16 17:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/23/16 17:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/23/16 17:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/23/16 17:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/23/16 17:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/23/16 17:45	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		11/28/16 12:52	12/05/16 13:31	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>84</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**  
**Date Collected: 11/17/16 16:00**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			12/01/16 21:16	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 21:16	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 21:16	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		11/22/16 08:30	11/22/16 23:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/22/16 23:44	5
<b>Barium</b>	<b>0.025</b>		0.0025	0.00049	mg/L		11/22/16 08:30	11/22/16 23:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:44	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/22/16 23:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:44	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		11/22/16 08:30	11/22/16 23:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/22/16 23:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/22/16 23:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/22/16 23:44	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/22/16 23:44	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/22/16 23:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/22/16 23:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/22/16 23:44	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		11/28/16 12:52	12/05/16 13:32	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			11/23/16 15:39	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 11/17/16 15:51**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-3**  
**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			12/01/16 21:39	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 21:39	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 21:39	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		11/22/16 08:30	11/22/16 23:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/22/16 23:48	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/22/16 08:30	11/22/16 23:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:48	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/22/16 23:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:48	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 08:30	11/22/16 23:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/22/16 23:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/22/16 23:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/22/16 23:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/22/16 23:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/22/16 23:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/22/16 23:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/22/16 23:48	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		11/28/16 12:52	12/05/16 13:43	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			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**  
**Date Collected: 11/17/16 15:59**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-4**  
**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			12/01/16 22:01	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 22:01	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 22:01	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		11/22/16 08:30	11/22/16 23:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/22/16 23:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		11/22/16 08:30	11/22/16 23:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:53	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/22/16 23:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:53	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 08:30	11/22/16 23:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/22/16 23:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/22/16 23:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/22/16 23:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/22/16 23:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/22/16 23:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/22/16 23:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/22/16 23:53	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		11/28/16 12:52	12/05/16 13:45	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			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 11/17/16 00:00**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-5**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			12/01/16 22:24	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 22:24	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 22:24	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		11/22/16 08:30	11/22/16 23:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/22/16 23:57	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		11/22/16 08:30	11/22/16 23:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:57	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/22/16 23:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 23:57	5
<b>Calcium</b>	<b>7.9</b>		0.25	0.13	mg/L		11/22/16 08:30	11/22/16 23:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/22/16 23:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/22/16 23:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/22/16 23:57	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/22/16 23:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/22/16 23:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/22/16 23:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/22/16 23:57	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		11/28/16 12:52	12/05/16 13:46	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>58</b>		5.0	3.4	mg/L			11/22/16 18:09	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

## 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.
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.

## 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 Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 11/17/16 15:47**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 20:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331989	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332368	11/23/16 17:45	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-22**

**Date Collected: 11/17/16 16:00**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 21:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331986	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 23:44	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: FB-3**

**Date Collected: 11/17/16 15:51**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 21:39	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331986	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 23:48	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: FERB-3**

**Date Collected: 11/17/16 15:59**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 22:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331986	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 23:53	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 11/17/16 00:00**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 22:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			331986	11/22/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332176	11/22/16 23:57	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332188	11/22/16 18:09	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 Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total/NA	Water	300.0	
400-130401-2	GWC-22	Total/NA	Water	300.0	
400-130401-3	FB-3	Total/NA	Water	300.0	
400-130401-4	FERB-3	Total/NA	Water	300.0	
400-130401-5	DUP-3	Total/NA	Water	300.0	
MB 400-333332/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333332/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-333332/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130755-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130755-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 331986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-2	GWC-22	Total Recoverable	Water	3005A	
400-130401-3	FB-3	Total Recoverable	Water	3005A	
400-130401-4	FERB-3	Total Recoverable	Water	3005A	
400-130401-5	DUP-3	Total Recoverable	Water	3005A	
MB 400-331986/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-331986/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130330-A-4-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130330-A-4-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 331989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total Recoverable	Water	3005A	
MB 400-331989/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-331989/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130269-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130269-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 332176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-2	GWC-22	Total Recoverable	Water	6020	331986
400-130401-3	FB-3	Total Recoverable	Water	6020	331986
400-130401-4	FERB-3	Total Recoverable	Water	6020	331986
400-130401-5	DUP-3	Total Recoverable	Water	6020	331986
MB 400-331986/1-A ^5	Method Blank	Total Recoverable	Water	6020	331986
LCS 400-331986/2-A	Lab Control Sample	Total Recoverable	Water	6020	331986
400-130330-A-4-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	331986
400-130330-A-4-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	331986

### Analysis Batch: 332368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total Recoverable	Water	6020	331989
MB 400-331989/1-A	Method Blank	Total Recoverable	Water	6020	331989
LCS 400-331989/2-A	Lab Control Sample	Total Recoverable	Water	6020	331989
400-130269-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	331989
400-130269-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	331989

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 332813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total/NA	Water	7470A	
400-130401-2	GWC-22	Total/NA	Water	7470A	
400-130401-3	FB-3	Total/NA	Water	7470A	
400-130401-4	FERB-3	Total/NA	Water	7470A	
400-130401-5	DUP-3	Total/NA	Water	7470A	
MB 400-332813/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-332813/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130361-B-5-C MS	Matrix Spike	Total/NA	Water	7470A	
400-130361-B-5-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 333750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total/NA	Water	7470A	332813
400-130401-2	GWC-22	Total/NA	Water	7470A	332813
400-130401-3	FB-3	Total/NA	Water	7470A	332813
400-130401-4	FERB-3	Total/NA	Water	7470A	332813
400-130401-5	DUP-3	Total/NA	Water	7470A	332813
MB 400-332813/14-A	Method Blank	Total/NA	Water	7470A	332813
LCS 400-332813/15-A	Lab Control Sample	Total/NA	Water	7470A	332813
400-130361-B-5-C MS	Matrix Spike	Total/NA	Water	7470A	332813
400-130361-B-5-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	332813

## General Chemistry

### Analysis Batch: 332188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-5	DUP-3	Total/NA	Water	SM 2540C	
MB 400-332188/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-332188/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129669-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 332379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total/NA	Water	SM 2540C	
400-130401-2	GWC-22	Total/NA	Water	SM 2540C	
400-130401-3	FB-3	Total/NA	Water	SM 2540C	
400-130401-4	FERB-3	Total/NA	Water	SM 2540C	
MB 400-332379/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-332379/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130401-2 DU	GWC-22	Total/NA	Water	SM 2540C	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333332/4**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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			12/01/16 11:37	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 11:37	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 11:37	1

**Lab Sample ID: LCS 400-333332/5**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.91		mg/L		99	90 - 110
Sulfate	10.0	9.61		mg/L		96	90 - 110

**Lab Sample ID: LCSD 400-333332/6**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.92		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.61		mg/L		96	90 - 110	0	15

**Lab Sample ID: 400-130755-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	293	E 4	mg/L		28	80 - 120
Fluoride	0.14	J	10.0	10.6		mg/L		105	80 - 120
Sulfate	500	E	10.0	507	E 4	mg/L		80	80 - 120

**Lab Sample ID: 400-130755-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	295	E 4	mg/L		49	80 - 120	1	20
Fluoride	0.14	J	10.0	10.6		mg/L		104	80 - 120	0	20
Sulfate	500	E	10.0	512	E 4	mg/L		124	80 - 120	1	20

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

**Lab Sample ID: MB 400-331986/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331986**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/22/16 08:30	11/22/16 20:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/22/16 08:30	11/22/16 20:53	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-331986/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331986**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.00049		0.0025	0.00049	mg/L		11/22/16 08:30	11/22/16 20:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 20:53	5
Boron	<0.021		0.050	0.021	mg/L		11/22/16 08:30	11/22/16 20:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/22/16 08:30	11/22/16 20:53	5
Calcium	<0.13		0.25	0.13	mg/L		11/22/16 08:30	11/22/16 20:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/22/16 08:30	11/22/16 20:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/22/16 08:30	11/22/16 20:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/22/16 08:30	11/22/16 20:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/22/16 08:30	11/22/16 20:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/22/16 08:30	11/22/16 20:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/22/16 08:30	11/22/16 20:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/22/16 08:30	11/22/16 20:53	5

**Lab Sample ID: LCS 400-331986/2-A**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331986**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Antimony	0.0500	0.0520		mg/L		104		80 - 120
Arsenic	0.0500	0.0513		mg/L		103		80 - 120
Barium	0.0500	0.0482		mg/L		96		80 - 120
Beryllium	0.0500	0.0483		mg/L		97		80 - 120
Boron	0.100	0.0991		mg/L		99		80 - 120
Cadmium	0.0500	0.0514		mg/L		103		80 - 120
Calcium	5.00	4.89		mg/L		98		80 - 120
Chromium	0.0500	0.0490		mg/L		98		80 - 120
Cobalt	0.0500	0.0501		mg/L		100		80 - 120
Lead	0.0500	0.0498		mg/L		100		80 - 120
Lithium	0.0500	0.0520		mg/L		104		80 - 120
Molybdenum	0.0500	0.0522		mg/L		104		80 - 120
Selenium	0.0500	0.0505		mg/L		101		80 - 120
Thallium	0.0100	0.0103		mg/L		103		80 - 120

**Lab Sample ID: 400-130330-A-4-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331986**

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Antimony	<0.0010		0.0500	0.0549		mg/L		110		75 - 125
Arsenic	<0.00046		0.0500	0.0520		mg/L		104		75 - 125
Barium	0.084		0.0500	0.132		mg/L		98		75 - 125
Beryllium	<0.00034		0.0500	0.0494		mg/L		99		75 - 125
Boron	<0.021		0.100	0.111		mg/L		111		75 - 125
Cadmium	<0.00034		0.0500	0.0502		mg/L		100		75 - 125
Calcium	1.8		5.00	6.61		mg/L		97		75 - 125
Chromium	<0.0011		0.0500	0.0497		mg/L		99		75 - 125
Cobalt	0.00073	J	0.0500	0.0511		mg/L		101		75 - 125
Lead	<0.00035		0.0500	0.0484		mg/L		97		75 - 125
Lithium	0.0061		0.0500	0.0594		mg/L		107		75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130330-A-4-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331986**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0513		mg/L		103	75 - 125
Selenium	<0.00024		0.0500	0.0504		mg/L		101	75 - 125
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125

**Lab Sample ID: 400-130330-A-4-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 332176**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331986**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0524		mg/L		105	75 - 125	5	20
Arsenic	<0.00046		0.0500	0.0511		mg/L		102	75 - 125	2	20
Barium	0.084		0.0500	0.129		mg/L		91	75 - 125	3	20
Beryllium	<0.00034		0.0500	0.0485		mg/L		97	75 - 125	2	20
Boron	<0.021		0.100	0.107		mg/L		107	75 - 125	4	20
Cadmium	<0.00034		0.0500	0.0506		mg/L		101	75 - 125	1	20
Calcium	1.8		5.00	6.68		mg/L		98	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0491		mg/L		98	75 - 125	1	20
Cobalt	0.00073	J	0.0500	0.0514		mg/L		101	75 - 125	1	20
Lead	<0.00035		0.0500	0.0489		mg/L		98	75 - 125	1	20
Lithium	0.0061		0.0500	0.0587		mg/L		105	75 - 125	1	20
Molybdenum	<0.00085		0.0500	0.0509		mg/L		102	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0507		mg/L		101	75 - 125	1	20
Thallium	<0.00085		0.0100	0.00996		mg/L		100	75 - 125	1	20

**Lab Sample ID: MB 400-331989/1-A**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331989**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00020		0.00050	0.00020	mg/L		11/22/16 08:30	11/23/16 16:33	1
Arsenic	<0.000092		0.00025	0.000092	mg/L		11/22/16 08:30	11/23/16 16:33	1
Barium	<0.000098		0.00050	0.000098	mg/L		11/22/16 08:30	11/23/16 16:33	1
Beryllium	<0.000068		0.00050	0.000068	mg/L		11/22/16 08:30	11/23/16 16:33	1
Boron	<0.0042		0.010	0.0042	mg/L		11/22/16 08:30	11/23/16 16:33	1
Cadmium	<0.000068		0.00050	0.000068	mg/L		11/22/16 08:30	11/23/16 16:33	1
Calcium	<0.025		0.050	0.025	mg/L		11/22/16 08:30	11/23/16 16:33	1
Chromium	0.000250	J	0.00050	0.00022	mg/L		11/22/16 08:30	11/23/16 16:33	1
Cobalt	<0.000080		0.00050	0.000080	mg/L		11/22/16 08:30	11/23/16 16:33	1
Lead	<0.000070		0.00025	0.000070	mg/L		11/22/16 08:30	11/23/16 16:33	1
Lithium	<0.00064		0.0010	0.00064	mg/L		11/22/16 08:30	11/23/16 16:33	1
Molybdenum	<0.00017		0.0030	0.00017	mg/L		11/22/16 08:30	11/23/16 16:33	1
Selenium	<0.000048		0.00025	0.000048	mg/L		11/22/16 08:30	11/23/16 16:33	1
Thallium	<0.000017		0.00010	0.000017	mg/L		11/22/16 08:30	11/23/16 16:33	1

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 400-331989/2-A**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331989**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0503		mg/L		101	80 - 120
Barium	0.0500	0.0496		mg/L		99	80 - 120
Beryllium	0.0500	0.0461		mg/L		92	80 - 120
Boron	0.100	0.0973		mg/L		97	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	5.00	4.84		mg/L		97	80 - 120
Chromium	0.0500	0.0493		mg/L		99	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0492		mg/L		98	80 - 120
Lithium	0.0500	0.0502		mg/L		100	80 - 120
Molybdenum	0.0500	0.0504		mg/L		101	80 - 120
Selenium	0.0500	0.0489		mg/L		98	80 - 120
Thallium	0.0100	0.00990		mg/L		99	80 - 120

**Lab Sample ID: 400-130269-G-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0013	J	0.0500	0.0544		mg/L		106	75 - 125
Arsenic	0.0014		0.0500	0.0527		mg/L		103	75 - 125
Barium	0.19		0.0500	0.234		mg/L		90	75 - 125
Beryllium	<0.00034		0.0500	0.0458		mg/L		92	75 - 125
Boron	0.59		0.100	0.702	4	mg/L		112	75 - 125
Cadmium	<0.00034		0.0500	0.0493		mg/L		99	75 - 125
Calcium	520	E	5.00	531	E 4	mg/L		289	75 - 125
Chromium	0.0016	J B	0.0500	0.0501		mg/L		97	75 - 125
Cobalt	0.0010	J	0.0500	0.0486		mg/L		95	75 - 125
Lead	0.0010	J	0.0500	0.0522		mg/L		102	75 - 125
Lithium	0.28		0.0500	0.328	4	mg/L		97	75 - 125
Molybdenum	<0.00085		0.0500	0.0530		mg/L		106	75 - 125
Selenium	0.00064	J	0.0500	0.0518		mg/L		102	75 - 125
Thallium	<0.00085		0.0100	0.0104		mg/L		104	75 - 125

**Lab Sample ID: 400-130269-G-1-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 332368**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 331989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.0013	J	0.0500	0.0545		mg/L		106	75 - 125	0	20
Arsenic	0.0014		0.0500	0.0531		mg/L		103	75 - 125	1	20
Barium	0.19		0.0500	0.243		mg/L		107	75 - 125	4	20
Beryllium	<0.00034		0.0500	0.0461		mg/L		92	75 - 125	1	20
Boron	0.59		0.100	0.714	4	mg/L		123	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0496		mg/L		99	75 - 125	1	20
Calcium	520	E	5.00	543	E 4	mg/L		529	75 - 125	2	20
Chromium	0.0016	J B	0.0500	0.0511		mg/L		99	75 - 125	2	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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

Lab Sample ID: 400-130269-G-1-C MSD ^5  
Matrix: Water  
Analysis Batch: 332368

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total Recoverable  
Prep Batch: 331989

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Cobalt	0.0010	J	0.0500	0.0496		mg/L		97	75 - 125	2	20
Lead	0.0010	J	0.0500	0.0521		mg/L		102	75 - 125	0	20
Lithium	0.28		0.0500	0.334	4	mg/L		107	75 - 125	2	20
Molybdenum	<0.00085		0.0500	0.0528		mg/L		106	75 - 125	0	20
Selenium	0.00064	J	0.0500	0.0511		mg/L		101	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-332813/14-A  
Matrix: Water  
Analysis Batch: 333750

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 332813

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		11/28/16 12:50	12/05/16 12:55	1

Lab Sample ID: LCS 400-332813/15-A  
Matrix: Water  
Analysis Batch: 333750

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 332813

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.00101	0.000945		mg/L		94	80 - 120

Lab Sample ID: 400-130361-B-5-C MS  
Matrix: Water  
Analysis Batch: 333750

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 332813

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				Limits
Mercury	<0.000070		0.00201	0.00179		mg/L		89	80 - 120

Lab Sample ID: 400-130361-B-5-D MSD  
Matrix: Water  
Analysis Batch: 333750

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 332813

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Mercury	<0.000070		0.00201	0.00181		mg/L		90	80 - 120	1	20

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

Lab Sample ID: MB 400-332188/1  
Matrix: Water  
Analysis Batch: 332188

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			11/22/16 18:09	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 400-332188/2**  
**Matrix: Water**  
**Analysis Batch: 332188**

**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	268		mg/L		91	78 - 122

**Lab Sample ID: 400-129669-A-2 DU**  
**Matrix: Water**  
**Analysis Batch: 332188**

**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	480000		478000		mg/L		0	5

**Lab Sample ID: MB 400-332379/1**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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			11/23/16 15:39	1

**Lab Sample ID: LCS 400-332379/2**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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: 400-130401-2 DU**  
**Matrix: Water**  
**Analysis Batch: 332379**

**Client Sample ID: GWC-22**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		116		mg/L		2	5

# Chain of Custody Record

**Client Information**  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** Andreas Shorechits AS, Myles Rogers MR  
 Lab PM: Whitmire, Cheyenne R  
 Phone: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):  
 COC No:  
 Page: 1 of 1  
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, A=air)	Field Filtered Sample (Yes or No)	TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:	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:
GWC-20	11/17/16	1547	G	W	N	1	1	1	3		
GWC-22	11/17/16	1600	G	W	N	1	1	1	3		
FB-3	11/17/16	1551	G	W	N	1	1	1	3		
FERB-3	11/17/16	1559	G	W	N	1	1	1	3		
DUP-3	11/17/16	-	G	W	N	1	1	1	3		

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: please cc: Maria Padilla and Heath McCorkle on results

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 11-18-16 1031 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date: 11-18-16 1035 Company: THA  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: THA

Custody Seal No.: 746086  
 Cooler Temperature(s) °C and Other Remarks: 2.0°C IRC



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130401-1  
SDG Number: Gypsum Landfill

**Login Number: 130401**

**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	746086
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	2.0°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 <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 Wansley

TestAmerica Job ID: 400-130401-1  
SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130401-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

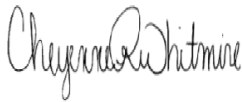
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/30/2016 5:23:11 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Job ID: 400-130401-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-130401-2

#### RAD

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-281468: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-20 (400-130401-1), GWC-22 (400-130401-2), FB-3 (400-130401-3), FERB-3 (400-130401-4) and DUP-3 (400-130401-5). 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 160-281427: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-20 (400-130401-1), GWC-22 (400-130401-2), FB-3 (400-130401-3), FERB-3 (400-130401-4) and DUP-3 (400-130401-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130401-1	GWC-20	Water	11/17/16 15:47	11/19/16 09:18
400-130401-2	GWC-22	Water	11/17/16 16:00	11/19/16 09:18
400-130401-3	FB-3	Water	11/17/16 15:51	11/19/16 09:18
400-130401-4	FERB-3	Water	11/17/16 15:59	11/19/16 09:18
400-130401-5	DUP-3	Water	11/17/16 00:00	11/19/16 09:18

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 11/17/16 15:47**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.176	U	0.243	0.243	1.00	0.409	pCi/L	11/29/16 11:40	12/30/16 07:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					11/29/16 11:40	12/30/16 07:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.372	U	0.252	0.254	1.00	0.385	pCi/L	11/29/16 14:37	12/29/16 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					11/29/16 14:37	12/29/16 14:02	1
Y Carrier	89.7		40 - 110					11/29/16 14:37	12/29/16 14:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.548</b>		0.350	0.352	5.00	0.409	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-130401-2**

**Date Collected: 11/17/16 16:00**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00446	U	0.193	0.193	1.00	0.386	pCi/L	11/29/16 11:40	12/30/16 07:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					11/29/16 11:40	12/30/16 07:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.269	U	0.240	0.242	1.00	0.385	pCi/L	11/29/16 14:37	12/29/16 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					11/29/16 14:37	12/29/16 14:02	1
Y Carrier	92.7		40 - 110					11/29/16 14:37	12/29/16 14:02	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	0.264	U	0.308	0.309	5.00	0.386	pCi/L		12/30/16 11:40	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 11/17/16 15:51**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0717	U	0.180	0.180	1.00	0.333	pCi/L	11/29/16 11:40	12/30/16 07:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					11/29/16 11:40	12/30/16 07:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0811	U	0.308	0.308	1.00	0.531	pCi/L	11/29/16 14:37	12/29/16 13:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					11/29/16 14:37	12/29/16 13:58	1
Y Carrier	93.5		40 - 110					11/29/16 14:37	12/29/16 13:58	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	0.356	0.356	5.00	0.531	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-130401-4**

**Date Collected: 11/17/16 15:59**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.176	U	0.204	0.205	1.00	0.332	pCi/L	11/29/16 11:40	12/30/16 07:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					11/29/16 11:40	12/30/16 07:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.368	U	0.303	0.305	1.00	0.484	pCi/L	11/29/16 14:37	12/29/16 13:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					11/29/16 14:37	12/29/16 13:58	1
Y Carrier	91.2		40 - 110					11/29/16 14:37	12/29/16 13:58	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	0.543		0.366	0.367	5.00	0.484	pCi/L		12/30/16 11:40	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
 SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-130401-5**

**Date Collected: 11/17/16 00:00**

**Matrix: Water**

**Date Received: 11/19/16 09:18**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0982	U	0.217	0.217	1.00	0.391	pCi/L	11/29/16 11:40	12/30/16 07:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					11/29/16 11:40	12/30/16 07:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331	U	0.268	0.270	1.00	0.426	pCi/L	11/29/16 14:37	12/29/16 13:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					11/29/16 14:37	12/29/16 13:58	1
Y Carrier	93.5		40 - 110					11/29/16 14:37	12/29/16 13:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.430</b>		0.345	0.347	5.00	0.426	pCi/L		12/30/16 11:40	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 11/17/16 15:47**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281427	11/29/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 07:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281468	11/29/16 14:37	AS	TAL SL
Total/NA	Analysis	9320		1	285756	12/29/16 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: GWC-22**

**Date Collected: 11/17/16 16:00**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281427	11/29/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 07:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281468	11/29/16 14:37	AS	TAL SL
Total/NA	Analysis	9320		1	285756	12/29/16 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: FB-3**

**Date Collected: 11/17/16 15:51**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281427	11/29/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 07:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281468	11/29/16 14:37	AS	TAL SL
Total/NA	Analysis	9320		1	285758	12/29/16 13:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

**Client Sample ID: FERB-3**

**Date Collected: 11/17/16 15:59**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281427	11/29/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 07:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281468	11/29/16 14:37	AS	TAL SL
Total/NA	Analysis	9320		1	285758	12/29/16 13:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 11/17/16 00:00**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130401-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281427	11/29/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 07:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281468	11/29/16 14:37	AS	TAL SL
Total/NA	Analysis	9320		1	285758	12/29/16 13:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	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 Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 281427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total/NA	Water	PrecSep-21	
400-130401-2	GWC-22	Total/NA	Water	PrecSep-21	
400-130401-3	FB-3	Total/NA	Water	PrecSep-21	
400-130401-4	FERB-3	Total/NA	Water	PrecSep-21	
400-130401-5	DUP-3	Total/NA	Water	PrecSep-21	
MB 160-281427/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281427/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-281427/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 281468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130401-1	GWC-20	Total/NA	Water	PrecSep_0	
400-130401-2	GWC-22	Total/NA	Water	PrecSep_0	
400-130401-3	FB-3	Total/NA	Water	PrecSep_0	
400-130401-4	FERB-3	Total/NA	Water	PrecSep_0	
400-130401-5	DUP-3	Total/NA	Water	PrecSep_0	
MB 160-281468/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-281468/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-281468/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-281427/1-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281427**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04693	U	0.157	0.157	1.00	0.356	pCi/L	11/29/16 11:40	12/30/16 06:59	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					11/29/16 11:40	12/30/16 06:59	1

**Lab Sample ID: LCS 160-281427/2-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281427**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.93		1.82	1.00	0.348	pCi/L	135	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	77.2		40 - 110						

**Lab Sample ID: LCSD 160-281427/3-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 281427**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.1	15.01		1.83	1.00	0.365	pCi/L	135	68 - 137	0.02	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	74.9		40 - 110								

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

**Lab Sample ID: MB 160-281468/1-A**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281468**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5312		0.305	0.309	1.00	0.457	pCi/L	11/29/16 14:37	12/29/16 14:07	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					11/29/16 14:37	12/29/16 14:07	1
Y Carrier	88.2		40 - 110					11/29/16 14:37	12/29/16 14:07	1



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-281468/2-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281468**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	15.03		1.65	1.00	0.449	pCi/L	107	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	77.2		40 - 110
Y Carrier	90.1		40 - 110

**Lab Sample ID: LCSD 160-281468/3-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 281468**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.1	16.11		1.75	1.00	0.465	pCi/L	115	56 - 140	0.32	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	74.9		40 - 110
Y Carrier	91.2		40 - 110

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

**Lab Sample ID: 400-130301-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 285903**

**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	0.0128	U	0.2215	U	0.329	5.00	0.462	pCi/L	0.33	

**Client Information**  
 Client Contact: Joju Abraham  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta, GA, 30308  
 Phone: 404-508-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sample Information**  
 Sampler: Andreas Shoreciffs AS, Myles Rogers MR  
 Lab PM: Whitmire, Cheyenne R  
 Phone: Joju Abraham  
 E-Mail: cheyenne.whitmire@testamerica.com  
 Carrier Tracking No(s):  
 Lab PM: Whitmire, Cheyenne R  
 E-Mail: cheyenne.whitmire@testamerica.com

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Oil, Tissue, Air)	Preservation Code		Field Filtered Sample (Yes/No)	TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-646 9316 & 9320	Total Number of Containers	Special Instructions/Note:
					Preservation Code	Preservation Code						
GWC-20	11/17/16	1547	G	W		N					3	
GWC-22	11/17/16	1600	G	W		N					3	
FB-3	11/17/16	1551	G	W		N					3	
FERB-3	11/17/16	1559	G	W		N					3	
DUP-3	11/17/16	-	G	W		N					3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Analysis Requested**

Preservation Codes:  
 A - HCl, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, X - EDTA, Z - other (specify)  
 Other:

**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/OC Requirements: please cc: Maria Padilla and Heath McCorkle on results

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 11-18-16 1031 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date: 11-18-16 1035 Company: THA  
 Relinquished by: \_\_\_\_\_ Date: 11-19-16 918 Company: THA  
 Cooler Temperature(s) °C and Other Remarks: 2.0°C IRG



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130401-2  
SDG Number: Gypsum Landfill

**Login Number: 130401**

**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	746086
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	2.0°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 <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 Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130401-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

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: 400-130402-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/7/2016 1:32:33 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

Total Access

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[www.testamericainc.com](http://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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# Detection Summary

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
 SDG: Gypsum Landfill

## Client Sample ID: GWC-23

## Lab Sample ID: 400-130402-1

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
Barium	0.0043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-24

## Lab Sample ID: 400-130402-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Antimony	0.0011	J	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Arsenic	0.00055	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0011	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0040	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		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 Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130402-1	GWC-23	Water	11/18/16 10:20	11/19/16 09:18
400-130402-2	GWC-24	Water	11/18/16 10:02	11/19/16 09:18

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

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**  
**Date Collected: 11/18/16 10:20**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130402-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			12/01/16 22:47	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 22:47	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 22:47	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		11/23/16 08:20	11/25/16 18:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/23/16 08:20	11/25/16 18:35	5
<b>Barium</b>	<b>0.0043</b>		0.0025	0.00049	mg/L		11/23/16 08:20	11/25/16 18:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/23/16 08:20	11/25/16 18:35	5
Boron	<0.021		0.050	0.021	mg/L		11/23/16 08:20	11/25/16 18:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/23/16 08:20	11/25/16 18:35	5
<b>Calcium</b>	<b>2.9</b>		0.25	0.13	mg/L		11/23/16 08:20	11/25/16 18:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/23/16 08:20	11/25/16 18:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/23/16 08:20	11/25/16 18:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/23/16 08:20	11/25/16 18:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/23/16 08:20	11/25/16 18:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/23/16 08:20	11/25/16 18:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/23/16 08:20	11/25/16 18:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/23/16 08:20	11/25/16 18:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/28/16 12:52	12/05/16 13:47	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>4.0</b>	<b>J</b>	5.0	3.4	mg/L			11/23/16 15:39	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**  
**Date Collected: 11/18/16 10:02**  
**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130402-2**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.4</b>		1.0	0.89	mg/L			12/01/16 23:10	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 23:10	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 23:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.0010	mg/L		11/23/16 08:20	11/25/16 18:40	5
<b>Arsenic</b>	<b>0.00055</b>	<b>J</b>	0.0013	0.00046	mg/L		11/23/16 08:20	11/25/16 18:40	5
<b>Barium</b>	<b>0.022</b>		0.0025	0.00049	mg/L		11/23/16 08:20	11/25/16 18:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/23/16 08:20	11/25/16 18:40	5
Boron	<0.021		0.050	0.021	mg/L		11/23/16 08:20	11/25/16 18:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/23/16 08:20	11/25/16 18:40	5
<b>Calcium</b>	<b>1.3</b>		0.25	0.13	mg/L		11/23/16 08:20	11/25/16 18:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/23/16 08:20	11/25/16 18:40	5
<b>Cobalt</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.00040	mg/L		11/23/16 08:20	11/25/16 18:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/23/16 08:20	11/25/16 18:40	5
<b>Lithium</b>	<b>0.0040</b>	<b>J</b>	0.0050	0.0032	mg/L		11/23/16 08:20	11/25/16 18:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/23/16 08:20	11/25/16 18:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/23/16 08:20	11/25/16 18:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/23/16 08:20	11/25/16 18:40	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		11/28/16 12:52	12/05/16 13:48	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>28</b>		5.0	3.4	mg/L			11/23/16 15:39	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

## 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.

### General Chemistry

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 Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 11/18/16 10:20**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130402-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 22:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332162	11/23/16 08:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 18:35	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	TET	TAL PEN

**Client Sample ID: GWC-24**

**Date Collected: 11/18/16 10:02**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130402-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	333332	12/01/16 23:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			332162	11/23/16 08:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	332706	11/25/16 18:40	AJR	TAL PEN
Total/NA	Prep	7470A			332813	11/28/16 12:52	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333750	12/05/16 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	332379	11/23/16 15:39	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 Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 333332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total/NA	Water	300.0	
400-130402-2	GWC-24	Total/NA	Water	300.0	
MB 400-333332/4	Method Blank	Total/NA	Water	300.0	
LCS 400-333332/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-333332/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-130755-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-130755-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 332162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total Recoverable	Water	3005A	
400-130402-2	GWC-24	Total Recoverable	Water	3005A	
MB 400-332162/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-332162/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-130417-B-4-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-130417-B-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 332706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total Recoverable	Water	6020	332162
400-130402-2	GWC-24	Total Recoverable	Water	6020	332162
MB 400-332162/1-A ^5	Method Blank	Total Recoverable	Water	6020	332162
LCS 400-332162/2-A	Lab Control Sample	Total Recoverable	Water	6020	332162
400-130417-B-4-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	332162
400-130417-B-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	332162

### Prep Batch: 332813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total/NA	Water	7470A	
400-130402-2	GWC-24	Total/NA	Water	7470A	
MB 400-332813/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-332813/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-130361-B-5-C MS	Matrix Spike	Total/NA	Water	7470A	
400-130361-B-5-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 333750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total/NA	Water	7470A	332813
400-130402-2	GWC-24	Total/NA	Water	7470A	332813
MB 400-332813/14-A	Method Blank	Total/NA	Water	7470A	332813
LCS 400-332813/15-A	Lab Control Sample	Total/NA	Water	7470A	332813
400-130361-B-5-C MS	Matrix Spike	Total/NA	Water	7470A	332813
400-130361-B-5-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	332813

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

## General Chemistry

### Analysis Batch: 332379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total/NA	Water	SM 2540C	
400-130402-2	GWC-24	Total/NA	Water	SM 2540C	
MB 400-332379/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-332379/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-130400-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	
400-130401-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-333332/4**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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			12/01/16 11:37	1
Fluoride	<0.082		0.20	0.082	mg/L			12/01/16 11:37	1
Sulfate	<0.70		1.0	0.70	mg/L			12/01/16 11:37	1

**Lab Sample ID: LCS 400-333332/5**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.91		mg/L		99	90 - 110
Sulfate	10.0	9.61		mg/L		96	90 - 110

**Lab Sample ID: LCSD 400-333332/6**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	9.92		mg/L		99	90 - 110	0	15
Sulfate	10.0	9.61		mg/L		96	90 - 110	0	15

**Lab Sample ID: 400-130755-A-4 MS**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	293	E 4	mg/L		28	80 - 120
Fluoride	0.14	J	10.0	10.6		mg/L		105	80 - 120
Sulfate	500	E	10.0	507	E 4	mg/L		80	80 - 120

**Lab Sample ID: 400-130755-A-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 333332**

**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	290	E	10.0	295	E 4	mg/L		49	80 - 120	1	20
Fluoride	0.14	J	10.0	10.6		mg/L		104	80 - 120	0	20
Sulfate	500	E	10.0	512	E 4	mg/L		124	80 - 120	1	20

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

**Lab Sample ID: MB 400-332162/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332162**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		11/23/16 08:20	11/25/16 14:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		11/23/16 08:20	11/25/16 14:59	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-332162/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332162**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		11/23/16 08:20	11/25/16 14:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		11/23/16 08:20	11/25/16 14:59	5
Boron	<0.021		0.050	0.021	mg/L		11/23/16 08:20	11/25/16 14:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		11/23/16 08:20	11/25/16 14:59	5
Calcium	<0.13		0.25	0.13	mg/L		11/23/16 08:20	11/25/16 14:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		11/23/16 08:20	11/25/16 14:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		11/23/16 08:20	11/25/16 14:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		11/23/16 08:20	11/25/16 14:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		11/23/16 08:20	11/25/16 14:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		11/23/16 08:20	11/25/16 14:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		11/23/16 08:20	11/25/16 14:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		11/23/16 08:20	11/25/16 14:59	5

**Lab Sample ID: LCS 400-332162/2-A**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332162**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0508		mg/L		102	80 - 120
Arsenic	0.0500	0.0509		mg/L		102	80 - 120
Barium	0.0500	0.0497		mg/L		99	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0953		mg/L		95	80 - 120
Cadmium	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	4.78		mg/L		96	80 - 120
Chromium	0.0500	0.0484		mg/L		97	80 - 120
Cobalt	0.0500	0.0490		mg/L		98	80 - 120
Lead	0.0500	0.0487		mg/L		97	80 - 120
Lithium	0.0500	0.0535		mg/L		107	80 - 120
Molybdenum	0.0500	0.0492		mg/L		98	80 - 120
Selenium	0.0500	0.0495		mg/L		99	80 - 120
Thallium	0.0100	0.00995		mg/L		100	80 - 120

**Lab Sample ID: 400-130417-B-4-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332162**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0509		mg/L		102	75 - 125
Arsenic	0.0013		0.0500	0.0533		mg/L		104	75 - 125
Barium	0.012		0.0500	0.0616		mg/L		100	75 - 125
Beryllium	<0.00034		0.0500	0.0497		mg/L		99	75 - 125
Boron	0.024	J	0.100	0.131		mg/L		107	75 - 125
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125
Calcium	2.7		5.00	7.54		mg/L		97	75 - 125
Chromium	0.0011	J	0.0500	0.0511		mg/L		100	75 - 125
Cobalt	0.0012	J	0.0500	0.0519		mg/L		101	75 - 125
Lead	0.00042	J	0.0500	0.0505		mg/L		100	75 - 125
Lithium	0.026		0.0500	0.0784		mg/L		105	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130417-B-4-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332162**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0507		mg/L		101	75 - 125
Selenium	<0.00024		0.0500	0.0514		mg/L		103	75 - 125
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125

**Lab Sample ID: 400-130417-B-4-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 332706**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 332162**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0509		mg/L		102	75 - 125	0	20
Arsenic	0.0013		0.0500	0.0537		mg/L		105	75 - 125	1	20
Barium	0.012		0.0500	0.0630		mg/L		103	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0502		mg/L		100	75 - 125	1	20
Boron	0.024	J	0.100	0.130		mg/L		106	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0515		mg/L		103	75 - 125	1	20
Calcium	2.7		5.00	7.67		mg/L		100	75 - 125	2	20
Chromium	0.0011	J	0.0500	0.0506		mg/L		99	75 - 125	1	20
Cobalt	0.0012	J	0.0500	0.0519		mg/L		101	75 - 125	0	20
Lead	0.00042	J	0.0500	0.0502		mg/L		100	75 - 125	1	20
Lithium	0.026		0.0500	0.0792		mg/L		107	75 - 125	1	20
Molybdenum	<0.00085		0.0500	0.0504		mg/L		101	75 - 125	0	20
Selenium	<0.00024		0.0500	0.0507		mg/L		101	75 - 125	1	20
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-332813/14-A**  
**Matrix: Water**  
**Analysis Batch: 333750**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 332813**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		11/28/16 12:50	12/05/16 12:55	1

**Lab Sample ID: LCS 400-332813/15-A**  
**Matrix: Water**  
**Analysis Batch: 333750**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 332813**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000945		mg/L		94	80 - 120

**Lab Sample ID: 400-130361-B-5-C MS**  
**Matrix: Water**  
**Analysis Batch: 333750**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 332813**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00179		mg/L		89	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-130361-B-5-D MSD**  
**Matrix: Water**  
**Analysis Batch: 333750**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 332813**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00181		mg/L		90	80 - 120	1	20

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

**Lab Sample ID: MB 400-332379/1**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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			11/23/16 15:39	1

**Lab Sample ID: LCS 400-332379/2**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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: 400-130400-A-8 DU**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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	74		74.0		mg/L		0	5

**Lab Sample ID: 400-130401-A-2 DU**  
**Matrix: Water**  
**Analysis Batch: 332379**

**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		116		mg/L		2	5

Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

Sampler: Myles Roger, MR, Andreas Shoreddis AS  
Lab P#: Whitmire, Cheyenne R  
E-Mail: cheyenne.whitmire@testamericainc.com  
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: Plant Wansley - Gypsum Landfill  
Site: CGR

Client Information  
Client Contact: Joju Abraham  
Phone:  
Due Date Requested:  
TAT Requested (days):  
PO #:  
WO #:  
Project #:  
SSOW #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, etc.)	Preservation Code	Analysis Requested	Special Instructions/Note
GWC-23	11/18/16	1020	G	W	N	TDS - SM 2540C ; Cl, F, SO4 - EPA 300 Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SM-846 9315 & 9320	Insufficient volume for radium sample
GWC-24	11/18/16	1002	G	W	N		

**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: 11/18/2016 14:00  
 Relinquished by: \_\_\_\_\_ Date: 11/18/16 15:47  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Company: ERM  
 Company: TA  
 Company: TA

Received by: \_\_\_\_\_ Date/Time: 11/18/16 14:00  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: 11/18/16 9:18

Method of Shipment: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 2.6°C IRC

Custody Seal No.: 746085  
 Custody Seals intact:  Yes  No



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130402-1  
SDG Number: Gypsum Landfill

**Login Number: 130402**

**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	746085
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	2.6°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 <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 Wansley

TestAmerica Job ID: 400-130402-1  
 SDG: Gypsum Landfill

## 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	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	12-31-16
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	12-31-16
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	06-30-17
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: 400-130402-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

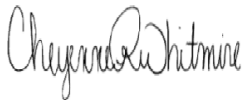
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

12/30/2016 5:47:05 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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

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

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# Case Narrative

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

**Job ID: 400-130402-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-130402-2

#### **RAD**

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-281468: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-23 (400-130402-1). 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 160-281427: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-23 (400-130402-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130402-1	GWC-23	Water	11/18/16 10:20	11/19/16 09:18

---

- 1
- 2
- 3
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- 5
- 6
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- 9
- 10
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- 12
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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 11/18/16 10:20**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130402-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0176	U	0.160	0.160	1.00	0.321	pCi/L	11/29/16 11:40	12/30/16 07:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					11/29/16 11:40	12/30/16 07:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.327	U	0.264	0.266	1.00	0.420	pCi/L	11/29/16 14:37	12/29/16 13:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					11/29/16 14:37	12/29/16 13:58	1
Y Carrier	92.7		40 - 110					11/29/16 14:37	12/29/16 13:58	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	0.309	0.310	5.00	0.420	pCi/L		12/30/16 11:40	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 11/18/16 10:20**

**Date Received: 11/19/16 09:18**

**Lab Sample ID: 400-130402-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281427	11/29/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	285872	12/30/16 07:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			281468	11/29/16 14:37	AS	TAL SL
Total/NA	Analysis	9320		1	285758	12/29/16 13:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	285903	12/30/16 11:40	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 Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 281427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total/NA	Water	PrecSep-21	
MB 160-281427/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281427/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-281427/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 281468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130402-1	GWC-23	Total/NA	Water	PrecSep_0	
MB 160-281468/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-281468/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-281468/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-281427/1-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281427**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04693	U	0.157	0.157	1.00	0.356	pCi/L	11/29/16 11:40	12/30/16 06:59	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					11/29/16 11:40	12/30/16 06:59	1

**Lab Sample ID: LCS 160-281427/2-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281427**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.93		1.82	1.00	0.348	pCi/L	135	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	77.2		40 - 110						

**Lab Sample ID: LCSD 160-281427/3-A**  
**Matrix: Water**  
**Analysis Batch: 285871**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 281427**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.1	15.01		1.83	1.00	0.365	pCi/L	135	68 - 137	0.02	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	74.9		40 - 110								

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

**Lab Sample ID: MB 160-281468/1-A**  
**Matrix: Water**  
**Analysis Batch: 285757**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 281468**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5312		0.305	0.309	1.00	0.457	pCi/L	11/29/16 14:37	12/29/16 14:07	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					11/29/16 14:37	12/29/16 14:07	1
Y Carrier	88.2		40 - 110					11/29/16 14:37	12/29/16 14:07	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-281468/2-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 281468**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.1	15.03		1.65	1.00	0.449	pCi/L	107	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	77.2		40 - 110
Y Carrier	90.1		40 - 110

**Lab Sample ID: LCSD 160-281468/3-A**  
**Matrix: Water**  
**Analysis Batch: 285756**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 281468**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.1	16.11		1.75	1.00	0.465	pCi/L	115	56 - 140	0.32	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	74.9		40 - 110
Y Carrier	91.2		40 - 110

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

**Lab Sample ID: 400-130301-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 285903**

**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	0.0128	U	0.2215	U	0.329	5.00	0.462	pCi/L	0.33	

# Chain of Custody Record

Carrier Tracking No(s): \_\_\_\_\_  
 Lab P/I: \_\_\_\_\_  
 Sampler: Myles Roger, MK, Andreas Shoreddis AS  
 Whitmire, Cheyenne R  
 Client Contact: Joju Abraham  
 Phone: \_\_\_\_\_  
 E-Mail: cheyenne.whitmire@testamericainc.com  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Due Date Requested: \_\_\_\_\_  
 TAT Requested (days): \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 WO #: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 ISSOW#: \_\_\_\_\_

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, C=Cement, A=Asphalt)	Field Filtered Sample Yes or No	Analysis Requested		Special Instructions/Note:
						Meats - (Part 257 Appendix III & IV) EPA 6820 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	
GWC-23	11/18/16	1020	G	W	N	1	1	Insufficient volume for radium sample
GWC-24	11/18/16	1002	G	W	N	1	1	

**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: 11/18/2016 14:00  
 Relinquished by: \_\_\_\_\_ Date/Time: 11/18/16 15:43  
 Relinquished by: \_\_\_\_\_ Date/Time: 11/18/16 9:18  
 Custody Seal No.: 746085  
 Cooler Temperature(s) and Other Remarks: 2.6°C IRC

Special Instructions/QC Requirements: Please cc: Maria Pacilla and Heath McCookle with results

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Method of Shipment: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: 11/18/16 14:00 Company: YTA  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: 11/18/16 9:18 Company: TA



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-130402-2  
SDG Number: Gypsum Landfill

**Login Number: 130402**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	746085
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	2.6°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 Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

## 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	12-31-16
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	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
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	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
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

\* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-130402-2  
SDG: Gypsum Landfill

## 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
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		P330-14-0016	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

# 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: 400-132829-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

1/31/2017 6:49:13 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through  
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Have a Question?



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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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**Job ID: 400-132829-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-132829-1**

**Metals**

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 339670 and analytical batch 339805 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 matrix spike duplicate precision (RPD) for the following sample associated with preparation batch 339670 and analytical batch 339805 was outside control limits: (400-132731-C-9-C MSD).

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Client Sample ID: GWA-29

## Lab Sample ID: 400-132829-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	7.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	1.1	J	2.5	0.49	ug/L	5		6020	Total Recoverable
Beryllium	2.4	J	2.5	0.34	ug/L	5		6020	Total Recoverable
Copper	0.0065		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Nickel	0.0022	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Silver	0.0015		0.00025	0.00011	mg/L	5		6020	Total Recoverable
Zinc	0.024		0.020	0.0065	mg/L	5		6020	Total Recoverable
Lithium	43		5.0	3.2	ug/L	5		6020	Total Recoverable
Calcium	3700		250	130	ug/L	5		6020	Total Recoverable
Molybdenum	2.7	J	15	0.85	ug/L	5		6020	Total Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-132829-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	180		2.5	0.49	ug/L	5		6020	Total Recoverable
Cobalt	13		2.5	0.40	ug/L	5		6020	Total Recoverable
Nickel	0.0070		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Zinc	0.014	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	26000		250	130	ug/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-28

## Lab Sample ID: 400-132829-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	0.85	J	1.0	0.70	mg/L	1		300.0	Total/NA
Beryllium	0.40	J	2.5	0.34	ug/L	5		6020	Total Recoverable
Lithium	22		5.0	3.2	ug/L	5		6020	Total Recoverable
Calcium	2400		250	130	ug/L	5		6020	Total Recoverable
Molybdenum	9.2	J	15	0.85	ug/L	5		6020	Total Recoverable
Total Dissolved Solids	54		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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-26

## Lab Sample ID: 400-132829-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	34		2.5	0.49	ug/L	5		6020	Total
Zinc	0.015	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	1600		250	130	ug/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-2

## Lab Sample ID: 400-132829-5

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
Sulfate	0.87	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	20		2.5	0.49	ug/L	5		6020	Total Recoverable
Calcium	4200		250	130	ug/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-1

## Lab Sample ID: 400-132829-6

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
Barium	8.7		2.5	0.49	ug/L	5		6020	Total Recoverable
Zinc	0.0077	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	590		250	130	ug/L	5		6020	Total Recoverable

## Client Sample ID: GWC-27

## Lab Sample ID: 400-132829-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.99	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.83		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	2.2		1.0	0.70	mg/L	1		300.0	Total/NA
Antimony	1.4	J	2.5	1.0	ug/L	5		6020	Total Recoverable
Barium	13		2.5	0.49	ug/L	5		6020	Total Recoverable
Beryllium	3.0		2.5	0.34	ug/L	5		6020	Total Recoverable
Cobalt	2.7		2.5	0.40	ug/L	5		6020	Total Recoverable
Selenium	0.45	J	1.3	0.24	ug/L	5		6020	Total Recoverable
Thallium	0.16	J	0.50	0.085	ug/L	5		6020	Total Recoverable
Lithium	6.2		5.0	3.2	ug/L	5		6020	Total Recoverable
Calcium	2200		250	130	ug/L	5		6020	Total Recoverable
Molybdenum	1.0	J	15	0.85	ug/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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-27 (Continued)

## Lab Sample ID: 400-132829-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-1

## Lab Sample ID: 400-132829-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.99	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.99		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	2.8		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	15		2.5	0.49	ug/L	5		6020	Total Recoverable
Beryllium	4.2		2.5	0.34	ug/L	5		6020	Total Recoverable
Cobalt	2.6		2.5	0.40	ug/L	5		6020	Total Recoverable
Thallium	0.15	J	0.50	0.085	ug/L	5		6020	Total Recoverable
Lithium	6.4		5.0	3.2	ug/L	5		6020	Total Recoverable
Calcium	2700		250	130	ug/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-1

## Lab Sample ID: 400-132829-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0023	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

## Client Sample ID: FERB-1

## Lab Sample ID: 400-132829-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0021	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132829-1	GWA-29	Water	01/17/17 12:15	01/19/17 08:48
400-132829-2	GWA-4	Water	01/17/17 14:35	01/19/17 08:48
400-132829-3	GWA-28	Water	01/17/17 17:16	01/19/17 08:48
400-132829-4	GWC-26	Water	01/19/17 11:00	01/21/17 09:07
400-132829-5	GWA-2	Water	01/19/17 14:45	01/21/17 09:07
400-132829-6	GWA-1	Water	01/19/17 17:30	01/21/17 09:07
400-132829-7	GWC-27	Water	01/20/17 10:15	01/21/17 09:07
400-132829-8	DUP-1	Water	01/20/17 00:00	01/21/17 09:07
400-132829-9	FB-1	Water	01/20/17 09:20	01/21/17 09:07
400-132829-10	FERB-1	Water	01/20/17 12:10	01/21/17 09:07



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**  
**Date Collected: 01/17/17 12:15**  
**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-1**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			01/21/17 01:39	1
Fluoride	2.6		0.20	0.082	mg/L			01/27/17 00:19	1
Sulfate	7.6		1.0	0.70	mg/L			01/21/17 01:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 19:11	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 19:11	5
Barium	1.1	J	2.5	0.49	ug/L		01/23/17 09:20	01/24/17 19:11	5
Beryllium	2.4	J	2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:11	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:11	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 19:11	5
Cobalt	<0.40		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 19:11	5
Copper	0.0065		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 19:11	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 19:11	5
Nickel	0.0022	J	0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 19:11	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 19:11	5
Silver	0.0015		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 19:11	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 19:11	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 19:11	5
Zinc	0.024		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 19:11	5
Lithium	43		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 19:11	5
Calcium	3700		250	130	ug/L		01/23/17 09:20	01/24/17 19:11	5
Molybdenum	2.7	J	15	0.85	ug/L		01/23/17 09:20	01/24/17 19:11	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 19:11	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		01/25/17 09:41	01/30/17 13:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			01/21/17 14:05	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 01/17/17 14:35**  
**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>14</b>		1.0	0.89	mg/L			01/21/17 02:02	1
Fluoride	<0.082		0.20	0.082	mg/L			01/27/17 00:41	1
<b>Sulfate</b>	<b>15</b>		1.0	0.70	mg/L			01/21/17 02:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 19:15	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 19:15	5
<b>Barium</b>	<b>180</b>		2.5	0.49	ug/L		01/23/17 09:20	01/24/17 19:15	5
Beryllium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:15	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:15	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 19:15	5
<b>Cobalt</b>	<b>13</b>		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 19:15	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 19:15	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 19:15	5
<b>Nickel</b>	<b>0.0070</b>		0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 19:15	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 19:15	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 19:15	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 19:15	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 19:15	5
<b>Zinc</b>	<b>0.014 J</b>		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 19:15	5
Lithium	<3.2		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 19:15	5
<b>Calcium</b>	<b>26000</b>		250	130	ug/L		01/23/17 09:20	01/24/17 19:15	5
Molybdenum	<0.85		15	0.85	ug/L		01/23/17 09:20	01/24/17 19:15	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 19:15	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		01/25/17 09:41	01/30/17 13:04	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>130</b>		5.0	3.4	mg/L			01/21/17 14:05	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**  
**Date Collected: 01/17/17 17:16**  
**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			01/21/17 02:24	1
Fluoride	1.6		0.20	0.082	mg/L			01/27/17 01:04	1
Sulfate	0.85	J	1.0	0.70	mg/L			01/21/17 02:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 19:20	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 19:20	5
Barium	<0.49		2.5	0.49	ug/L		01/23/17 09:20	01/24/17 19:20	5
Beryllium	0.40	J	2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:20	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:20	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 19:20	5
Cobalt	<0.40		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 19:20	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 19:20	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 19:20	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 19:20	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 19:20	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 19:20	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 19:20	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 19:20	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 19:20	5
Lithium	22		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 19:20	5
Calcium	2400		250	130	ug/L		01/23/17 09:20	01/24/17 19:20	5
Molybdenum	9.2	J	15	0.85	ug/L		01/23/17 09:20	01/24/17 19:20	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 19:20	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		01/25/17 09:41	01/30/17 13:10	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			01/21/17 14:05	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-132829-4**

**Date Collected: 01/19/17 11:00**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.8</b>		1.0	0.89	mg/L			01/30/17 18:19	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 18:19	1
Sulfate	<0.70		1.0	0.70	mg/L			01/30/17 18:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 19:24	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 19:24	5
<b>Barium</b>	<b>34</b>		2.5	0.49	ug/L		01/23/17 09:20	01/24/17 19:24	5
Beryllium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:24	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:24	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 19:24	5
Cobalt	<0.40		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 19:24	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 19:24	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 19:24	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 19:24	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 19:24	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 19:24	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 19:24	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 19:24	5
<b>Zinc</b>	<b>0.015 J</b>		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 19:24	5
Lithium	<3.2		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 19:24	5
<b>Calcium</b>	<b>1600</b>		250	130	ug/L		01/23/17 09:20	01/24/17 19:24	5
Molybdenum	<0.85		15	0.85	ug/L		01/23/17 09:20	01/24/17 19:24	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 19:24	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		01/25/17 09:41	01/30/17 13:11	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>10</b>		5.0	3.4	mg/L			01/24/17 15:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 01/19/17 14:45**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-5**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.6</b>		1.0	0.89	mg/L			01/30/17 18:42	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 18:42	1
<b>Sulfate</b>	<b>0.87</b>	<b>J</b>	1.0	0.70	mg/L			01/30/17 18:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 19:29	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 19:29	5
<b>Barium</b>	<b>20</b>		2.5	0.49	ug/L		01/23/17 09:20	01/24/17 19:29	5
Beryllium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:29	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:29	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 19:29	5
Cobalt	<0.40		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 19:29	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 19:29	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 19:29	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 19:29	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 19:29	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 19:29	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 19:29	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 19:29	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 19:29	5
Lithium	<3.2		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 19:29	5
<b>Calcium</b>	<b>4200</b>		250	130	ug/L		01/23/17 09:20	01/24/17 19:29	5
Molybdenum	<0.85		15	0.85	ug/L		01/23/17 09:20	01/24/17 19:29	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 19:29	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		01/25/17 09:41	01/30/17 13:13	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>28</b>		5.0	3.4	mg/L			01/24/17 15:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 01/19/17 17:30**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-6**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			01/30/17 19:05	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 19:05	1
Sulfate	<0.70		1.0	0.70	mg/L			01/30/17 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 19:33	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 19:33	5
<b>Barium</b>	<b>8.7</b>		2.5	0.49	ug/L		01/23/17 09:20	01/24/17 19:33	5
Beryllium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:33	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 19:33	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 19:33	5
Cobalt	<0.40		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 19:33	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 19:33	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 19:33	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 19:33	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 19:33	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 19:33	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 19:33	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 19:33	5
<b>Zinc</b>	<b>0.0077 J</b>		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 19:33	5
Lithium	<3.2		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 19:33	5
<b>Calcium</b>	<b>590</b>		250	130	ug/L		01/23/17 09:20	01/24/17 19:33	5
Molybdenum	<0.85		15	0.85	ug/L		01/23/17 09:20	01/24/17 19:33	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 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		01/25/17 09:41	01/30/17 13:22	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			01/24/17 15:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**  
**Date Collected: 01/20/17 10:15**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-7**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.99	J	1.0	0.89	mg/L			01/30/17 20:21	1
Fluoride	0.83		0.20	0.082	mg/L			01/30/17 20:21	1
Sulfate	2.2		1.0	0.70	mg/L			01/30/17 20:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4	J	2.5	1.0	ug/L		01/25/17 08:40	01/25/17 14:48	5
Arsenic	<0.46		1.3	0.46	ug/L		01/25/17 08:40	01/25/17 14:48	5
Barium	13		2.5	0.49	ug/L		01/25/17 08:40	01/25/17 14:48	5
Beryllium	3.0		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:48	5
Cadmium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:48	5
Chromium	<1.1		2.5	1.1	ug/L		01/25/17 08:40	01/25/17 14:48	5
Cobalt	2.7		2.5	0.40	ug/L		01/25/17 08:40	01/25/17 14:48	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/25/17 08:40	01/25/17 14:48	5
Lead	<0.35		1.3	0.35	ug/L		01/25/17 08:40	01/25/17 14:48	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/25/17 08:40	01/25/17 14:48	5
Selenium	0.45	J	1.3	0.24	ug/L		01/25/17 08:40	01/25/17 14:48	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/25/17 08:40	01/25/17 14:48	5
Thallium	0.16	J	0.50	0.085	ug/L		01/25/17 08:40	01/25/17 14:48	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/25/17 08:40	01/25/17 14:48	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/25/17 08:40	01/25/17 14:48	5
Lithium	6.2		5.0	3.2	ug/L		01/25/17 08:40	01/25/17 14:48	5
Calcium	2200		250	130	ug/L		01/25/17 08:40	01/25/17 14:48	5
Molybdenum	1.0	J	15	0.85	ug/L		01/25/17 08:40	01/25/17 14:48	5
Boron	<21		50	21	ug/L		01/25/17 08:40	01/25/17 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		01/25/17 09:41	01/30/17 13:23	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		5.0	3.4	mg/L			01/24/17 15:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**  
**Date Collected: 01/20/17 00:00**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-8**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.99	J	1.0	0.89	mg/L			01/30/17 20:43	1
Fluoride	0.99		0.20	0.082	mg/L			01/30/17 20:43	1
Sulfate	2.8		1.0	0.70	mg/L			01/30/17 20:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/25/17 08:40	01/25/17 14:53	5
Arsenic	<0.46		1.3	0.46	ug/L		01/25/17 08:40	01/25/17 14:53	5
Barium	15		2.5	0.49	ug/L		01/25/17 08:40	01/25/17 14:53	5
Beryllium	4.2		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:53	5
Cadmium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:53	5
Chromium	<1.1		2.5	1.1	ug/L		01/25/17 08:40	01/25/17 14:53	5
Cobalt	2.6		2.5	0.40	ug/L		01/25/17 08:40	01/25/17 14:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/25/17 08:40	01/25/17 14:53	5
Lead	<0.35		1.3	0.35	ug/L		01/25/17 08:40	01/25/17 14:53	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/25/17 08:40	01/25/17 14:53	5
Selenium	<0.24		1.3	0.24	ug/L		01/25/17 08:40	01/25/17 14:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/25/17 08:40	01/25/17 14:53	5
Thallium	0.15	J	0.50	0.085	ug/L		01/25/17 08:40	01/25/17 14:53	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/25/17 08:40	01/25/17 14:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/25/17 08:40	01/25/17 14:53	5
Lithium	6.4		5.0	3.2	ug/L		01/25/17 08:40	01/25/17 14:53	5
Calcium	2700		250	130	ug/L		01/25/17 08:40	01/25/17 14:53	5
Molybdenum	<0.85		15	0.85	ug/L		01/25/17 08:40	01/25/17 14:53	5
Boron	<21		50	21	ug/L		01/25/17 08:40	01/25/17 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		01/25/17 09:41	01/30/17 13:24	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18		5.0	3.4	mg/L			01/24/17 15:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 01/20/17 09:20**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-9**  
**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			01/30/17 21:06	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 21:06	1
Sulfate	<0.70		1.0	0.70	mg/L			01/30/17 21:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/25/17 08:40	01/25/17 14:57	5
Arsenic	<0.46		1.3	0.46	ug/L		01/25/17 08:40	01/25/17 14:57	5
Barium	<0.49		2.5	0.49	ug/L		01/25/17 08:40	01/25/17 14:57	5
Beryllium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:57	5
Cadmium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:57	5
Chromium	<1.1		2.5	1.1	ug/L		01/25/17 08:40	01/25/17 14:57	5
Cobalt	<0.40		2.5	0.40	ug/L		01/25/17 08:40	01/25/17 14:57	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/25/17 08:40	01/25/17 14:57	5
Lead	<0.35		1.3	0.35	ug/L		01/25/17 08:40	01/25/17 14:57	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/25/17 08:40	01/25/17 14:57	5
Selenium	<0.24		1.3	0.24	ug/L		01/25/17 08:40	01/25/17 14:57	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/25/17 08:40	01/25/17 14:57	5
Thallium	<0.085		0.50	0.085	ug/L		01/25/17 08:40	01/25/17 14:57	5
<b>Vanadium</b>	<b>0.0023 J</b>		0.0025	0.0014	mg/L		01/25/17 08:40	01/25/17 14:57	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/25/17 08:40	01/25/17 14:57	5
Lithium	<3.2		5.0	3.2	ug/L		01/25/17 08:40	01/25/17 14:57	5
Calcium	<130		250	130	ug/L		01/25/17 08:40	01/25/17 14:57	5
Molybdenum	<0.85		15	0.85	ug/L		01/25/17 08:40	01/25/17 14:57	5
Boron	<21		50	21	ug/L		01/25/17 08:40	01/25/17 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		01/25/17 09:41	01/30/17 13:26	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			01/24/17 15:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**  
**Date Collected: 01/20/17 12:10**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-10**  
**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			01/30/17 21:29	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 21:29	1
Sulfate	<0.70		1.0	0.70	mg/L			01/30/17 21:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/25/17 08:40	01/25/17 15:02	5
Arsenic	<0.46		1.3	0.46	ug/L		01/25/17 08:40	01/25/17 15:02	5
Barium	<0.49		2.5	0.49	ug/L		01/25/17 08:40	01/25/17 15:02	5
Beryllium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 15:02	5
Cadmium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 15:02	5
Chromium	<1.1		2.5	1.1	ug/L		01/25/17 08:40	01/25/17 15:02	5
Cobalt	<0.40		2.5	0.40	ug/L		01/25/17 08:40	01/25/17 15:02	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/25/17 08:40	01/25/17 15:02	5
Lead	<0.35		1.3	0.35	ug/L		01/25/17 08:40	01/25/17 15:02	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/25/17 08:40	01/25/17 15:02	5
Selenium	<0.24		1.3	0.24	ug/L		01/25/17 08:40	01/25/17 15:02	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/25/17 08:40	01/25/17 15:02	5
Thallium	<0.085		0.50	0.085	ug/L		01/25/17 08:40	01/25/17 15:02	5
<b>Vanadium</b>	<b>0.0021</b>	<b>J</b>	0.0025	0.0014	mg/L		01/25/17 08:40	01/25/17 15:02	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/25/17 08:40	01/25/17 15:02	5
Lithium	<3.2		5.0	3.2	ug/L		01/25/17 08:40	01/25/17 15:02	5
Calcium	<130		250	130	ug/L		01/25/17 08:40	01/25/17 15:02	5
Molybdenum	<0.85		15	0.85	ug/L		01/25/17 08:40	01/25/17 15:02	5
Boron	<21		50	21	ug/L		01/25/17 08:40	01/25/17 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		01/25/17 09:41	01/30/17 13:27	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			01/24/17 15:02	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Qualifiers

### HPLC/IC

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

### Metals

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 01/17/17 12:15**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	339378	01/21/17 01:39	KH1	TAL PEN
Total/NA	Analysis	300.0		1	340093	01/27/17 00:19	KH1	TAL PEN
Total Recoverable	Prep	3005A			339359	01/23/17 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339677	01/24/17 19:11	RJB	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339296	01/21/17 14:05	TET	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 01/17/17 14:35**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	339378	01/21/17 02:02	KH1	TAL PEN
Total/NA	Analysis	300.0		1	340093	01/27/17 00:41	KH1	TAL PEN
Total Recoverable	Prep	3005A			339359	01/23/17 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339677	01/24/17 19:15	RJB	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339296	01/21/17 14:05	TET	TAL PEN

**Client Sample ID: GWA-28**

**Date Collected: 01/17/17 17:16**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	339378	01/21/17 02:24	KH1	TAL PEN
Total/NA	Analysis	300.0		1	340093	01/27/17 01:04	KH1	TAL PEN
Total Recoverable	Prep	3005A			339359	01/23/17 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339677	01/24/17 19:20	RJB	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339296	01/21/17 14:05	TET	TAL PEN

**Client Sample ID: GWC-26**

**Date Collected: 01/19/17 11:00**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 18:19	KH1	TAL PEN
Total Recoverable	Prep	3005A			339359	01/23/17 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339677	01/24/17 19:24	RJB	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 01/19/17 11:00**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	RRC	TAL PEN

**Client Sample ID: GWA-2**

**Date Collected: 01/19/17 14:45**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 18:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			339359	01/23/17 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339677	01/24/17 19:29	RJB	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	RRC	TAL PEN

**Client Sample ID: GWA-1**

**Date Collected: 01/19/17 17:30**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 19:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			339359	01/23/17 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339677	01/24/17 19:33	RJB	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	RRC	TAL PEN

**Client Sample ID: GWC-27**

**Date Collected: 01/20/17 10:15**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 20:21	KH1	TAL PEN
Total Recoverable	Prep	3005A			339670	01/25/17 08:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339805	01/25/17 14:48	DRE	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	RRC	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Lab Sample ID: 400-132829-8**

**Date Collected: 01/20/17 00:00**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 20:43	KH1	TAL PEN
Total Recoverable	Prep	3005A			339670	01/25/17 08:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339805	01/25/17 14:53	DRE	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	RRC	TAL PEN

**Client Sample ID: FB-1**

**Lab Sample ID: 400-132829-9**

**Date Collected: 01/20/17 09:20**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 21:06	KH1	TAL PEN
Total Recoverable	Prep	3005A			339670	01/25/17 08:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339805	01/25/17 14:57	DRE	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	RRC	TAL PEN

**Client Sample ID: FERB-1**

**Lab Sample ID: 400-132829-10**

**Date Collected: 01/20/17 12:10**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340301	01/30/17 21:29	KH1	TAL PEN
Total Recoverable	Prep	3005A			339670	01/25/17 08:40	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	339805	01/25/17 15:02	DRE	TAL PEN
Total/NA	Prep	7470A			339698	01/25/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340341	01/30/17 13:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	339598	01/24/17 15:02	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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 339378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	300.0	
400-132829-2	GWA-4	Total/NA	Water	300.0	
400-132829-3	GWA-28	Total/NA	Water	300.0	
MB 400-339378/19	Method Blank	Total/NA	Water	300.0	
LCS 400-339378/20	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-339378/21	Lab Control Sample Dup	Total/NA	Water	300.0	
660-78392-E-9 MS	Matrix Spike	Total/NA	Water	300.0	
660-78392-E-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 340093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	300.0	
400-132829-2	GWA-4	Total/NA	Water	300.0	
400-132829-3	GWA-28	Total/NA	Water	300.0	
MB 400-340093/3	Method Blank	Total/NA	Water	300.0	
LCS 400-340093/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340093/5	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132731-B-6 MS	Matrix Spike	Total/NA	Water	300.0	
400-132731-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 340301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-4	GWC-26	Total/NA	Water	300.0	
400-132829-5	GWA-2	Total/NA	Water	300.0	
400-132829-6	GWA-1	Total/NA	Water	300.0	
400-132829-7	GWC-27	Total/NA	Water	300.0	
400-132829-8	DUP-1	Total/NA	Water	300.0	
400-132829-9	FB-1	Total/NA	Water	300.0	
400-132829-10	FERB-1	Total/NA	Water	300.0	
MB 400-340301/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340301/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340301/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132918-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-132918-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
400-132918-B-9 DU	Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 339359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total Recoverable	Water	3005A	
400-132829-2	GWA-4	Total Recoverable	Water	3005A	
400-132829-3	GWA-28	Total Recoverable	Water	3005A	
400-132829-4	GWC-26	Total Recoverable	Water	3005A	
400-132829-5	GWA-2	Total Recoverable	Water	3005A	
400-132829-6	GWA-1	Total Recoverable	Water	3005A	
MB 400-339359/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-339359/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132733-B-14-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-132733-B-14-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 339670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-7	GWC-27	Total Recoverable	Water	3005A	
400-132829-8	DUP-1	Total Recoverable	Water	3005A	
400-132829-9	FB-1	Total Recoverable	Water	3005A	
400-132829-10	FERB-1	Total Recoverable	Water	3005A	
MB 400-339670/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-339670/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132731-C-9-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-132731-C-9-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 339677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total Recoverable	Water	6020	339359
400-132829-2	GWA-4	Total Recoverable	Water	6020	339359
400-132829-3	GWA-28	Total Recoverable	Water	6020	339359
400-132829-4	GWC-26	Total Recoverable	Water	6020	339359
400-132829-5	GWA-2	Total Recoverable	Water	6020	339359
400-132829-6	GWA-1	Total Recoverable	Water	6020	339359
MB 400-339359/1-A ^5	Method Blank	Total Recoverable	Water	6020	339359
LCS 400-339359/2-A	Lab Control Sample	Total Recoverable	Water	6020	339359
400-132733-B-14-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	339359
400-132733-B-14-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	339359

### Prep Batch: 339698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	7470A	
400-132829-2	GWA-4	Total/NA	Water	7470A	
400-132829-3	GWA-28	Total/NA	Water	7470A	
400-132829-4	GWC-26	Total/NA	Water	7470A	
400-132829-5	GWA-2	Total/NA	Water	7470A	
400-132829-6	GWA-1	Total/NA	Water	7470A	
400-132829-7	GWC-27	Total/NA	Water	7470A	
400-132829-8	DUP-1	Total/NA	Water	7470A	
400-132829-9	FB-1	Total/NA	Water	7470A	
400-132829-10	FERB-1	Total/NA	Water	7470A	
MB 400-339698/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-339698/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-132829-2 MS	GWA-4	Total/NA	Water	7470A	
400-132829-2 MSD	GWA-4	Total/NA	Water	7470A	

### Analysis Batch: 339805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-7	GWC-27	Total Recoverable	Water	6020	339670
400-132829-8	DUP-1	Total Recoverable	Water	6020	339670
400-132829-9	FB-1	Total Recoverable	Water	6020	339670
400-132829-10	FERB-1	Total Recoverable	Water	6020	339670
MB 400-339670/1-A ^5	Method Blank	Total Recoverable	Water	6020	339670
LCS 400-339670/2-A	Lab Control Sample	Total Recoverable	Water	6020	339670
400-132731-C-9-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	339670
400-132731-C-9-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	339670

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 340341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	7470A	339698
400-132829-2	GWA-4	Total/NA	Water	7470A	339698
400-132829-3	GWA-28	Total/NA	Water	7470A	339698
400-132829-4	GWC-26	Total/NA	Water	7470A	339698
400-132829-5	GWA-2	Total/NA	Water	7470A	339698
400-132829-6	GWA-1	Total/NA	Water	7470A	339698
400-132829-7	GWC-27	Total/NA	Water	7470A	339698
400-132829-8	DUP-1	Total/NA	Water	7470A	339698
400-132829-9	FB-1	Total/NA	Water	7470A	339698
400-132829-10	FERB-1	Total/NA	Water	7470A	339698
MB 400-339698/14-A	Method Blank	Total/NA	Water	7470A	339698
LCS 400-339698/15-A	Lab Control Sample	Total/NA	Water	7470A	339698
400-132829-2 MS	GWA-4	Total/NA	Water	7470A	339698
400-132829-2 MSD	GWA-4	Total/NA	Water	7470A	339698

## General Chemistry

### Analysis Batch: 339296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	SM 2540C	
400-132829-2	GWA-4	Total/NA	Water	SM 2540C	
400-132829-3	GWA-28	Total/NA	Water	SM 2540C	
MB 400-339296/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-339296/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132810-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 339598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-4	GWC-26	Total/NA	Water	SM 2540C	
400-132829-5	GWA-2	Total/NA	Water	SM 2540C	
400-132829-6	GWA-1	Total/NA	Water	SM 2540C	
400-132829-7	GWC-27	Total/NA	Water	SM 2540C	
400-132829-8	DUP-1	Total/NA	Water	SM 2540C	
400-132829-9	FB-1	Total/NA	Water	SM 2540C	
400-132829-10	FERB-1	Total/NA	Water	SM 2540C	
MB 400-339598/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-339598/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132829-5 DU	GWA-2	Total/NA	Water	SM 2540C	
400-132829-7 DU	GWC-27	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-339378/19**  
**Matrix: Water**  
**Analysis Batch: 339378**

**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			01/20/17 16:08	1
Fluoride	<0.082		0.20	0.082	mg/L			01/20/17 16:08	1
Sulfate	<0.70		1.0	0.70	mg/L			01/20/17 16:08	1

**Lab Sample ID: LCS 400-339378/20**  
**Matrix: Water**  
**Analysis Batch: 339378**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.4		mg/L		104	90 - 110
Fluoride	10.0	9.45		mg/L		95	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

**Lab Sample ID: LCSD 400-339378/21**  
**Matrix: Water**  
**Analysis Batch: 339378**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	90 - 110	1	15
Fluoride	10.0	10.8		mg/L		108	90 - 110	13	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	2	15

**Lab Sample ID: 660-78392-E-9 MS**  
**Matrix: Water**  
**Analysis Batch: 339378**

**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	6.1		10.0	17.6		mg/L		115	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	29		10.0	39.5		mg/L		108	80 - 120

**Lab Sample ID: 660-78392-E-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 339378**

**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	6.1		10.0	17.2		mg/L		110	80 - 120	3	20
Fluoride	<0.082		10.0	11.3		mg/L		113	80 - 120	10	20
Sulfate	29		10.0	39.3		mg/L		106	80 - 120	1	20

**Lab Sample ID: MB 400-340093/3**  
**Matrix: Water**  
**Analysis Batch: 340093**

**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			01/26/17 19:45	1
Fluoride	<0.082		0.20	0.082	mg/L			01/26/17 19:45	1
Sulfate	<0.70		1.0	0.70	mg/L			01/26/17 19:45	1

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-340093/4**  
**Matrix: Water**  
**Analysis Batch: 340093**

**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	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-340093/5**  
**Matrix: Water**  
**Analysis Batch: 340093**

**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	9.79		mg/L		98	90 - 110	1	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

**Lab Sample ID: 400-132731-B-6 MS**  
**Matrix: Water**  
**Analysis Batch: 340093**

**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	10		50.0	58.0		mg/L		96	80 - 120
Fluoride	<0.41		50.0	52.7		mg/L		105	80 - 120
Sulfate	150		50.0	195		mg/L		83	80 - 120

**Lab Sample ID: 400-132731-B-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 340093**

**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	10		50.0	58.0		mg/L		96	80 - 120	0	20
Fluoride	<0.41		50.0	52.7		mg/L		105	80 - 120	0	20
Sulfate	150		50.0	195		mg/L		83	80 - 120	0	20

**Lab Sample ID: MB 400-340301/4**  
**Matrix: Water**  
**Analysis Batch: 340301**

**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			01/30/17 11:05	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 11:05	1
Sulfate	<0.70		1.0	0.70	mg/L			01/30/17 11:05	1

**Lab Sample ID: LCS 400-340301/5**  
**Matrix: Water**  
**Analysis Batch: 340301**

**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	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-340301/6**  
**Matrix: Water**  
**Analysis Batch: 340301**

**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	10.6		mg/L		106	90 - 110	1	15

**Lab Sample ID: 400-132918-B-1 MS**  
**Matrix: Water**  
**Analysis Batch: 340301**

**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	4.6		10.0	14.2		mg/L		96	80 - 120		
Fluoride	0.089	J	10.0	10.5		mg/L		105	80 - 120		
Sulfate	6.3		10.0	16.6		mg/L		103	80 - 120		

**Lab Sample ID: 400-132918-B-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 340301**

**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	4.6		10.0	14.2		mg/L		96	80 - 120	0	20
Fluoride	0.089	J	10.0	10.5		mg/L		104	80 - 120	0	20
Sulfate	6.3		10.0	16.6		mg/L		103	80 - 120	0	20

**Lab Sample ID: 400-132918-B-9 DU**  
**Matrix: Water**  
**Analysis Batch: 340301**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	5.4		5.45		mg/L		0.2	20
Fluoride	<0.082		<0.082		mg/L		NC	20
Sulfate	<0.70		<0.70		mg/L		NC	20

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

**Lab Sample ID: MB 400-339359/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 339677**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339359**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/23/17 09:20	01/24/17 16:56	5
Arsenic	<0.46		1.3	0.46	ug/L		01/23/17 09:20	01/24/17 16:56	5
Barium	<0.49		2.5	0.49	ug/L		01/23/17 09:20	01/24/17 16:56	5
Beryllium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 16:56	5
Cadmium	<0.34		2.5	0.34	ug/L		01/23/17 09:20	01/24/17 16:56	5
Chromium	<1.1		2.5	1.1	ug/L		01/23/17 09:20	01/24/17 16:56	5
Cobalt	<0.40		2.5	0.40	ug/L		01/23/17 09:20	01/24/17 16:56	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/23/17 09:20	01/24/17 16:56	5
Lead	<0.35		1.3	0.35	ug/L		01/23/17 09:20	01/24/17 16:56	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/23/17 09:20	01/24/17 16:56	5
Selenium	<0.24		1.3	0.24	ug/L		01/23/17 09:20	01/24/17 16:56	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-339359/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 339677**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339359**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.00025	0.00011	mg/L		01/23/17 09:20	01/24/17 16:56	5
Thallium	<0.085		0.50	0.085	ug/L		01/23/17 09:20	01/24/17 16:56	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/23/17 09:20	01/24/17 16:56	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/23/17 09:20	01/24/17 16:56	5
Lithium	<3.2		5.0	3.2	ug/L		01/23/17 09:20	01/24/17 16:56	5
Calcium	<130		250	130	ug/L		01/23/17 09:20	01/24/17 16:56	5
Molybdenum	<0.85		15	0.85	ug/L		01/23/17 09:20	01/24/17 16:56	5
Boron	<21		50	21	ug/L		01/23/17 09:20	01/24/17 16:56	5

**Lab Sample ID: LCS 400-339359/2-A**  
**Matrix: Water**  
**Analysis Batch: 339677**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339359**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	53.3		ug/L		107	80 - 120
Arsenic	50.0	50.8		ug/L		102	80 - 120
Barium	50.0	52.9		ug/L		106	80 - 120
Beryllium	50.0	54.6		ug/L		109	80 - 120
Cadmium	50.0	52.3		ug/L		105	80 - 120
Chromium	50.0	49.2		ug/L		98	80 - 120
Cobalt	50.0	48.0		ug/L		96	80 - 120
Copper	0.0500	0.0501		mg/L		100	80 - 120
Lead	50.0	51.9		ug/L		104	80 - 120
Nickel	0.0500	0.0496		mg/L		99	80 - 120
Selenium	50.0	49.7		ug/L		99	80 - 120
Silver	0.0500	0.0522		mg/L		104	80 - 120
Thallium	10.0	10.7		ug/L		107	80 - 120
Vanadium	0.0500	0.0490		mg/L		98	80 - 120
Zinc	0.0500	0.0502		mg/L		100	80 - 120
Lithium	50.0	52.4		ug/L		105	80 - 120
Calcium	5000	4820		ug/L		96	80 - 120
Molybdenum	100	103		ug/L		103	80 - 120
Boron	100	98.6		ug/L		99	80 - 120

**Lab Sample ID: 400-132733-B-14-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 339677**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339359**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<1.0		50.0	52.3		ug/L		105	75 - 125
Arsenic	<0.46		50.0	50.9		ug/L		102	75 - 125
Barium	81		50.0	134		ug/L		105	75 - 125
Beryllium	0.34	J	50.0	57.7		ug/L		115	75 - 125
Cadmium	<0.34		50.0	51.4		ug/L		103	75 - 125
Chromium	<1.1		50.0	49.6		ug/L		99	75 - 125
Cobalt	4.7		50.0	53.7		ug/L		98	75 - 125
Copper	<0.0021		0.0500	0.0512		mg/L		102	75 - 125
Lead	<0.35		50.0	53.3		ug/L		107	75 - 125
Nickel	0.0036		0.0500	0.0536		mg/L		100	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-132733-B-14-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 339677**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339359**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	<0.24		50.0	49.7		ug/L		99	75 - 125
Silver	<0.00011		0.0500	0.0529		mg/L		106	75 - 125
Thallium	<0.085		10.0	10.8		ug/L		108	75 - 125
Vanadium	<0.0014		0.0500	0.0493		mg/L		99	75 - 125
Zinc	0.022		0.0500	0.0662		mg/L		87	75 - 125
Lithium	<3.2		50.0	56.5		ug/L		113	75 - 125
Calcium	1800		5000	6790		ug/L		100	75 - 125
Molybdenum	<0.85		100	102		ug/L		102	75 - 125
Boron	<21		100	111		ug/L		111	75 - 125

**Lab Sample ID: 400-132733-B-14-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 339677**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339359**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<1.0		50.0	53.6		ug/L		107	75 - 125	2	20
Arsenic	<0.46		50.0	52.0		ug/L		104	75 - 125	2	20
Barium	81		50.0	136		ug/L		109	75 - 125	1	20
Beryllium	0.34	J	50.0	58.0		ug/L		115	75 - 125	1	20
Cadmium	<0.34		50.0	55.1		ug/L		110	75 - 125	7	20
Chromium	<1.1		50.0	50.5		ug/L		101	75 - 125	2	20
Cobalt	4.7		50.0	54.3		ug/L		99	75 - 125	1	20
Copper	<0.0021		0.0500	0.0520		mg/L		104	75 - 125	2	20
Lead	<0.35		50.0	52.6		ug/L		105	75 - 125	1	20
Nickel	0.0036		0.0500	0.0559		mg/L		105	75 - 125	4	20
Selenium	<0.24		50.0	50.6		ug/L		101	75 - 125	2	20
Silver	<0.00011		0.0500	0.0540		mg/L		108	75 - 125	2	20
Thallium	<0.085		10.0	10.8		ug/L		108	75 - 125	1	20
Vanadium	<0.0014		0.0500	0.0505		mg/L		101	75 - 125	2	20
Zinc	0.022		0.0500	0.0696		mg/L		94	75 - 125	5	20
Lithium	<3.2		50.0	58.8		ug/L		118	75 - 125	4	20
Calcium	1800		5000	6830		ug/L		101	75 - 125	1	20
Molybdenum	<0.85		100	104		ug/L		104	75 - 125	2	20
Boron	<21		100	110		ug/L		110	75 - 125	1	20

**Lab Sample ID: MB 400-339670/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 339805**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339670**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.5	1.0	ug/L		01/25/17 08:40	01/25/17 14:39	5
Arsenic	<0.46		1.3	0.46	ug/L		01/25/17 08:40	01/25/17 14:39	5
Barium	<0.49		2.5	0.49	ug/L		01/25/17 08:40	01/25/17 14:39	5
Beryllium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:39	5
Cadmium	<0.34		2.5	0.34	ug/L		01/25/17 08:40	01/25/17 14:39	5
Chromium	<1.1		2.5	1.1	ug/L		01/25/17 08:40	01/25/17 14:39	5
Cobalt	<0.40		2.5	0.40	ug/L		01/25/17 08:40	01/25/17 14:39	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/25/17 08:40	01/25/17 14:39	5
Lead	<0.35		1.3	0.35	ug/L		01/25/17 08:40	01/25/17 14:39	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-339670/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 339805**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339670**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.0018		0.0025	0.0018	mg/L		01/25/17 08:40	01/25/17 14:39	5
Selenium	<0.24		1.3	0.24	ug/L		01/25/17 08:40	01/25/17 14:39	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/25/17 08:40	01/25/17 14:39	5
Thallium	<0.085		0.50	0.085	ug/L		01/25/17 08:40	01/25/17 14:39	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/25/17 08:40	01/25/17 14:39	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/25/17 08:40	01/25/17 14:39	5
Lithium	<3.2		5.0	3.2	ug/L		01/25/17 08:40	01/25/17 14:39	5
Calcium	<130		250	130	ug/L		01/25/17 08:40	01/25/17 14:39	5
Molybdenum	<0.85		15	0.85	ug/L		01/25/17 08:40	01/25/17 14:39	5
Boron	<21		50	21	ug/L		01/25/17 08:40	01/25/17 14:39	5

**Lab Sample ID: LCS 400-339670/2-A**  
**Matrix: Water**  
**Analysis Batch: 339805**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339670**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	54.1		ug/L		108	80 - 120
Arsenic	50.0	51.2		ug/L		102	80 - 120
Barium	50.0	55.2		ug/L		110	80 - 120
Beryllium	50.0	53.3		ug/L		107	80 - 120
Cadmium	50.0	48.9		ug/L		98	80 - 120
Chromium	50.0	47.3		ug/L		95	80 - 120
Cobalt	50.0	47.2		ug/L		94	80 - 120
Copper	0.0500	0.0452		mg/L		90	80 - 120
Lead	50.0	49.1		ug/L		98	80 - 120
Nickel	0.0500	0.0489		mg/L		98	80 - 120
Selenium	50.0	49.9		ug/L		100	80 - 120
Silver	0.0500	0.0492		mg/L		98	80 - 120
Thallium	10.0	10.1		ug/L		101	80 - 120
Vanadium	0.0500	0.0501		mg/L		100	80 - 120
Zinc	0.0500	0.0489		mg/L		98	80 - 120
Lithium	50.0	51.4		ug/L		103	80 - 120
Calcium	5000	5150		ug/L		103	80 - 120
Molybdenum	100	97.1		ug/L		97	80 - 120
Boron	100	114		ug/L		114	80 - 120

**Lab Sample ID: 400-132731-C-9-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 339805**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339670**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<1.0		50.0	55.8		ug/L		112	75 - 125
Arsenic	<0.46		50.0	52.1		ug/L		104	75 - 125
Barium	60		50.0	115		ug/L		109	75 - 125
Beryllium	<0.34		50.0	52.1		ug/L		104	75 - 125
Cadmium	8.0		50.0	57.2		ug/L		99	75 - 125
Chromium	<1.1	F2 F1	50.0	48.2		ug/L		96	75 - 125
Cobalt	3.2		50.0	51.0		ug/L		95	75 - 125
Copper	<0.0021	F2 F1	0.0500	0.0472		mg/L		94	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-132731-C-9-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 339805**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339670**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	<0.35		50.0	50.6		ug/L		101	75 - 125
Nickel	0.0078		0.0500	0.0566		mg/L		98	75 - 125
Selenium	<0.24		50.0	50.5		ug/L		101	75 - 125
Silver	<0.00011		0.0500	0.0511		mg/L		102	75 - 125
Thallium	<0.085		10.0	10.5		ug/L		105	75 - 125
Vanadium	0.0019	J	0.0500	0.0511		mg/L		98	75 - 125
Zinc	<0.0065	F2 F1	0.0500	0.0507		mg/L		101	75 - 125
Lithium	5.1		50.0	55.4		ug/L		101	75 - 125
Molybdenum	<0.85		100	102		ug/L		102	75 - 125

**Lab Sample ID: 400-132731-C-9-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 339805**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 339670**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<1.0		50.0	54.2		ug/L		108	75 - 125	3	20
Arsenic	<0.46		50.0	51.7		ug/L		103	75 - 125	1	20
Barium	60		50.0	115		ug/L		109	75 - 125	0	20
Beryllium	<0.34		50.0	52.4		ug/L		105	75 - 125	1	20
Cadmium	8.0		50.0	58.6		ug/L		101	75 - 125	2	20
Cobalt	3.2		50.0	51.0		ug/L		96	75 - 125	0	20
Lead	<0.35		50.0	51.5		ug/L		103	75 - 125	2	20
Nickel	0.0078		0.0500	0.0590		mg/L		102	75 - 125	4	20
Selenium	<0.24		50.0	50.6		ug/L		101	75 - 125	0	20
Silver	<0.00011		0.0500	0.0517		mg/L		103	75 - 125	1	20
Thallium	<0.085		10.0	10.4		ug/L		104	75 - 125	1	20
Vanadium	0.0019	J	0.0500	0.0514		mg/L		99	75 - 125	1	20
Lithium	5.1		50.0	55.5		ug/L		101	75 - 125	0	20
Molybdenum	<0.85		100	102		ug/L		102	75 - 125	0	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-339698/14-A**  
**Matrix: Water**  
**Analysis Batch: 340341**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 339698**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000746	J	0.00020	0.000070	mg/L		01/25/17 09:40	01/30/17 13:01	1

**Lab Sample ID: LCS 400-339698/15-A**  
**Matrix: Water**  
**Analysis Batch: 340341**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 339698**

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

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-132829-2 MS**  
**Matrix: Water**  
**Analysis Batch: 340341**

**Client Sample ID: GWA-4**  
**Prep Type: Total/NA**  
**Prep Batch: 339698**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00199		mg/L		99	80 - 120

**Lab Sample ID: 400-132829-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 340341**

**Client Sample ID: GWA-4**  
**Prep Type: Total/NA**  
**Prep Batch: 339698**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00204		mg/L		101	80 - 120	2	20

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

**Lab Sample ID: MB 400-339296/1**  
**Matrix: Water**  
**Analysis Batch: 339296**

**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			01/21/17 14:05	1

**Lab Sample ID: LCS 400-339296/2**  
**Matrix: Water**  
**Analysis Batch: 339296**

**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	254		mg/L		87	78 - 122

**Lab Sample ID: 400-132810-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 339296**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	<3.4		<3.4		mg/L		NC	5

**Lab Sample ID: MB 400-339598/1**  
**Matrix: Water**  
**Analysis Batch: 339598**

**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			01/24/17 15:02	1

**Lab Sample ID: LCS 400-339598/2**  
**Matrix: Water**  
**Analysis Batch: 339598**

**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	264		mg/L		90	78 - 122

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-1  
 SDG: Gypsum Landfill

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

**Lab Sample ID: 400-132829-5 DU**  
**Matrix: Water**  
**Analysis Batch: 339598**

**Client Sample ID: GWA-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	28		28.0		mg/L		0	5

**Lab Sample ID: 400-132829-7 DU**  
**Matrix: Water**  
**Analysis Batch: 339598**

**Client Sample ID: GWC-27**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	38		38.0		mg/L		0	5

- 1
- 2
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- 10
- 11
- 12
- 13
- 14



**Chain of Custody Record**


**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax: (850) 478-2871

Lab File: Whitins, Cheyenne R  
E-Mail: cheyenne.whitins@testamerica.com  
Sampler: T. Penn, M. Thomas, M. Whitins  
Phone:

Client Information  
Company: Southern Company  
Address: 241 Ralph McGill Blvd SE B10185  
City: Atlanta  
State, Zip: GA, 30308  
Phone: 404-506-7239  
Email: JAbraham@southern.com  
Project Name: Plant Wansley - Gypsum Landfill  
Site: CCR & State Permit

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Asst, Suppl, Composite, Other)
GWA-28	11/17/17	1215	G	W
GWA-4	11/17/17	1435	G	W
GWA-28	11/17/17	1716	G	W

Analysis Requested:  
 TDS - GM 8690C | OLF-504 - EPA 300  
 Metals - (Part 257 Appendix III & IV) EPA 602 & EPA 740  
 Metals State Permit (EPA 602)  
 Cu, Ni, Pb, Ag, V, Zn  
 460-132828 COC

Carrier Tracking Note:  
  
 460-132828 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:

Special Instructions/Notes:  
 Return To Client  
 Disposed By Lab  
 Archive For \_\_\_\_\_ Months

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

Method of Shipment:  
 Date Rec'd: 11/18/17 1445  
 Date Rec'd: 11/18/17 1445  
 Date Rec'd: 11/19/17 0848  
 Company: ESM  
 Company: ESM  
 Company: ESM

Custody Seal No.: 370C IR 6



Chain of Custody Record

TestAmerica Pensacola  
 3838 McLennan Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2571

Client Information  
 Client Contact: Joji Abraham  
 Company: Southern Company  
 Address: 241 Babitt McGill Blvd SE B10185  
 City: Atlanta  
 State/Zip: GA, 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southern.com  
 Project Name: Plant Wensley - Gypsum Landfill  
 Site: CCR & State Permit

Sample Information  
 Sample: T Payne Tr. M. Thomas #1  
 Date Rec'd: 11/20/17  
 Matrix: W/amine, Cheyenne R  
 Phone: (cheyenne.whitire@testamericainc.com)

Analyses Requested

Sample ID	Sample Date	Sample Time	Sample Type (Carbonyl, Ge-Grab)	Matrix (None, Carbonyl, Ge-Grab, Other)	Analysis	Method
GWA-2S	11/9/17	1100	G	W	TD - SM 2010C, Cl.F, P, O, A - EPA 308	X
GWA-2	11/9/17	1445	G	W	Mobile - Part 207 Appendix III & IV, EPA 6020 & EPA 7470	X
GWA-1	11/9/17	1730	G	W	Mobile - Part 207 Appendix III & IV, EPA 6020 & EPA 7470	X

Special Instructions/Note:  
 400-132228 COC

Preservation Codes:  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - HNO3  
 F - H2SO4  
 G - H2O2  
 H - Acetic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - FDA  
 Other:  
 M - None  
 N - None  
 O - H2O2  
 P - NaOH  
 Q - NaOH  
 R - NaOH  
 S - NaOH  
 T - H2O  
 U - None  
 V - H2O  
 W - pH 4.5  
 Z - other (specify)

Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological  
 Deliverable Reagent: I, II, III, IV, Other (specify)

Empty Kit Requisitioned by:  
 Requisitioned by: [Signature]  
 Date: 11/20/17  
 Requisitioned by: [Signature]  
 Date: 11/20/17  
 Requisitioned by: [Signature]  
 Date: 11/20/17

Custody Seal: [Signature]  
 Date: 11/20/17  
 Seal No.: 29°C IR 7



**Chain of Custody Record**

TestAmerica Pensacola  
3355 McLamore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
Client Contact:  
Julu Abraham  
Company:  
Southern Company

Lab P/L:  
Whittruff, Chetyenne R  
E-Mail:  
chetyenne.whittruff@testamerica.com

Carrier Tracking No( ):  
GOC No:  
Page:  
Job #:

Address:  
241 Ralph McGill Blvd SE B10185  
City:  
Alliantia  
State, Zip:  
GA, 30308  
Phone:  
404-505-7239  
Email:  
JAbraham@southern.com  
Project Name:  
Plant Wamsley - Gypsum Landfill  
Site:  
CCR & State Permit

Date Date Requested:  
TAT Requested (days):  
PO #:  
WO #:  
Project #:  
SOW #:

**Analysis Requested**

- Preservation Codes:  
A - HCl  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - NaOH  
G - Ammonia  
H - Ascorbic Acid  
I - Ice  
J - DI Water  
K - EDTA  
L - BDA  
Other:  
M - Hexane  
N - None  
O - As/NaO2  
P - Na2OAS  
Q - Na2SO3  
R - NaHSO3  
S - H2SO4  
T - TSP Ductaldehydals  
U - Acetone  
V - MCAA  
W - pH 4.3  
Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Inorganic, Organic, Swab, Other)	Analysis Requested	Special Instructions/Notes
GWOC-27	1/20/17	1015	G	W	TS - BM 2400 Cl,F,S,O4 - EPA 300 Metals - (Part 257 Appendix III & IV) EPA 0020 & EPA 7470 Radium X26 & X28 - SW-846 93-16 & 9320 Metals State Permit (EPA 9120) Op. M, 5b, Aq, V, Zn	
DUP-1	1/20/17	-	G	W		
FB-1	1/20/17	0820	G	W		
PERB-1	1/20/17	1210	G	W		

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: 01/20/2017 14:45 Company: SAH  
Relinquished by: \_\_\_\_\_ Date: 1/20/17 1645 Company: JAB  
Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
Custody Seal's Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
A Yes A No



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-132829-1  
SDG Number: Gypsum Landfill

**Login Number: 132829**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	3.7°C IR-6, 2.9°C, 2.2°C IR-7, 1.3°C IR-2, 0.0°C, 2.6°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 Wansley

TestAmerica Job ID: 400-132829-1  
SDG: Gypsum Landfill

## 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
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	12-30-16 *
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

\* Certification renewal pending - 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: 400-132829-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/24/2017 10:24:09 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Job ID: 400-132829-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-132829-2

#### RAD

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-289149: Insufficient volume was available for a sample duplicate (DU) to be run with the batch. An LCS/LCSD was prepared to demonstrate batch precision. GWA-29 (400-132829-1), GWA-4 (400-132829-2), GWA-28 (400-132829-3), GWC-26 (400-132829-4), GWA-2 (400-132829-5), GWA-1 (400-132829-6), GWC-27 (400-132829-7), DUP-1 (400-132829-8), FB-1 (400-132829-9) and FERB-1 (400-132829-10)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-289147: Insufficient sample volume was available to perform a sample duplicate (DU). An LCS/LCSD was prepared to demonstrate batch precision. GWA-29 (400-132829-1), GWA-4 (400-132829-2), GWA-28 (400-132829-3), GWC-26 (400-132829-4), GWA-2 (400-132829-5), GWA-1 (400-132829-6), GWC-27 (400-132829-7), DUP-1 (400-132829-8), FB-1 (400-132829-9) and FERB-1 (400-132829-10)





# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132829-1	GWA-29	Water	01/17/17 12:15	01/19/17 08:48
400-132829-2	GWA-4	Water	01/17/17 14:35	01/19/17 08:48
400-132829-3	GWA-28	Water	01/17/17 17:16	01/19/17 08:48
400-132829-4	GWC-26	Water	01/19/17 11:00	01/21/17 09:07
400-132829-5	GWA-2	Water	01/19/17 14:45	01/21/17 09:07
400-132829-6	GWA-1	Water	01/19/17 17:30	01/21/17 09:07
400-132829-7	GWC-27	Water	01/20/17 10:15	01/21/17 09:07
400-132829-8	DUP-1	Water	01/20/17 00:00	01/21/17 09:07
400-132829-9	FB-1	Water	01/20/17 09:20	01/21/17 09:07
400-132829-10	FERB-1	Water	01/20/17 12:10	01/21/17 09:07

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 01/17/17 12:15**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00474	U	0.128	0.128	1.00	0.260	pCi/L	01/25/17 11:04	02/18/17 12:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.7		40 - 110					01/25/17 11:04	02/18/17 12:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0705	U	0.367	0.367	1.00	0.639	pCi/L	01/25/17 11:49	02/15/17 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.7		40 - 110					01/25/17 11:49	02/15/17 17:53	1
Y Carrier	84.5		40 - 110					01/25/17 11:49	02/15/17 17:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0658	U	0.388	0.388	5.00	0.639	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 01/17/17 14:35**  
**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.358		0.204	0.207	1.00	0.265	pCi/L	01/25/17 11:04	02/18/17 12:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.1		40 - 110					01/25/17 11:04	02/18/17 12:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.958		0.464	0.472	1.00	0.689	pCi/L	01/25/17 11:49	02/15/17 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.1		40 - 110					01/25/17 11:49	02/15/17 17:53	1
Y Carrier	84.1		40 - 110					01/25/17 11:49	02/15/17 17:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.32		0.507	0.515	5.00	0.689	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 01/17/17 17:16**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-3**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199	U	0.180	0.181	1.00	0.279	pCi/L	01/25/17 11:04	02/18/17 12:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.6		40 - 110					01/25/17 11:04	02/18/17 12:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.106	U	0.320	0.320	1.00	0.588	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.6		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	86.0		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0927	U	0.368	0.368	5.00	0.588	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 01/19/17 11:00**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-4**

**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	0.104	U	0.164	0.164	1.00	0.285	pCi/L	01/25/17 11:04	02/18/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	44.8		40 - 110					01/25/17 11:04	02/18/17 14:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.702	U	0.578	0.582	1.00	0.923	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	44.8		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	84.1		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.805	U	0.601	0.604	5.00	0.923	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 01/19/17 14:45**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-5**  
**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	0.101	U	0.122	0.122	1.00	0.200	pCi/L	01/25/17 11:04	02/18/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		40 - 110					01/25/17 11:04	02/18/17 14:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.361	U	0.287	0.289	1.00	0.454	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	85.6		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.462		0.312	0.313	5.00	0.454	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 01/19/17 17:30**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-6**  
**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	0.0417	U	0.103	0.103	1.00	0.193	pCi/L	01/25/17 11:04	02/18/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.6		40 - 110					01/25/17 11:04	02/18/17 14:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0764	U	0.245	0.245	1.00	0.426	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	83.0		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.118	U	0.265	0.266	5.00	0.426	pCi/L		02/20/17 09:41	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**

**Date Collected: 01/20/17 10:15**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-7**

**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	1.24		0.301	0.321	1.00	0.262	pCi/L	01/25/17 11:04	02/18/17 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.8		40 - 110					01/25/17 11:04	02/18/17 14:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.07		0.455	0.493	1.00	0.517	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.8		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	82.2		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.31		0.545	0.589	5.00	0.517	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**  
**Date Collected: 01/20/17 00:00**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-8**  
**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	1.32		0.297	0.320	1.00	0.203	pCi/L	01/25/17 11:04	02/18/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.5		40 - 110					01/25/17 11:04	02/18/17 14:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.31		0.451	0.498	1.00	0.473	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.5		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	84.5		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.63		0.540	0.592	5.00	0.473	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 01/20/17 09:20**  
**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-9**  
**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	0.0212	U	0.108	0.108	1.00	0.206	pCi/L	01/25/17 11:04	02/18/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					01/25/17 11:04	02/18/17 14:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.209	U	0.251	0.252	1.00	0.414	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	84.9		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.230	U	0.273	0.274	5.00	0.414	pCi/L		02/20/17 09:41	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Lab Sample ID: 400-132829-10**

**Date Collected: 01/20/17 12:10**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0656	U	0.125	0.125	1.00	0.222	pCi/L	01/25/17 11:04	02/18/17 14:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					01/25/17 11:04	02/18/17 14:29	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.232	U	0.263	0.264	1.00	0.516	pCi/L	01/25/17 11:49	02/15/17 17:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					01/25/17 11:49	02/15/17 17:54	1
Y Carrier	79.6		40 - 110					01/25/17 11:49	02/15/17 17:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.166	U	0.291	0.292	5.00	0.516	pCi/L		02/20/17 09:41	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 01/17/17 12:15**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 12:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: GWA-4**

**Date Collected: 01/17/17 14:35**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 12:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: GWA-28**

**Date Collected: 01/17/17 17:16**

**Date Received: 01/19/17 08:48**

**Lab Sample ID: 400-132829-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 12:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: GWC-26**

**Date Collected: 01/19/17 11:00**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**

**Date Collected: 01/19/17 14:45**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: GWA-1**

**Date Collected: 01/19/17 17:30**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: GWC-27**

**Date Collected: 01/20/17 10:15**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: DUP-1**

**Date Collected: 01/20/17 00:00**

**Date Received: 01/21/17 09:07**

**Lab Sample ID: 400-132829-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**

**Lab Sample ID: 400-132829-9**

**Date Collected: 01/20/17 09:20**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	RTM	TAL SL

**Client Sample ID: FERB-1**

**Lab Sample ID: 400-132829-10**

**Date Collected: 01/20/17 12:10**

**Matrix: Water**

**Date Received: 01/21/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			289147	01/25/17 11:04	MBC	TAL SL
Total/NA	Analysis	9315		1	293146	02/18/17 14:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			289149	01/25/17 11:49	MBC	TAL SL
Total/NA	Analysis	9320		1	292648	02/15/17 17:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	293353	02/20/17 09:41	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 Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 289147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	PrecSep-21	
400-132829-2	GWA-4	Total/NA	Water	PrecSep-21	
400-132829-3	GWA-28	Total/NA	Water	PrecSep-21	
400-132829-4	GWC-26	Total/NA	Water	PrecSep-21	
400-132829-5	GWA-2	Total/NA	Water	PrecSep-21	
400-132829-6	GWA-1	Total/NA	Water	PrecSep-21	
400-132829-7	GWC-27	Total/NA	Water	PrecSep-21	
400-132829-8	DUP-1	Total/NA	Water	PrecSep-21	
400-132829-9	FB-1	Total/NA	Water	PrecSep-21	
400-132829-10	FERB-1	Total/NA	Water	PrecSep-21	
MB 160-289147/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-289147/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-289147/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 289149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-1	GWA-29	Total/NA	Water	PrecSep_0	
400-132829-2	GWA-4	Total/NA	Water	PrecSep_0	
400-132829-3	GWA-28	Total/NA	Water	PrecSep_0	
400-132829-4	GWC-26	Total/NA	Water	PrecSep_0	
400-132829-5	GWA-2	Total/NA	Water	PrecSep_0	
400-132829-6	GWA-1	Total/NA	Water	PrecSep_0	
400-132829-7	GWC-27	Total/NA	Water	PrecSep_0	
400-132829-8	DUP-1	Total/NA	Water	PrecSep_0	
400-132829-9	FB-1	Total/NA	Water	PrecSep_0	
400-132829-10	FERB-1	Total/NA	Water	PrecSep_0	
MB 160-289149/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-289149/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-289149/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-289147/1-A**  
**Matrix: Water**  
**Analysis Batch: 293146**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 289147**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02669	U	0.0970	0.0970	1.00	0.188	pCi/L	01/25/17 11:04	02/18/17 12:36	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					01/25/17 11:04	02/18/17 12:36	1

**Lab Sample ID: LCS 160-289147/2-A**  
**Matrix: Water**  
**Analysis Batch: 293146**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 289147**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	6.01	7.783		0.957	1.00	0.234	pCi/L	130	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	82.9		40 - 110						

**Lab Sample ID: LCSD 160-289147/3-A**  
**Matrix: Water**  
**Analysis Batch: 293146**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 289147**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	6.01	7.294		0.905	1.00	0.178	pCi/L	121	68 - 137	0.26	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	84.7		40 - 110								

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

**Lab Sample ID: MB 160-289149/1-A**  
**Matrix: Water**  
**Analysis Batch: 292630**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 289149**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3809	U	0.297	0.299	1.00	0.470	pCi/L	01/25/17 11:49	02/15/17 17:46	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					01/25/17 11:49	02/15/17 17:46	1
Y Carrier	81.1		40 - 110					01/25/17 11:49	02/15/17 17:46	1

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-289149/2-A**  
**Matrix: Water**  
**Analysis Batch: 292648**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 289149**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	15.74		1.71	1.00	0.461	pCi/L	114	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	82.9		40 - 110
Y Carrier	84.9		40 - 110

**Lab Sample ID: LCSD 160-289149/3-A**  
**Matrix: Water**  
**Analysis Batch: 292648**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 289149**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.8	14.19		1.58	1.00	0.464	pCi/L	103	56 - 140	0.47	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.7		40 - 110
Y Carrier	80.0		40 - 110

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

**Lab Sample ID: 400-132731-A-10 DU**  
**Matrix: Water**  
**Analysis Batch: 293353**

**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	0.302	U	0.5404	U	0.370	5.00	0.557	pCi/L	0.35	

Chain of Custody Record

TestAmerica Pensacola  
 3955 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

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:  
 Plant Wansley - Gypsum Landfill  
 Site:  
 CCR & State Permit

Sampler:  
 T Payne TP, M. Thomas Jr  
 Lab File:  
 Whitmire, Cheyenne R  
 Carrier Tracking No(s):  
 Phone:  
 E-Mail:  
 cheyenne.whitmire@testamericainc.com

COOC No:  
 Page:  
 Job #:

Analysis Requested

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

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 - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCHA  
 W - ph 4-5  
 Z - other (specify)

Field Filtered Sample (Yes or No)	<input checked="" type="checkbox"/>
TDS - SM 2540C; Cl, F, SO4 - EPA 300	<input checked="" type="checkbox"/>
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	<input checked="" type="checkbox"/>
Radium 226 & 228 - SW-846 9315 & 9320	<input checked="" type="checkbox"/>
Metals State Permit (EPA 6020)	<input checked="" type="checkbox"/>
Cu, Ni, Sb, Ag, V, Zn	<input checked="" type="checkbox"/>

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)	TDS - SM 2540C; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Metals State Permit (EPA 6020)	Cu, Ni, Sb, Ag, V, Zn	Total Number of Containers	Special Instructions/Note:
GWA-29	1/17/17	1215	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWA-4	1/17/17	1435	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWA-28	1/17/17	1716	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	

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: 01/18/2017 16:45  
 Relinquished by: \_\_\_\_\_ Date: 1/18/17 1645  
 Relinquished by: \_\_\_\_\_ Date: 1/19/17 0848  
 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: 1/18/17 1948 Company: EGM  
 Received by: \_\_\_\_\_ Date: 1/19/17 0848 Company: JTA  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 3.7°C IR 6  
 Custody Seal Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: T Payne Th. M. Thomas Jr  
 Lab Piv: Whitmire, Cheyenne R  
 Carrier Tracking No(s):  
 Client Information  
 Client Contact: Joju Abraham  
 E-Mail: cheyenne.whitmire@testamericainc.com  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

**Analysis Requested**

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

Sample Identification	Sample Date	Sample Time (C=comp, G=grab)	Sample Type (W=water, S=solid, O=other)	Matrix (W=water, S=solid, O=other)	Field Filtered Sample (Yes or No)	TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-946 9315 & 9320	Metals State Permit (EPA 6020) Cu, Ni, Sb, Ag, V, Zn	Total Number of Containers	Special Instructions/Note:	Preservation Codes:	
												A - HCL	B - NaOH
GWC-26	1/19/17	1100	G	W	X	X	X	X	X	3		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 L - EDA Z - other (specify)	
GWA-2	1/19/17	1445	G	W	X	X	X	X	X	3			
GWA-1	1/19/17	1730	G	W	X	X	X	X	X	3			

**Possible Hazard Identification**  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

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: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: *[Signature]* Date: 01/20/2017 14:45 Company: ERM  
 Relinquished by: *[Signature]* Date: 1/20/17 1645 Company: 77A  
 Relinquished by: *[Signature]* Date: 1/21/17 0907 Company: 77A Pen  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: 2.9°C IR 17



**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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

**Sampler:** T Payne TP, M. Thomas MT  
**Lab P#:** Whitnire, Cheyenne R  
**Carrier Tracking No(s):**  
**Phone:**  
**E-Mail:** cheyenne.whitnire@testamericainc.com

**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=tissue, AS=air)	Field Filtered Sample (Yes or No)	Performance/MSD (Yes or No)	TDS - SM 2840C ; Cl, F, SO4 - EPA 300	Metals - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320	Metals State Permit (EPA 6020)	Cu, Ni, Sb, Ag, V, Zn	Total Number of containers	Special Instructions/Note:	Analysis Requested	
														Preservation Codes:	Preservation Codes:
GWC-27	1/20/17	1015	G	W	X	X	X	X	X	X	X	3		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:	
DUP-1	1/20/17	-	G	W	X	X	X	X	X	X	X	3			
FB-1	1/20/17	0920	G	W	X	X	X	X	X	X	X	3			
FERB-1	1/20/17	1210	G	W	X	X	X	X	X	X	X	3			

**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: 1/20/2017 16:45 Company: ERA  
**Relinquished by:** \_\_\_\_\_ Date/Time: 1/20/17 1645 Company: ERA  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
**Custody Seals Intact:**  Yes  No **Custody Seal No.:** \_\_\_\_\_  
**Cooler Temperature(s) °C and Other Remarks:** 2.9°C DR7



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-132829-2  
SDG Number: Gypsum Landfill

**Login Number: 132829**

**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	3.7°C IR-6, 2.9°C, 2.2°C IR-7, 1.3°C IR-2, 0.0°C, 2.6°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 Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-132829-2  
SDG: Gypsum Landfill

## 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

# 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: 400-132829-5

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

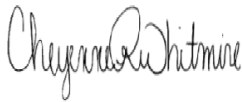
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/24/2017 12:20:37 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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**Job ID: 400-132829-5**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-132829-5**

**HPLC/IC**

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-7 (400-132829-24). Elevated reporting limits (RLs) are provided.

**Metals**

Method(s) 6020: The method blank for preparation batch 340230 and analytical batch 340403 contained Antimony and Vanadium 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 matrix spike (MS) recoveries for preparation batch 340230 and analytical batch 340403 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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Client Sample ID: GWC-25

## Lab Sample ID: 400-132829-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	26		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00061	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0043		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.033		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.012		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0024	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Vanadium	0.0077		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.0085	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-132829-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.094	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0075		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Vanadium	0.0059	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-31

## Lab Sample ID: 400-132829-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0051		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00064	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	8.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0027		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00042	J	0.0013	0.00035	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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Client Sample ID: GWC-31 (Continued)

## Lab Sample ID: 400-132829-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.020		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Silver	0.00087		0.00025	0.00011	mg/L	5		6020	Total Recoverable
Selenium	0.00035	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	0.0043	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33

## Lab Sample ID: 400-132829-18

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	5.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	50		1.0	0.70	mg/L	1		300.0	Total/NA
Vanadium	0.0052	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-34

## Lab Sample ID: 400-132829-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	1.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0043	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Vanadium	0.0055	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: DUP-2

## Lab Sample ID: 400-132829-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	1.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Vanadium	0.0019	J B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000076	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	20		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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Client Sample ID: GWC-32

## Lab Sample ID: 400-132829-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.9		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	9.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0010	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	13		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	0.018		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.00097	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Vanadium	0.0016	J B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.070		0.020	0.0065	mg/L	5		6020	Total Recoverable
Mercury	0.000073	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-132829-22

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	2.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Vanadium	0.0026	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-5

## Lab Sample ID: 400-132829-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.025		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
Cobalt	0.0075		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.0066		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Vanadium	0.0064	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-7

## Lab Sample ID: 400-132829-24

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Client Sample ID: GWC-7 (Continued)

## Lab Sample ID: 400-132829-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.23		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	85		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	61		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00091	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.011		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Lithium	0.013		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Vanadium	0.0057	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000088	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-2

## Lab Sample ID: 400-132829-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0048	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-6

## Lab Sample ID: 400-132829-26

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	16		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.0050		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Lithium	0.0037	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Vanadium	0.0064	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-8

## Lab Sample ID: 400-132829-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		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	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Copper	0.0021	J	0.0025	0.0021	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 Wansley

TestAmerica Job ID: 400-132829-5  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-8 (Continued)**

**Lab Sample ID: 400-132829-27**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0017	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	0.0034		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Lithium	0.010		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Thallium	0.00012	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Vanadium	0.0038	B	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132829-15	GWC-25	Water	01/24/17 08:38	01/27/17 09:07
400-132829-16	GWC-30	Water	01/24/17 11:47	01/27/17 09:07
400-132829-17	GWC-31	Water	01/25/17 10:35	01/27/17 09:07
400-132829-18	GWC-33	Water	01/25/17 14:20	01/27/17 09:07
400-132829-19	GWC-34	Water	01/25/17 14:25	01/27/17 09:07
400-132829-20	DUP-2	Water	01/25/17 00:00	01/27/17 09:07
400-132829-21	GWC-32	Water	01/26/17 09:20	01/28/17 08:49
400-132829-22	GWC-35	Water	01/26/17 10:20	01/28/17 08:49
400-132829-23	GWC-5	Water	01/26/17 11:47	01/28/17 08:49
400-132829-24	GWC-7	Water	01/26/17 12:15	01/28/17 08:49
400-132829-25	FB-2	Water	01/26/17 12:35	01/28/17 08:49
400-132829-26	GWC-6	Water	01/26/17 13:50	01/28/17 08:49
400-132829-27	GWC-8	Water	01/26/17 14:15	01/28/17 08:49

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 01/24/17 08:38**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-15**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.6</b>		1.0	0.89	mg/L			01/31/17 02:03	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 02:03	1
<b>Sulfate</b>	<b>26</b>		1.0	0.70	mg/L			01/31/17 02:03	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		01/30/17 09:15	01/31/17 15:00	5
<b>Arsenic</b>	<b>0.00061</b>	<b>J</b>	0.0013	0.00046	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Barium</b>	<b>0.040</b>		0.0025	0.00049	mg/L		01/30/17 09:15	01/31/17 15:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/31/17 15:00	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/31/17 15:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Calcium</b>	<b>14</b>		0.25	0.13	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Chromium</b>	<b>0.0043</b>		0.0025	0.0011	mg/L		01/30/17 09:15	01/31/17 15:00	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Cobalt</b>	<b>0.033</b>		0.0025	0.00040	mg/L		01/30/17 09:15	01/31/17 15:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Nickel</b>	<b>0.012</b>		0.0025	0.0018	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Lithium</b>	<b>0.0046</b>	<b>J</b>	0.0050	0.0032	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Molybdenum</b>	<b>0.0024</b>	<b>J</b>	0.015	0.00085	mg/L		01/30/17 09:15	01/31/17 15:00	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/31/17 15:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/31/17 15:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Vanadium</b>	<b>0.0077</b>		0.0025	0.0014	mg/L		01/30/17 09:15	01/31/17 15:00	5
<b>Zinc</b>	<b>0.0085</b>	<b>J</b>	0.020	0.0065	mg/L		01/30/17 09:15	01/31/17 15:00	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		01/30/17 10:32	01/31/17 14:08	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>96</b>		5.0	3.4	mg/L			01/28/17 14:45	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**  
**Date Collected: 01/24/17 11:47**  
**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-16**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			01/31/17 02:26	1
Fluoride	0.094	J	0.20	0.082	mg/L			01/31/17 02:26	1
Sulfate	1.3		1.0	0.70	mg/L			01/31/17 02:26	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		01/30/17 09:15	01/30/17 18:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 18:43	5
Barium	0.0075		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 18:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:43	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 18:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:43	5
Calcium	3.1		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 18:43	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 18:43	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 18:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 18:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 18:43	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 18:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 18:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 18:43	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 18:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 18:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 18:43	5
Vanadium	0.0059	B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 18:43	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 18:43	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		01/30/17 10:32	01/31/17 14:09	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		5.0	3.4	mg/L			01/28/17 14:45	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-31**  
**Date Collected: 01/25/17 10:35**  
**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-17**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			01/31/17 02:49	1
Fluoride	1.4		0.20	0.082	mg/L			01/31/17 02:49	1
Sulfate	13		1.0	0.70	mg/L			01/31/17 02:49	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		01/30/17 09:15	01/30/17 18:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 18:48	5
Barium	0.0051		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 18:48	5
Beryllium	0.00064	J	0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:48	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 18:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:48	5
Calcium	8.3		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 18:48	5
Chromium	0.0027		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 18:48	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 18:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 18:48	5
Lead	0.00042	J	0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 18:48	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 18:48	5
Lithium	0.020		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 18:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 18:48	5
Silver	0.00087		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 18:48	5
Selenium	0.00035	J	0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 18:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 18:48	5
Vanadium	0.0043	B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 18:48	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 18:48	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		01/30/17 10:32	01/31/17 14:10	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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**  
**Date Collected: 01/25/17 14:20**  
**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-18**  
**Matrix: Water**

### 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			01/31/17 12:42	1
Fluoride	5.6		0.20	0.082	mg/L			01/31/17 12:42	1
Sulfate	50		1.0	0.70	mg/L			01/31/17 12:42	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		01/30/17 09:15	01/30/17 18:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 18:53	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 18:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:53	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 18:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:53	5
Calcium	<0.13		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 18:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 18:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 18:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 18:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 18:53	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 18:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 18:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 18:53	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 18:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 18:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 18:53	5
Vanadium	0.0052	B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 18:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 18:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J	0.00020	0.000070	mg/L		01/30/17 10:32	01/31/17 14:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			01/28/17 15:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-132829-19**

**Date Collected: 01/25/17 14:25**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			01/31/17 13:05	1
Fluoride	0.16	J	0.20	0.082	mg/L			01/31/17 13:05	1
Sulfate	1.5		1.0	0.70	mg/L			01/31/17 13:05	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		01/30/17 09:15	01/30/17 18:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 18:57	5
Barium	0.011		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 18:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:57	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 18:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:57	5
Calcium	2.7		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 18:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 18:57	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 18:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 18:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 18:57	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 18:57	5
Lithium	0.0043	J	0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 18:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 18:57	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 18:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 18:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 18:57	5
Vanadium	0.0055	B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 18:57	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 18:57	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J	0.00020	0.000070	mg/L		01/30/17 10:32	01/31/17 14:30	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			01/28/17 15:40	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Date Collected: 01/25/17 00:00**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-20**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			01/31/17 03:57	1
Fluoride	0.16	J	0.20	0.082	mg/L			01/31/17 03:57	1
Sulfate	1.5		1.0	0.70	mg/L			01/31/17 03:57	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		01/30/17 09:15	01/30/17 19:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 19:38	5
Barium	0.011		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 19:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:38	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 19:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:38	5
Calcium	2.7		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 19:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 19:38	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 19:38	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 19:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 19:38	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 19:38	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 19:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 19:38	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 19:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 19:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 19:38	5
Vanadium	0.0019	J B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 19:38	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 19:38	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000076	J	0.00020	0.000070	mg/L		01/30/17 10:32	01/31/17 14:32	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20		5.0	3.4	mg/L			01/28/17 14:45	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Date Collected: 01/26/17 09:20**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-21**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			01/31/17 05:05	1
Fluoride	3.9		0.20	0.082	mg/L			01/31/17 05:05	1
Sulfate	9.2		1.0	0.70	mg/L			01/31/17 05:05	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		01/30/17 09:15	01/30/17 19:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 19:42	5
Barium	0.0030		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 19:42	5
Beryllium	0.0010	J	0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:42	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 19:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:42	5
Calcium	13		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 19:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 19:42	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 19:42	5
Cobalt	0.0013	J	0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 19:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 19:42	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 19:42	5
Lithium	0.018		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 19:42	5
Molybdenum	0.00097	J	0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 19:42	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 19:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 19:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 19:42	5
Vanadium	0.0016	J B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 19:42	5
Zinc	0.070		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 19:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000073	J	0.00020	0.000070	mg/L		01/30/17 10:32	01/31/17 14:33	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			01/31/17 11:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**

**Date Collected: 01/26/17 10:20**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-22**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.2</b>		1.0	0.89	mg/L			01/31/17 05:28	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 05:28	1
<b>Sulfate</b>	<b>2.7</b>		1.0	0.70	mg/L			01/31/17 05:28	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		01/30/17 09:15	01/30/17 19:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 19:47	5
<b>Barium</b>	<b>0.021</b>		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 19:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:47	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 19:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:47	5
<b>Calcium</b>	<b>2.2</b>		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 19:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 19:47	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 19:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 19:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 19:47	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 19:47	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 19:47	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 19:47	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 19:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 19:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 19:47	5
<b>Vanadium</b>	<b>0.0026</b>	<b>B</b>	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 19:47	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 19:47	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		01/30/17 10:32	01/31/17 14:34	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 11:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 01/26/17 11:47**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-23**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>9.2</b>		1.0	0.89	mg/L			01/31/17 05:51	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 05:51	1
<b>Sulfate</b>	<b>13</b>		1.0	0.70	mg/L			01/31/17 05:51	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		01/30/17 09:15	01/30/17 19:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 19:51	5
<b>Barium</b>	<b>0.025</b>		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 19:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:51	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 19:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:51	5
<b>Calcium</b>	<b>16</b>		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 19:51	5
<b>Chromium</b>	<b>0.0013</b>	<b>J</b>	0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 19:51	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 19:51	5
<b>Cobalt</b>	<b>0.0075</b>		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 19:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 19:51	5
<b>Nickel</b>	<b>0.0066</b>		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 19:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 19:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 19:51	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 19:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 19:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 19:51	5
<b>Vanadium</b>	<b>0.0064</b>	<b>B</b>	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 19:51	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 19:51	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		01/30/17 10:32	01/31/17 14:35	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>120</b>		5.0	3.4	mg/L			01/31/17 11:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Date Collected: 01/26/17 12:15**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-24**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		1.0	0.89	mg/L			01/31/17 06:37	1
Fluoride	0.23		0.20	0.082	mg/L			01/31/17 06:37	1
Sulfate	85		5.0	3.5	mg/L			01/31/17 13:28	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		01/30/17 09:15	01/30/17 19:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 19:56	5
Barium	0.097		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 19:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:56	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 19:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 19:56	5
Calcium	61		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 19:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 19:56	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 19:56	5
Cobalt	0.00091	J	0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 19:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 19:56	5
Nickel	0.011		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 19:56	5
Lithium	0.013		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 19:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 19:56	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 19:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 19:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 19:56	5
Vanadium	0.0057	B	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 19:56	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 19:56	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		01/30/17 10:32	01/31/17 14:37	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		5.0	3.4	mg/L			01/31/17 11:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 01/26/17 12:35**  
**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-25**  
**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			01/31/17 07:00	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 07:00	1
Sulfate	<0.70		1.0	0.70	mg/L			01/31/17 07:00	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		01/30/17 09:15	01/30/17 20:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 20:00	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 20:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 20:00	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 20:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 20:00	5
Calcium	<0.13		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 20:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 20:00	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 20:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 20:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 20:00	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 20:00	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 20:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 20:00	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 20:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 20:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 20:00	5
<b>Vanadium</b>	<b>0.0048</b>	<b>B</b>	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 20:00	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 20:00	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		01/30/17 10:32	01/31/17 14:38	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 11:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**

**Date Collected: 01/26/17 13:50**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-26**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.8</b>		1.0	0.89	mg/L			01/31/17 07:22	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 07:22	1
<b>Sulfate</b>	<b>16</b>		1.0	0.70	mg/L			01/31/17 07:22	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		01/30/17 09:15	01/30/17 20:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 20:05	5
<b>Barium</b>	<b>0.062</b>		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 20:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 20:05	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 20:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 20:05	5
<b>Calcium</b>	<b>13</b>		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 20:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 20:05	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 20:05	5
<b>Cobalt</b>	<b>0.011</b>		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 20:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 20:05	5
<b>Nickel</b>	<b>0.0050</b>		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 20:05	5
<b>Lithium</b>	<b>0.0037</b>	<b>J</b>	0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 20:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 20:05	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 20:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 20:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 20:05	5
<b>Vanadium</b>	<b>0.0064</b>	<b>B</b>	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 20:05	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 20:05	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		01/30/17 10:32	01/31/17 14:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>74</b>		5.0	3.4	mg/L			01/31/17 11:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 01/26/17 14:15**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-27**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.6</b>		1.0	0.89	mg/L			01/31/17 07:45	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 07:45	1
<b>Sulfate</b>	<b>49</b>		1.0	0.70	mg/L			01/31/17 07:45	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		01/30/17 09:15	01/30/17 20:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Barium</b>	<b>0.043</b>		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 20:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 20:09	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 20:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Calcium</b>	<b>29</b>		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 20:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Copper</b>	<b>0.0021</b>	<b>J</b>	0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Cobalt</b>	<b>0.0017</b>	<b>J</b>	0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 20:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Nickel</b>	<b>0.0034</b>		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Lithium</b>	<b>0.010</b>		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 20:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 20:09	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 20:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Thallium</b>	<b>0.00012</b>	<b>J</b>	0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 20:09	5
<b>Vanadium</b>	<b>0.0038</b>	<b>B</b>	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 20:09	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 20:09	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		01/30/17 10:32	01/31/17 14:40	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>130</b>		5.0	3.4	mg/L			01/31/17 14:32	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Qualifiers

### HPLC/IC

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

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 01/24/17 08:38**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-15**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340336	01/31/17 02:03	KH1	TAL PEN
Total Recoverable	Prep	3005A			340229	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340556	01/31/17 15:00	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

**Client Sample ID: GWC-30**

**Date Collected: 01/24/17 11:47**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-16**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340336	01/31/17 02:26	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 18:43	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

**Client Sample ID: GWC-31**

**Date Collected: 01/25/17 10:35**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-17**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340336	01/31/17 02:49	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 18:48	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340188	01/28/17 15:40	TET	TAL PEN

**Client Sample ID: GWC-33**

**Date Collected: 01/25/17 14:20**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-18**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340481	01/31/17 12:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 18:53	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:20	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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-132829-19**

**Date Collected: 01/25/17 14:25**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340481	01/31/17 13:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 18:57	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340188	01/28/17 15:40	TET	TAL PEN

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-132829-20**

**Date Collected: 01/25/17 00:00**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340336	01/31/17 03:57	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 19:38	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340187	01/28/17 14:45	TET	TAL PEN

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-132829-21**

**Date Collected: 01/26/17 09:20**

**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	340336	01/31/17 05:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 19:42	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340429	01/31/17 11:29	TET	TAL PEN

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-132829-22**

**Date Collected: 01/26/17 10:20**

**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	340336	01/31/17 05:28	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 19:47	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340429	01/31/17 11:29	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-132829-23**

**Date Collected: 01/26/17 11:47**

**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	340336	01/31/17 05:51	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 19:51	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340429	01/31/17 11:29	TET	TAL PEN

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-132829-24**

**Date Collected: 01/26/17 12:15**

**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	300.0		1	340336	01/31/17 06:37	KH1	TAL PEN
Total/NA	Analysis	300.0		5	340481	01/31/17 13:28	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 19:56	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340429	01/31/17 11:29	TET	TAL PEN

**Client Sample ID: FB-2**

**Lab Sample ID: 400-132829-25**

**Date Collected: 01/26/17 12:35**

**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	340336	01/31/17 07:00	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 20:00	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340429	01/31/17 11:29	TET	TAL PEN

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-132829-26**

**Date Collected: 01/26/17 13:50**

**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	340336	01/31/17 07:22	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 20:05	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:39	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**

**Date Collected: 01/26/17 13:50**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-26**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	340429	01/31/17 11:29	TET	TAL PEN

**Client Sample ID: GWC-8**

**Date Collected: 01/26/17 14:15**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-27**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	340336	01/31/17 07:45	KH1	TAL PEN
Total Recoverable	Prep	3005A			340230	01/30/17 09:15	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	340403	01/30/17 20:09	DRE	TAL PEN
Total/NA	Prep	7470A			340283	01/30/17 10:32	JAP	TAL PEN
Total/NA	Analysis	7470A		1	340497	01/31/17 14:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	340469	01/31/17 14:32	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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 340336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total/NA	Water	300.0	
400-132829-16	GWC-30	Total/NA	Water	300.0	
400-132829-17	GWC-31	Total/NA	Water	300.0	
400-132829-20	DUP-2	Total/NA	Water	300.0	
400-132829-21	GWC-32	Total/NA	Water	300.0	
400-132829-22	GWC-35	Total/NA	Water	300.0	
400-132829-23	GWC-5	Total/NA	Water	300.0	
400-132829-24	GWC-7	Total/NA	Water	300.0	
400-132829-25	FB-2	Total/NA	Water	300.0	
400-132829-26	GWC-6	Total/NA	Water	300.0	
400-132829-27	GWC-8	Total/NA	Water	300.0	
MB 400-340336/34	Method Blank	Total/NA	Water	300.0	
LCS 400-340336/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340336/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132731-B-9 MS	Matrix Spike	Total/NA	Water	300.0	
400-132731-B-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 340481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-18	GWC-33	Total/NA	Water	300.0	
400-132829-19	GWC-34	Total/NA	Water	300.0	
400-132829-24	GWC-7	Total/NA	Water	300.0	
MB 400-340481/4	Method Blank	Total/NA	Water	300.0	
LCS 400-340481/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-340481/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-132829-24 MS	GWC-7	Total/NA	Water	300.0	
400-132829-24 MSD	GWC-7	Total/NA	Water	300.0	

## Metals

### Prep Batch: 340229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total Recoverable	Water	3005A	
MB 400-340229/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-340229/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133164-D-7-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-133164-D-7-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 340230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-16	GWC-30	Total Recoverable	Water	3005A	
400-132829-17	GWC-31	Total Recoverable	Water	3005A	
400-132829-18	GWC-33	Total Recoverable	Water	3005A	
400-132829-19	GWC-34	Total Recoverable	Water	3005A	
400-132829-20	DUP-2	Total Recoverable	Water	3005A	
400-132829-21	GWC-32	Total Recoverable	Water	3005A	
400-132829-22	GWC-35	Total Recoverable	Water	3005A	
400-132829-23	GWC-5	Total Recoverable	Water	3005A	
400-132829-24	GWC-7	Total Recoverable	Water	3005A	
400-132829-25	FB-2	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 340230 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-26	GWC-6	Total Recoverable	Water	3005A	
400-132829-27	GWC-8	Total Recoverable	Water	3005A	
MB 400-340230/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-340230/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132829-19 MS	GWC-34	Total Recoverable	Water	3005A	
400-132829-19 MSD	GWC-34	Total Recoverable	Water	3005A	

### Prep Batch: 340283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total/NA	Water	7470A	
400-132829-16	GWC-30	Total/NA	Water	7470A	
400-132829-17	GWC-31	Total/NA	Water	7470A	
400-132829-18	GWC-33	Total/NA	Water	7470A	
400-132829-19	GWC-34	Total/NA	Water	7470A	
400-132829-20	DUP-2	Total/NA	Water	7470A	
400-132829-21	GWC-32	Total/NA	Water	7470A	
400-132829-22	GWC-35	Total/NA	Water	7470A	
400-132829-23	GWC-5	Total/NA	Water	7470A	
400-132829-24	GWC-7	Total/NA	Water	7470A	
400-132829-25	FB-2	Total/NA	Water	7470A	
400-132829-26	GWC-6	Total/NA	Water	7470A	
400-132829-27	GWC-8	Total/NA	Water	7470A	
MB 400-340283/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-340283/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-132828-B-13-C MS	Matrix Spike	Total/NA	Water	7470A	
400-132828-B-13-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 340403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-16	GWC-30	Total Recoverable	Water	6020	340230
400-132829-17	GWC-31	Total Recoverable	Water	6020	340230
400-132829-18	GWC-33	Total Recoverable	Water	6020	340230
400-132829-19	GWC-34	Total Recoverable	Water	6020	340230
400-132829-20	DUP-2	Total Recoverable	Water	6020	340230
400-132829-21	GWC-32	Total Recoverable	Water	6020	340230
400-132829-22	GWC-35	Total Recoverable	Water	6020	340230
400-132829-23	GWC-5	Total Recoverable	Water	6020	340230
400-132829-24	GWC-7	Total Recoverable	Water	6020	340230
400-132829-25	FB-2	Total Recoverable	Water	6020	340230
400-132829-26	GWC-6	Total Recoverable	Water	6020	340230
400-132829-27	GWC-8	Total Recoverable	Water	6020	340230
MB 400-340230/1-A ^5	Method Blank	Total Recoverable	Water	6020	340230
LCS 400-340230/2-A	Lab Control Sample	Total Recoverable	Water	6020	340230
400-132829-19 MS	GWC-34	Total Recoverable	Water	6020	340230
400-132829-19 MSD	GWC-34	Total Recoverable	Water	6020	340230

### Analysis Batch: 340497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total/NA	Water	7470A	340283
400-132829-16	GWC-30	Total/NA	Water	7470A	340283
400-132829-17	GWC-31	Total/NA	Water	7470A	340283

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 340497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-18	GWC-33	Total/NA	Water	7470A	340283
400-132829-19	GWC-34	Total/NA	Water	7470A	340283
400-132829-20	DUP-2	Total/NA	Water	7470A	340283
400-132829-21	GWC-32	Total/NA	Water	7470A	340283
400-132829-22	GWC-35	Total/NA	Water	7470A	340283
400-132829-23	GWC-5	Total/NA	Water	7470A	340283
400-132829-24	GWC-7	Total/NA	Water	7470A	340283
400-132829-25	FB-2	Total/NA	Water	7470A	340283
400-132829-26	GWC-6	Total/NA	Water	7470A	340283
400-132829-27	GWC-8	Total/NA	Water	7470A	340283
MB 400-340283/14-A	Method Blank	Total/NA	Water	7470A	340283
LCS 400-340283/15-A	Lab Control Sample	Total/NA	Water	7470A	340283
400-132828-B-13-C MS	Matrix Spike	Total/NA	Water	7470A	340283
400-132828-B-13-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	340283

### Analysis Batch: 340556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total Recoverable	Water	6020	340229
MB 400-340229/1-A ^5	Method Blank	Total Recoverable	Water	6020	340229
LCS 400-340229/2-A	Lab Control Sample	Total Recoverable	Water	6020	340229
400-133164-D-7-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	340229
400-133164-D-7-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	340229

## General Chemistry

### Analysis Batch: 340187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total/NA	Water	SM 2540C	
400-132829-16	GWC-30	Total/NA	Water	SM 2540C	
400-132829-20	DUP-2	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	
400-132829-B-14 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 340188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-17	GWC-31	Total/NA	Water	SM 2540C	
400-132829-18	GWC-33	Total/NA	Water	SM 2540C	
400-132829-19	GWC-34	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	

### Analysis Batch: 340429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-21	GWC-32	Total/NA	Water	SM 2540C	
400-132829-22	GWC-35	Total/NA	Water	SM 2540C	
400-132829-23	GWC-5	Total/NA	Water	SM 2540C	
400-132829-24	GWC-7	Total/NA	Water	SM 2540C	
400-132829-25	FB-2	Total/NA	Water	SM 2540C	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## General Chemistry (Continued)

### Analysis Batch: 340429 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-26	GWC-6	Total/NA	Water	SM 2540C	
MB 400-340429/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-340429/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132829-21 DU	GWC-32	Total/NA	Water	SM 2540C	

### Analysis Batch: 340469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-27	GWC-8	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	
400-133233-A-14 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-340336/34**  
**Matrix: Water**  
**Analysis Batch: 340336**

**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			01/30/17 22:37	1
Fluoride	<0.082		0.20	0.082	mg/L			01/30/17 22:37	1
Sulfate	<0.70		1.0	0.70	mg/L			01/30/17 22:37	1

**Lab Sample ID: LCS 400-340336/35**  
**Matrix: Water**  
**Analysis Batch: 340336**

**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	10.3		mg/L		103	90 - 110

**Lab Sample ID: LCSD 400-340336/36**  
**Matrix: Water**  
**Analysis Batch: 340336**

**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	9.98		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	0	15

**Lab Sample ID: 400-132731-B-9 MS**  
**Matrix: Water**  
**Analysis Batch: 340336**

**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	20		100	116		mg/L		97	80 - 120
Fluoride	<0.82		100	106		mg/L		106	80 - 120
Sulfate	280		100	376		mg/L		98	80 - 120

**Lab Sample ID: 400-132731-B-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 340336**

**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	20		100	116		mg/L		97	80 - 120	0	20
Fluoride	<0.82		100	106		mg/L		106	80 - 120	0	20
Sulfate	280		100	377		mg/L		98	80 - 120	0	20

**Lab Sample ID: MB 400-340481/4**  
**Matrix: Water**  
**Analysis Batch: 340481**

**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			01/31/17 11:33	1
Fluoride	<0.082		0.20	0.082	mg/L			01/31/17 11:33	1
Sulfate	<0.70		1.0	0.70	mg/L			01/31/17 11:33	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-340481/5**  
**Matrix: Water**  
**Analysis Batch: 340481**

**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	9.89		mg/L		99	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-340481/6**  
**Matrix: Water**  
**Analysis Batch: 340481**

**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	9.90		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	0	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

**Lab Sample ID: 400-132829-24 MS**  
**Matrix: Water**  
**Analysis Batch: 340481**

**Client Sample ID: GWC-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30		50.0	76.4		mg/L		93	80 - 120
Fluoride	<0.41		50.0	51.9		mg/L		104	80 - 120
Sulfate	85		50.0	133		mg/L		95	80 - 120

**Lab Sample ID: 400-132829-24 MSD**  
**Matrix: Water**  
**Analysis Batch: 340481**

**Client Sample ID: GWC-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	30		50.0	76.5		mg/L		93	80 - 120	0	20
Fluoride	<0.41		50.0	51.9		mg/L		104	80 - 120	0	20
Sulfate	85		50.0	133		mg/L		96	80 - 120	0	20

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

**Lab Sample ID: MB 400-340229/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 340556**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340229**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/30/17 09:15	01/31/17 12:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/31/17 12:31	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/30/17 09:15	01/31/17 12:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/31/17 12:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/31/17 12:31	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/31/17 12:31	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/31/17 12:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/31/17 12:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/31/17 12:31	5
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/31/17 12:31	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/31/17 12:31	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-340229/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 340556**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340229**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/31/17 12:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/31/17 12:31	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		01/30/17 09:15	01/31/17 12:31	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/31/17 12:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/31/17 12:31	5
Calcium	<0.13		0.25	0.13	mg/L		01/30/17 09:15	01/31/17 12:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/31/17 12:31	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/31/17 12:31	5

**Lab Sample ID: LCS 400-340229/2-A**  
**Matrix: Water**  
**Analysis Batch: 340556**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340229**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0524		mg/L		105	80 - 120
Arsenic	0.0500	0.0508		mg/L		102	80 - 120
Barium	0.0500	0.0511		mg/L		102	80 - 120
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Cadmium	0.0500	0.0515		mg/L		103	80 - 120
Chromium	0.0500	0.0499		mg/L		100	80 - 120
Copper	0.0500	0.0507		mg/L		101	80 - 120
Cobalt	0.0500	0.0476		mg/L		95	80 - 120
Lead	0.0500	0.0506		mg/L		101	80 - 120
Nickel	0.0500	0.0504		mg/L		101	80 - 120
Silver	0.0500	0.0520		mg/L		104	80 - 120
Selenium	0.0500	0.0498		mg/L		100	80 - 120
Thallium	0.0100	0.0102		mg/L		102	80 - 120
Vanadium	0.0500	0.0485		mg/L		97	80 - 120
Zinc	0.0500	0.0519		mg/L		104	80 - 120
Lithium	0.0500	0.0482		mg/L		96	80 - 120
Calcium	5.00	4.84		mg/L		97	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Boron	0.100	0.103		mg/L		103	80 - 120

**Lab Sample ID: 400-133164-D-7-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 340556**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340229**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0542		mg/L		108	75 - 125
Arsenic	<0.00046		0.0500	0.0513		mg/L		103	75 - 125
Barium	0.012		0.0500	0.0643		mg/L		104	75 - 125
Beryllium	<0.00034		0.0500	0.0525		mg/L		105	75 - 125
Cadmium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125
Chromium	<0.0011		0.0500	0.0503		mg/L		101	75 - 125
Copper	<0.0021		0.0500	0.0517		mg/L		103	75 - 125
Cobalt	<0.00040		0.0500	0.0522		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0506		mg/L		101	75 - 125
Nickel	0.0019	J	0.0500	0.0530		mg/L		102	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-133164-D-7-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 340556**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340229**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.00011		0.0500	0.0519		mg/L		104	75 - 125
Selenium	<0.00024		0.0500	0.0502		mg/L		100	75 - 125
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125
Vanadium	0.0054		0.0500	0.0514		mg/L		92	75 - 125
Zinc	<0.0065		0.0500	0.0531		mg/L		106	75 - 125
Lithium	0.0054		0.0500	0.0545		mg/L		98	75 - 125
Calcium	0.87		5.00	5.86		mg/L		100	75 - 125
Molybdenum	<0.00085		0.100	0.102		mg/L		102	75 - 125
Boron	0.14		0.100	0.260		mg/L		120	75 - 125

**Lab Sample ID: 400-133164-D-7-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 340556**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340229**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0535		mg/L		107	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0515		mg/L		103	75 - 125	0	20
Barium	0.012		0.0500	0.0639		mg/L		103	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0529		mg/L		106	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0516		mg/L		103	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0512		mg/L		102	75 - 125	2	20
Copper	<0.0021		0.0500	0.0523		mg/L		105	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0524		mg/L		105	75 - 125	0	20
Lead	<0.00035		0.0500	0.0508		mg/L		102	75 - 125	0	20
Nickel	0.0019	J	0.0500	0.0535		mg/L		103	75 - 125	1	20
Silver	<0.00011		0.0500	0.0508		mg/L		102	75 - 125	2	20
Selenium	<0.00024		0.0500	0.0500		mg/L		100	75 - 125	0	20
Thallium	<0.000085		0.0100	0.0102		mg/L		102	75 - 125	0	20
Vanadium	0.0054		0.0500	0.0529		mg/L		95	75 - 125	3	20
Zinc	<0.0065		0.0500	0.0542		mg/L		108	75 - 125	2	20
Lithium	0.0054		0.0500	0.0538		mg/L		97	75 - 125	1	20
Calcium	0.87		5.00	5.76		mg/L		98	75 - 125	2	20
Molybdenum	<0.00085		0.100	0.0999		mg/L		100	75 - 125	2	20
Boron	0.14		0.100	0.257		mg/L		117	75 - 125	1	20

**Lab Sample ID: MB 400-340230/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 340403**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340230**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		01/30/17 09:15	01/30/17 18:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		01/30/17 09:15	01/30/17 18:34	5
Barium	<0.00049		0.0025	0.00049	mg/L		01/30/17 09:15	01/30/17 18:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		01/30/17 09:15	01/30/17 18:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		01/30/17 09:15	01/30/17 18:34	5
Copper	<0.0021		0.0025	0.0021	mg/L		01/30/17 09:15	01/30/17 18:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		01/30/17 09:15	01/30/17 18:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		01/30/17 09:15	01/30/17 18:34	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-340230/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 340403**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340230**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.0018		0.0025	0.0018	mg/L		01/30/17 09:15	01/30/17 18:34	5
Silver	<0.00011		0.00025	0.00011	mg/L		01/30/17 09:15	01/30/17 18:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		01/30/17 09:15	01/30/17 18:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		01/30/17 09:15	01/30/17 18:34	5
Vanadium	0.00151	J	0.0025	0.0014	mg/L		01/30/17 09:15	01/30/17 18:34	5
Zinc	<0.0065		0.020	0.0065	mg/L		01/30/17 09:15	01/30/17 18:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		01/30/17 09:15	01/30/17 18:34	5
Calcium	<0.13		0.25	0.13	mg/L		01/30/17 09:15	01/30/17 18:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		01/30/17 09:15	01/30/17 18:34	5
Boron	<0.021		0.050	0.021	mg/L		01/30/17 09:15	01/30/17 18:34	5

**Lab Sample ID: LCS 400-340230/2-A**  
**Matrix: Water**  
**Analysis Batch: 340403**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340230**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0517		mg/L		103	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0495		mg/L		99	80 - 120
Beryllium	0.0500	0.0481		mg/L		96	80 - 120
Cadmium	0.0500	0.0519		mg/L		104	80 - 120
Chromium	0.0500	0.0502		mg/L		100	80 - 120
Copper	0.0500	0.0507		mg/L		101	80 - 120
Cobalt	0.0500	0.0453		mg/L		91	80 - 120
Lead	0.0500	0.0470		mg/L		94	80 - 120
Nickel	0.0500	0.0509		mg/L		102	80 - 120
Silver	0.0500	0.0473		mg/L		95	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120
Vanadium	0.0500	0.0500		mg/L		100	80 - 120
Zinc	0.0500	0.0502		mg/L		100	80 - 120
Lithium	0.0500	0.0484		mg/L		97	80 - 120
Calcium	5.00	4.85		mg/L		97	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Boron	0.100	0.0983		mg/L		98	80 - 120

**Lab Sample ID: 400-132829-19 MS**  
**Matrix: Water**  
**Analysis Batch: 340403**

**Client Sample ID: GWC-34**  
**Prep Type: Total Recoverable**  
**Prep Batch: 340230**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0530		mg/L		106	75 - 125
Antimony	<0.0010		0.0500	0.0530		mg/L		106	75 - 125
Arsenic	<0.00046		0.0500	0.0510		mg/L		102	75 - 125
Arsenic	<0.00046		0.0500	0.0510		mg/L		102	75 - 125
Barium	0.011		0.0500	0.0621		mg/L		103	75 - 125
Barium	0.011		0.0500	0.0621		mg/L		103	75 - 125
Beryllium	<0.00034		0.0500	0.0492		mg/L		98	75 - 125
Beryllium	<0.00034		0.0500	0.0492		mg/L		98	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-132829-19 MS**

**Matrix: Water**

**Analysis Batch: 340403**

**Client Sample ID: GWC-34**  
**Prep Type: Total Recoverable**

**Prep Batch: 340230**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	
	Result			Result					Limits	Limits
Cadmium	<0.00034		0.0500	0.0504		mg/L		101	75 - 125	
Cadmium	<0.00034		0.0500	0.0504		mg/L		101	75 - 125	
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125	
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125	
Copper	<0.0021		0.0500	0.0516		mg/L		103	75 - 125	
Copper	<0.0021		0.0500	0.0516		mg/L		103	75 - 125	
Cobalt	<0.00040		0.0500	0.0458		mg/L		92	75 - 125	
Cobalt	<0.00040		0.0500	0.0458		mg/L		92	75 - 125	
Lead	<0.00035		0.0500	0.0462		mg/L		92	75 - 125	
Lead	<0.00035		0.0500	0.0462		mg/L		92	75 - 125	
Nickel	<0.0018		0.0500	0.0504		mg/L		101	75 - 125	
Nickel	<0.0018		0.0500	0.0504		mg/L		101	75 - 125	
Silver	<0.00011		0.0500	0.0467		mg/L		93	75 - 125	
Silver	<0.00011		0.0500	0.0467		mg/L		93	75 - 125	
Selenium	<0.00024		0.0500	0.0500		mg/L		100	75 - 125	
Selenium	<0.00024		0.0500	0.0500		mg/L		100	75 - 125	
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125	
Vanadium	0.0055	B	0.0500	0.0536		mg/L		96	75 - 125	
Vanadium	0.0055	B	0.0500	0.0536		mg/L		96	75 - 125	
Zinc	<0.0065		0.0500	0.0485		mg/L		97	75 - 125	
Zinc	<0.0065		0.0500	0.0485		mg/L		97	75 - 125	
Lithium	0.0043	J	0.0500	0.0518		mg/L		95	75 - 125	
Lithium	0.0043	J	0.0500	0.0518		mg/L		95	75 - 125	
Calcium	2.7		5.00	7.63		mg/L		99	75 - 125	
Calcium	2.7		5.00	7.63		mg/L		99	75 - 125	
Molybdenum	<0.00085		0.100	0.101		mg/L		101	75 - 125	
Molybdenum	<0.00085		0.100	0.101		mg/L		101	75 - 125	
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125	
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125	

**Lab Sample ID: 400-132829-19 MSD**

**Matrix: Water**

**Analysis Batch: 340403**

**Client Sample ID: GWC-34**  
**Prep Type: Total Recoverable**

**Prep Batch: 340230**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0530		mg/L		106	75 - 125	0	20	
Arsenic	<0.00046		0.0500	0.0511		mg/L		102	75 - 125	0	20	
Barium	0.011		0.0500	0.0609		mg/L		100	75 - 125	2	20	
Beryllium	<0.00034		0.0500	0.0484		mg/L		97	75 - 125	2	20	
Cadmium	<0.00034		0.0500	0.0514		mg/L		103	75 - 125	2	20	
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125	0	20	
Copper	<0.0021		0.0500	0.0516		mg/L		103	75 - 125	0	20	
Cobalt	<0.00040		0.0500	0.0457		mg/L		91	75 - 125	0	20	
Lead	<0.00035		0.0500	0.0452		mg/L		90	75 - 125	2	20	
Nickel	<0.0018		0.0500	0.0507		mg/L		101	75 - 125	1	20	
Silver	<0.00011		0.0500	0.0471		mg/L		94	75 - 125	1	20	
Selenium	<0.00024		0.0500	0.0501		mg/L		100	75 - 125	0	20	

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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

Lab Sample ID: 400-132829-19 MSD  
Matrix: Water  
Analysis Batch: 340403

Client Sample ID: GWC-34  
Prep Type: Total Recoverable  
Prep Batch: 340230

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Thallium	<0.000085		0.0100	0.00997		mg/L		100	75 - 125	2	20
Vanadium	0.0055	B	0.0500	0.0529		mg/L		95	75 - 125	1	20
Zinc	<0.0065		0.0500	0.0464		mg/L		93	75 - 125	4	20
Lithium	0.0043	J	0.0500	0.0500		mg/L		91	75 - 125	3	20
Calcium	2.7		5.00	7.52		mg/L		97	75 - 125	1	20
Molybdenum	<0.00085		0.100	0.0998		mg/L		100	75 - 125	1	20
Boron	<0.021		0.100	0.104		mg/L		104	75 - 125	6	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-340283/14-A  
Matrix: Water  
Analysis Batch: 340497

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 340283

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		01/30/17 10:32	01/31/17 13:43	1

Lab Sample ID: LCS 400-340283/15-A  
Matrix: Water  
Analysis Batch: 340497

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 340283

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.00101	0.000965		mg/L		96	80 - 120

Lab Sample ID: 400-132828-B-13-C MS  
Matrix: Water  
Analysis Batch: 340497

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 340283

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Mercury	<0.000070		0.00201	0.00195		mg/L		97	80 - 120	

Lab Sample ID: 400-132828-B-13-D MSD  
Matrix: Water  
Analysis Batch: 340497

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 340283

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Mercury	<0.000070		0.00201	0.00197		mg/L		98	80 - 120	1	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	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			01/28/17 14:45	1

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

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

**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: 400-132829-B-14 DU**  
**Matrix: Water**  
**Analysis Batch: 340187**

**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	72		72.0		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

**Lab Sample ID: MB 400-340429/1**  
**Matrix: Water**  
**Analysis Batch: 340429**

**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 11:29	1

**Lab Sample ID: LCS 400-340429/2**  
**Matrix: Water**  
**Analysis Batch: 340429**

**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: 400-132829-21 DU**  
**Matrix: Water**  
**Analysis Batch: 340429**

**Client Sample ID: GWC-32**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	68		70.0		mg/L		3	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-5  
 SDG: Gypsum Landfill

**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: 400-133233-A-14 DU**  
**Matrix: Water**  
**Analysis Batch: 340469**

**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		322		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Chain of Custody Record

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**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:  
Plant Wansley - Gypsum Landfill

Site:  
CCR & State Permit

Sampler:  
M. Rogers HR

Lab PM:  
Whitmore, Cheyenne R

Phone:  
E-Mail:  
cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s):

Job #:

Analysis Requested

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Project #:

SSOW#:

Field Filled Sample (Yes or No)  
Perform MS/MSD (Yes or No)  
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470  
Radium 226 & 228 - SW-846 9315 & 9320  
Metals State Permit (EPA 6020)  
Cu, Ni, Sb, Ag, V, Zn

Field Filled Sample (Yes or No)  
Perform MS/MSD (Yes or No)

TDS - SM 2540C ; Cl<sub>2</sub>SO<sub>4</sub> - EPA 300

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470

Radium 226 & 228 - SW-846 9315 & 9320

Metals State Permit (EPA 6020)

Cu, Ni, Sb, Ag, V, Zn

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470

Radium 226 & 228 - SW-846 9315 & 9320

Metals State Permit (EPA 6020)

Cu, Ni, Sb, Ag, V, Zn

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470

Radium 226 & 228 - SW-846 9315 & 9320

Metals State Permit (EPA 6020)

Cu, Ni, Sb, Ag, V, Zn

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470

Radium 226 & 228 - SW-846 9315 & 9320

Metals State Permit (EPA 6020)

Sample Identification

Sample Date

Sample Time

Sample Type (C=comp, G=grab)

Matrix (W=water, S=solid, O=waste/oil, BT=issue, AL=air)

Preservation Code

Special Instructions/Note:

Total Number of Containers

Extra radiological sample collected for lab

QA/QC

Sample Identification

Sample Date

Sample Time

Sample Type (C=comp, G=grab)

Matrix (W=water, S=solid, O=waste/oil, BT=issue, AL=air)

Preservation Code

Special Instructions/Note:

Total Number of Containers

Extra radiological sample collected for lab

QA/QC

Sample Identification

Sample Date

Sample Time

Sample Type (C=comp, G=grab)

Matrix (W=water, S=solid, O=waste/oil, BT=issue, AL=air)

Preservation Code

Special Instructions/Note:

Total Number of Containers

Extra radiological sample collected for lab

QA/QC

Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological

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

Empty Kit Relinquished by:

Relinquished by: [Signature] Date: 1/26/2017

Relinquished by: [Signature] Date: 1/26/17

Relinquished by: [Signature] Date: 1/26/17

Custody Seals Intact: [Signature] Custody Seal No.:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Method of Shipment:

Received by: [Signature] Date: 1/26/17

Received by: [Signature] Date: 1/26/17

Received by: [Signature] Date: 1/26/17

Cooler Temperature(s) °C and Other Remarks: 1.3°C



**Chain of Custody Record**

3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**

Client Contact:  
 Joju Abraham

Company:  
 Southern Company

Address:  
 241 Ralph McGill Blvd SE B10185

City:  
 Atlanta

State, Zip:  
 GA, 30308

Phone:  
 404-506-7299

Email:  
 JAbraham@southernco.com

Project Name:  
 Plant Wansley - Gypsum Landfill

Site:  
 CCR & State Permit

Carrier Tracking No(s):

Lab PM: Whitmire, Cheyenne R

E-Mail: cheyenne.whitmire@testamericainc.com

COC No:

Page:

Job #:

**Analysis Requested**

Field Filtered Sample (Yes or No)	<input checked="" type="checkbox"/>
Permit (MS/MSD (Yes or No))	<input checked="" type="checkbox"/>
TDS - SM 2540C : Cl, F, SO4 - EPA 300	<input checked="" type="checkbox"/>
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	<input checked="" type="checkbox"/>
Radium 226 & 228 - SW-846 9315 & 9320	<input checked="" type="checkbox"/>
Metals State Permit (EPA 6020)	<input checked="" type="checkbox"/>
Cu, Ni, Sb, Ag, V, Zn	<input checked="" type="checkbox"/>


Sample ID	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (W-water, S-solid, O-owast/well)	Preservation Code	Field Filtered Sample (Yes or No)	Permit (MS/MSD (Yes or No))	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Metals State Permit (EPA 6020)	Cu, Ni, Sb, Ag, V, Zn	Total Number of Containers	Special Instructions/Note:
GWC-31	1/25/17	1035	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	Well went dry during sampling. Radiological container only 50% full
GWC-33	1/25/17	1420	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-34	1/25/17	1425	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
DUP-2	1/25/17	-	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	

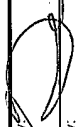
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:														
Special Instructions/Note: Well went dry during sampling. Radiological container only 50% full														

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological


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

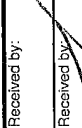
Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by:  Date/Time: 1/26/2017 09:50 Company: GRM

Relinquished by:  Date/Time: 1/26/17 1600 Company: TA

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Received by:  Date/Time: 1/26/17 950 Company: TA

Received by:  Date/Time: 1/27/17 0907 Company: TA

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Method of Shipment: \_\_\_\_\_

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:



**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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

**Sampler:** J.Morrison #1, M. Rogers #R  
**Lab PM:** Whitmire, Cheyenne R  
**Carrier Tracking No(s):**  
**Job #:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Blood, T=tissue, A=air)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Performance/MSD (Yes or No)		
GWC-32	1/26/17	0920	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-35	1/26/17	1020	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Extra radiological container collected for lab QA/QC
GWC-5	1/26/17	1147	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-7	1/26/17	1215	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
FB-2	1/26/17	1235	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-6	1/26/17	1350	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-8	1/26/17	1415	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: *Myles Rogers* Date/Time: 1-27-17 15:15 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 1/27/17 16:02 Company: STA  
 Relinquished by: \_\_\_\_\_ Date/Time: 1-28-17 08:49 Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: 0.0, 26.0



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-132829-5  
SDG Number: Gypsum Landfill

**Login Number: 132829**

**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	3.7°C IR-6, 2.9°C, 2.2°C IR-7, 1.3°C IR-2, 0.0°C, 2.6°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 Wansley

TestAmerica Job ID: 400-132829-5  
SDG: Gypsum Landfill

## 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: 400-132829-6

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

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### LINKS

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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 Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Job ID: 400-132829-6**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-132829-6

#### RAD

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-291053: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-25 (400-132829-15), GWC-30 (400-132829-16), GWC-31 (400-132829-17), GWC-33 (400-132829-18), GWC-34 (400-132829-19), DUP-2 (400-132829-20), GWC-32 (400-132829-21), GWC-35 (400-132829-22), GWC-5 (400-132829-23), GWC-7 (400-132829-24), FB-2 (400-132829-25), GWC-6 (400-132829-26) and GWC-8 (400-132829-27). 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 160-291046: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: GWC-25 (400-132829-15), GWC-30 (400-132829-16), GWC-31 (400-132829-17), GWC-33 (400-132829-18), GWC-34 (400-132829-19), DUP-2 (400-132829-20), GWC-32 (400-132829-21), GWC-35 (400-132829-22), GWC-5 (400-132829-23), GWC-7 (400-132829-24), FB-2 (400-132829-25), GWC-6 (400-132829-26) and GWC-8 (400-132829-27). 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 Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132829-15	GWC-25	Water	01/24/17 08:38	01/27/17 09:07
400-132829-16	GWC-30	Water	01/24/17 11:47	01/27/17 09:07
400-132829-17	GWC-31	Water	01/25/17 10:35	01/27/17 09:07
400-132829-18	GWC-33	Water	01/25/17 14:20	01/27/17 09:07
400-132829-19	GWC-34	Water	01/25/17 14:25	01/27/17 09:07
400-132829-20	DUP-2	Water	01/25/17 00:00	01/27/17 09:07
400-132829-21	GWC-32	Water	01/26/17 09:20	01/28/17 08:49
400-132829-22	GWC-35	Water	01/26/17 10:20	01/28/17 08:49
400-132829-23	GWC-5	Water	01/26/17 11:47	01/28/17 08:49
400-132829-24	GWC-7	Water	01/26/17 12:15	01/28/17 08:49
400-132829-25	FB-2	Water	01/26/17 12:35	01/28/17 08:49
400-132829-26	GWC-6	Water	01/26/17 13:50	01/28/17 08:49
400-132829-27	GWC-8	Water	01/26/17 14:15	01/28/17 08:49

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-132829-15**

**Date Collected: 01/24/17 08:38**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00360	U	0.0777	0.0777	1.00	0.153	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/06/17 11:19	02/28/17 06:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.135	U	0.213	0.213	1.00	0.357	pCi/L	02/06/17 12:02	02/24/17 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/06/17 12:02	02/24/17 14:40	1
Y Carrier	94.2		40 - 110					02/06/17 12:02	02/24/17 14:40	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	0.139	U	0.226	0.227	5.00	0.357	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-132829-16**

**Date Collected: 01/24/17 11:47**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0664	U	0.0839	0.0841	1.00	0.139	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					02/06/17 11:19	02/28/17 06:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.334	U	0.225	0.227	1.00	0.347	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	84.9		40 - 110					02/06/17 12:02	02/24/17 14:41	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	0.400		0.240	0.242	5.00	0.347	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-31**

**Date Collected: 01/25/17 10:35**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-17**

**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	-0.00559	U	0.0732	0.0732	1.00	0.151	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/06/17 11:19	02/28/17 06:39	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	0.221	0.222	1.00	0.356	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	86.0		40 - 110					02/06/17 12:02	02/24/17 14:41	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	0.230	U	0.232	0.233	5.00	0.356	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 01/25/17 14:20**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-18**

**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	0.566		0.164	0.172	1.00	0.140	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/06/17 11:19	02/28/17 06:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.374		0.228	0.231	1.00	0.347	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	89.0		40 - 110					02/06/17 12:02	02/24/17 14:41	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	0.940		0.281	0.288	5.00	0.347	pCi/L		02/28/17 10:57	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-132829-19**

Date Collected: 01/25/17 14:25

Matrix: Water

Date Received: 01/27/17 09:07

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.165		0.103	0.104	1.00	0.137	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/06/17 11:19	02/28/17 06:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.215	U	0.202	0.203	1.00	0.326	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	93.5		40 - 110					02/06/17 12:02	02/24/17 14:41	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		0.227	0.228	5.00	0.326	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-132829-20**

**Date Collected: 01/25/17 00:00**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0463	U	0.0842	0.0843	1.00	0.149	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/06/17 11:19	02/28/17 06:39	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	0.233	0.233	1.00	0.380	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	86.0		40 - 110					02/06/17 12:02	02/24/17 14:41	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	0.264	U	0.247	0.248	5.00	0.380	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-132829-21**

Date Collected: 01/26/17 09:20

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	0.499		0.156	0.163	1.00	0.146	pCi/L	02/06/17 11:19	02/28/17 06:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/06/17 11:19	02/28/17 06:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.697		0.306	0.313	1.00	0.448	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	86.0		40 - 110					02/06/17 12:02	02/24/17 14:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.20		0.344	0.352	5.00	0.448	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-132829-22**

**Date Collected: 01/26/17 10:20**

**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	0.0698	U	0.0800	0.0802	1.00	0.129	pCi/L	02/06/17 11:19	02/28/17 06:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/06/17 11:19	02/28/17 06:40	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	0.233	0.233	1.00	0.384	pCi/L	02/06/17 12:02	02/24/17 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/06/17 12:02	02/24/17 14:41	1
Y Carrier	86.7		40 - 110					02/06/17 12:02	02/24/17 14:41	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	0.265	U	0.246	0.247	5.00	0.384	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 01/26/17 11:47**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-23**

**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	-0.00291	U	0.0577	0.0577	1.00	0.126	pCi/L	02/06/17 11:19	02/28/17 06:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/06/17 11:19	02/28/17 06:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00815	U	0.214	0.214	1.00	0.384	pCi/L	02/06/17 12:02	02/24/17 14:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/06/17 12:02	02/24/17 14:42	1
Y Carrier	90.1		40 - 110					02/06/17 12:02	02/24/17 14:42	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	-0.0111	U	0.222	0.222	5.00	0.384	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Date Collected: 01/26/17 12:15**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-24**

**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	0.0368	U	0.0799	0.0800	1.00	0.145	pCi/L	02/06/17 11:19	02/28/17 06:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/06/17 11:19	02/28/17 06:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.345	U	0.274	0.276	1.00	0.436	pCi/L	02/06/17 12:02	02/24/17 14:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/06/17 12:02	02/24/17 14:42	1
Y Carrier	83.4		40 - 110					02/06/17 12:02	02/24/17 14:42	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	0.382	U	0.286	0.287	5.00	0.436	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 01/26/17 12:35**  
**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-25**  
**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	0.0576	U	0.0752	0.0753	1.00	0.125	pCi/L	02/06/17 11:19	02/28/17 06:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/06/17 11:19	02/28/17 06:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.155	U	0.222	0.223	1.00	0.372	pCi/L	02/06/17 12:02	02/24/17 14:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					02/06/17 12:02	02/24/17 14:42	1
Y Carrier	86.7		40 - 110					02/06/17 12:02	02/24/17 14:42	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	0.213	U	0.235	0.235	5.00	0.372	pCi/L		02/28/17 10:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**

**Date Collected: 01/26/17 13:50**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-26**

**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	0.153		0.0986	0.0995	1.00	0.129	pCi/L	02/06/17 11:19	02/28/17 06:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/06/17 11:19	02/28/17 06:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00579	U	0.199	0.199	1.00	0.356	pCi/L	02/06/17 12:02	02/24/17 14:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					02/06/17 12:02	02/24/17 14:42	1
Y Carrier	95.3		40 - 110					02/06/17 12:02	02/24/17 14:42	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	0.159	U	0.222	0.223	5.00	0.356	pCi/L		02/28/17 10:57	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 01/26/17 14:15**

**Date Received: 01/28/17 08:49**

**Lab Sample ID: 400-132829-27**

**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	0.0849	U	0.0919	0.0922	1.00	0.147	pCi/L	02/06/17 11:19	02/28/17 06:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					02/06/17 11:19	02/28/17 06:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.161	U	0.220	0.221	1.00	0.368	pCi/L	02/06/17 12:02	02/24/17 14:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					02/06/17 12:02	02/24/17 14:42	1
Y Carrier	90.5		40 - 110					02/06/17 12:02	02/24/17 14:42	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	0.246	U	0.239	0.239	5.00	0.368	pCi/L		02/28/17 10:57	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 01/24/17 08:38**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-15**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-30**

**Date Collected: 01/24/17 11:47**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-16**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-31**

**Date Collected: 01/25/17 10:35**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-17**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-33**

**Date Collected: 01/25/17 14:20**

**Date Received: 01/27/17 09:07**

**Lab Sample ID: 400-132829-18**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-132829-19**

**Date Collected: 01/25/17 14:25**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-132829-20**

**Date Collected: 01/25/17 00:00**

**Matrix: Water**

**Date Received: 01/27/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-132829-21**

**Date Collected: 01/26/17 09:20**

**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			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-132829-22**

**Date Collected: 01/26/17 10:20**

**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			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-132829-23**

**Date Collected: 01/26/17 11:47**

**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			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-132829-24**

**Date Collected: 01/26/17 12:15**

**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	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: FB-2**

**Lab Sample ID: 400-132829-25**

**Date Collected: 01/26/17 12:35**

**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			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-132829-26**

**Date Collected: 01/26/17 13:50**

**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			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-132829-27**

**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	Prep	PrecSep-21			291046	02/06/17 11:19	PJM	TAL SL
Total/NA	Analysis	9315		1	294971	02/28/17 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			291053	02/06/17 12:02	PJM	TAL SL
Total/NA	Analysis	9320		1	294372	02/24/17 14:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	295089	02/28/17 10:57	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 Wansley

TestAmerica Job ID: 400-132829-6  
 SDG: Gypsum Landfill

## Rad

### Prep Batch: 291046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total/NA	Water	PrecSep-21	
400-132829-16	GWC-30	Total/NA	Water	PrecSep-21	
400-132829-17	GWC-31	Total/NA	Water	PrecSep-21	
400-132829-18	GWC-33	Total/NA	Water	PrecSep-21	
400-132829-19	GWC-34	Total/NA	Water	PrecSep-21	
400-132829-20	DUP-2	Total/NA	Water	PrecSep-21	
400-132829-21	GWC-32	Total/NA	Water	PrecSep-21	
400-132829-22	GWC-35	Total/NA	Water	PrecSep-21	
400-132829-23	GWC-5	Total/NA	Water	PrecSep-21	
400-132829-24	GWC-7	Total/NA	Water	PrecSep-21	
400-132829-25	FB-2	Total/NA	Water	PrecSep-21	
400-132829-26	GWC-6	Total/NA	Water	PrecSep-21	
400-132829-27	GWC-8	Total/NA	Water	PrecSep-21	
MB 160-291046/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-291046/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-291046/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 291053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132829-15	GWC-25	Total/NA	Water	PrecSep_0	
400-132829-16	GWC-30	Total/NA	Water	PrecSep_0	
400-132829-17	GWC-31	Total/NA	Water	PrecSep_0	
400-132829-18	GWC-33	Total/NA	Water	PrecSep_0	
400-132829-19	GWC-34	Total/NA	Water	PrecSep_0	
400-132829-20	DUP-2	Total/NA	Water	PrecSep_0	
400-132829-21	GWC-32	Total/NA	Water	PrecSep_0	
400-132829-22	GWC-35	Total/NA	Water	PrecSep_0	
400-132829-23	GWC-5	Total/NA	Water	PrecSep_0	
400-132829-24	GWC-7	Total/NA	Water	PrecSep_0	
400-132829-25	FB-2	Total/NA	Water	PrecSep_0	
400-132829-26	GWC-6	Total/NA	Water	PrecSep_0	
400-132829-27	GWC-8	Total/NA	Water	PrecSep_0	
MB 160-291053/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-291053/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-291053/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-291046/1-A**  
**Matrix: Water**  
**Analysis Batch: 294970**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 291046**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1163	U	0.0977	0.0983	1.00	0.143	pCi/L	02/06/17 11:19	02/28/17 06:37	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					02/06/17 11:19	02/28/17 06:37	1

**Lab Sample ID: LCS 160-291046/2-A**  
**Matrix: Water**  
**Analysis Batch: 294970**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 291046**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	6.01	5.835		0.705	1.00	0.134	pCi/L	97	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	104		40 - 110						

**Lab Sample ID: LCSD 160-291046/3-A**  
**Matrix: Water**  
**Analysis Batch: 294970**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 291046**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	6.01	5.680		0.690	1.00	0.117	pCi/L	95	68 - 137	0.11	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	109		40 - 110								

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

**Lab Sample ID: MB 160-291053/1-A**  
**Matrix: Water**  
**Analysis Batch: 294372**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 291053**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1305	U	0.229	0.229	1.00	0.388	pCi/L	02/06/17 12:02	02/24/17 14:40	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					02/06/17 12:02	02/24/17 14:40	1
Y Carrier	89.7		40 - 110					02/06/17 12:02	02/24/17 14:40	1



# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
 SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-291053/2-A**  
**Matrix: Water**  
**Analysis Batch: 294372**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 291053**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	13.09		1.39	1.00	0.286	pCi/L	95	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	93.5		40 - 110

**Lab Sample ID: LCSD 160-291053/3-A**  
**Matrix: Water**  
**Analysis Batch: 294372**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 291053**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
Radium-228	13.8	12.41		1.32	1.00	0.266	pCi/L	90	56 - 140	0.25	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	109		40 - 110
Y Carrier	94.6		40 - 110

# Chain of Custody Record

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**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: Plant Wansley - Gypsum Landfill  
Site: CCR & State Permit

Carrier Tracking No(s):  
Page:  
Job #:

Lab PM: Whitmire, Cheyenne R  
E-Mail: cheyenne.whitmire@testamericainc.com

**Analysis Requested**  
400-132829 COC

Due Date Requested:  
TAT Requested (days):  
PO #:  
WO #:  
Project #:  
SSOW #:

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=waste/oil, BT=issue, AL=air)	Field Filled Sample (Yes or No)		Perform MS/MSD (Yes or No)		TDS - SM 2540C ; Cl <sub>2</sub> SO <sub>4</sub> - EPA 300		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9315 & 9320		Metals State Permit (EPA 6020)		Cu, Ni, Sb, Ag, V, Zn		Total Number of Containers	Special Instructions/Note:
					Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
GWC-25	1/24/17	0838	G	W					X		X	X	X	X	X	X	X	X	3	
GWC-30	1/24/17	1147	G	W					X		X	X	X	X	X	X	X	X	4	Extra radiological sample collected for lab QA/QC

**Possible Hazard Identification**  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:  
 Relinquished by: [Signature] Date: 1/26/2017 Company: ERM  
 Relinquished by: [Signature] Date: 1/26/17 1600 Company: ERM  
 Relinquished by: [Signature] Date: 1/26/17 0907 Company: TFA-160

Custody Seals Intact:  Custody Seal No.:  
 Cooler Temperature(s) °C and Other Remarks: 1.3°C DR 2

# Chain of Custody Record

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**

Client Contact:  
Joju Abraham

Company:  
Southern Company

Address:  
241 Ralph McGill Blvd SE B10185

City:  
Atlanta

State, Zip:  
GA, 30308

Phone:  
404-506-7299

Email:  
JAbraham@southernco.com

Project Name:  
Plant Wansley - Gypsum Landfill

Site:  
CCR & State Permit

Carrier Tracking No(s):

Lab PM:  
Whitmore, Cheyenne R

E-Mail:  
cheyenne.whitmore@testamericainc.com

COC No:

Page:

Job #:

**Analysis Requested**

Due Date Requested:  
TAT Requested (days):  
PO #:  
WO #:  
Project #:  
SSOW#:

Field Filtered Sample (Yes or No)	Performance MSD (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Metals State Permit (EPA 6020)	Cu, Ni, Sb, Ag, V, Zn
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, T=tissue, A=air)	Preservation Code	Total Number of Containers	Special Instructions/Note:
GWC-31	1/25/17	1035	G	W	W	3	Well went dry during sampling. Radiological container only 50% full
GWC-33	1/25/17	1420	G	W	W	3	
GWC-34	1/25/17	1425	G	W	W	3	
DUP-2	1/25/17	-	G	W	W	3	

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: 1/26/2017 09:50 Company: GRM

Relinquished by: Date/Time: 1/26/17 1600 Company: TA

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

Custody Seal No.: \_\_\_\_\_



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: J.Morrison #1, M. Rogers #R  
 Lab PM: Whitmire, Cheyenne R  
 Carrier Tracking No(s):  
 Client Contact: Joju Abraham  
 Phone: cheyenne.whitmire@testamericainc.com  
 E-Mail: cheyenne.whitmire@testamericainc.com  
 Job #:

Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State: GA, Zip: 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Blood, AS=air)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Performance/MSD (Yes or No)		
GWC-32	1/26/17	0920	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-35	1/26/17	1020	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Extra radiological container collected for lab QA/QC
GWC-5	1/26/17	1147	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-7	1/26/17	1215	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
FB-2	1/26/17	1235	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-6	1/26/17	1350	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-8	1/26/17	1415	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	

**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: *Myles Rogers* Date/Time: 1-27-17 15:15 Company: \_\_\_\_\_  
 Relinquished by: *[Signature]* Date/Time: 1/27/17 16:02 Company: STA  
 Relinquished by: *[Signature]* Date/Time: 1-28-17 08:49 Company: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: 0.0, 26.0



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-132829-6  
SDG Number: Gypsum Landfill

**Login Number: 132829**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	3.7°C IR-6, 2.9°C, 2.2°C IR-7, 1.3°C IR-2, 0.0°C, 2.6°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 Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

## 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.

# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-132829-6  
SDG: Gypsum Landfill

## 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

# 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: 400-133486-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

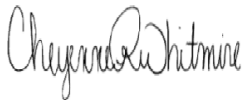
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

2/24/2017 12:05:00 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Job ID: 400-133486-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-133486-1

#### HPLC/IC

Method(s) 300.0: The laboratory control sample (LCS) for analytical batch 341315 recovered outside control limits for the following analytes: Fluoride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

#### Metals

Method(s) 6020: The post digestion spike % recovery for Calcium associated with batch 341398 was outside of control limits.

Method(s) 7470A: The method blank for prep batch 341212 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.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-9

## Lab Sample ID: 400-133486-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	44		1.0	0.70	mg/L	1		300.0	Total/NA
Copper	0.0021	J	0.0025	0.0021	mg/L	5		6020	Total Recoverable
Arsenic	0.0011	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Nickel	0.055		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.10		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.11		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.15		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0064		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0041	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00053	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000086	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-2

## Lab Sample ID: 400-133486-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000078	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWC-12

## Lab Sample ID: 400-133486-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.19	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	23		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	40		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0040	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00013	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: GWC-11

## Lab Sample ID: 400-133486-4

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
Sulfate	3.7		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.0010	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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-11 (Continued)

## Lab Sample ID: 400-133486-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.19		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0029		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	8.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.012		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00033	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000071	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-133486-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0015	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000096	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-133486-6

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	0.086	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.9		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0090		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0016	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Boron	0.023	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	9.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0061		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00013	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-133486-7

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
Fluoride	1.3		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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-10 (Continued)

## Lab Sample ID: 400-133486-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	40		1.0	0.70	mg/L	1		300.0	Total/NA
Nickel	0.0043		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0032		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	26		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0090		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0079		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-16

## Lab Sample ID: 400-133486-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0067		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0024	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Mercury	0.00015	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-133486-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	46		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	8.2		1.0	0.70	mg/L	1		300.0	Total/NA
Nickel	0.013		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.088		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0020	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Boron	0.29		0.050	0.021	mg/L	5		6020	Total Recoverable
Zinc	0.0084	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.20		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.00041	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.000092	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	150		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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-17

## Lab Sample ID: 400-133486-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0044		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	8.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00090	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0053		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00020	B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-133486-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0036		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0035	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000098	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-3

## Lab Sample ID: 400-133486-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.0030		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Mercury	0.000093	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: DUP-3

## Lab Sample ID: 400-133486-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0062		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	7.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0025		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0035	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	74		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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-21

## Lab Sample ID: 400-133486-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total
Vanadium	0.0028		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00040	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.012		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-3

## Lab Sample ID: 400-133486-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Mercury	0.00012	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-133486-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	8.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.085		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0015	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0054		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-20

## Lab Sample ID: 400-133486-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.82	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0031		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	8.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000086	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	100		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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-24

## Lab Sample ID: 400-133486-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0	0.89	mg/L	1		300.0	Total/NA
Nickel	0.0025		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0015	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.0094	J	0.020	0.0065	mg/L	5		6020	Total Recoverable
Cadmium	0.0021	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0011	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00097	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0043	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-23

## Lab Sample ID: 400-133486-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0016	J	0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-133486-20

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
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Vanadium	0.0082		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Calcium	11		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	0.0042	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133486-1	GWC-9	Water	01/31/17 11:00	02/03/17 12:52
400-133486-2	FERB-2	Water	01/31/17 11:35	02/03/17 12:52
400-133486-3	GWC-12	Water	01/31/17 11:45	02/03/17 12:52
400-133486-4	GWC-11	Water	01/31/17 14:30	02/03/17 12:52
400-133486-5	GWC-13	Water	01/31/17 14:30	02/03/17 12:52
400-133486-6	GWC-15	Water	02/01/17 09:55	02/03/17 12:52
400-133486-7	GWC-10	Water	02/01/17 10:35	02/03/17 12:52
400-133486-8	GWC-16	Water	02/01/17 11:45	02/03/17 12:52
400-133486-9	GWC-14	Water	02/01/17 12:45	02/03/17 12:52
400-133486-10	GWC-17	Water	02/01/17 13:45	02/03/17 12:52
400-133486-11	GWC-18	Water	02/01/17 14:05	02/03/17 12:52
400-133486-12	FERB-3	Water	02/01/17 14:35	02/03/17 12:52
400-133486-13	DUP-3	Water	02/01/17 00:00	02/03/17 12:52
400-133486-14	GWC-21	Water	02/02/17 09:40	02/04/17 08:24
400-133486-15	FB-3	Water	02/02/17 09:45	02/04/17 08:24
400-133486-16	GWC-19	Water	02/02/17 10:20	02/04/17 08:24
400-133486-17	GWC-20	Water	02/02/17 13:35	02/04/17 08:24
400-133486-18	GWC-24	Water	02/03/17 09:10	02/04/17 08:24
400-133486-19	GWC-23	Water	02/03/17 10:15	02/04/17 08:24
400-133486-20	GWC-22	Water	02/03/17 10:50	02/04/17 08:24

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 01/31/17 11:00**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>17</b>		1.0	0.89	mg/L			02/06/17 13:52	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 13:52	1
<b>Sulfate</b>	<b>44</b>		1.0	0.70	mg/L			02/06/17 13:52	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		02/07/17 09:25	02/07/17 14:05	5
<b>Copper</b>	<b>0.0021</b>	<b>J</b>	0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Arsenic</b>	<b>0.0011</b>	<b>J</b>	0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Nickel</b>	<b>0.055</b>		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Barium</b>	<b>0.10</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 14:05	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 14:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:05	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Boron</b>	<b>0.11</b>		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 14:05	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 14:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Calcium</b>	<b>18</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Chromium</b>	<b>0.0015</b>	<b>J</b>	0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Cobalt</b>	<b>0.15</b>		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 14:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Lithium</b>	<b>0.0064</b>		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Molybdenum</b>	<b>0.0041</b>	<b>J</b>	0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 14:05	5
<b>Selenium</b>	<b>0.00053</b>	<b>J</b>	0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 14:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 14:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000086</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:28	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>160</b>		5.0	3.4	mg/L			02/05/17 09:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**

**Lab Sample ID: 400-133486-2**

**Date Collected: 01/31/17 11:35**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

### 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			02/06/17 14:14	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 14:14	1
Sulfate	<0.70		1.0	0.70	mg/L			02/06/17 14:14	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		02/07/17 09:25	02/07/17 14:09	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 14:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 14:09	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 14:09	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 14:09	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 14:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:09	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 14:09	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 14:09	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 14:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:09	5
Calcium	<0.13		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 14:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 14:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 14:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 14:09	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 14:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 14:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 14:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 14:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000078	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:30	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			02/05/17 09:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**  
**Date Collected: 01/31/17 11:45**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		1.0	0.89	mg/L			02/06/17 15:23	1
Fluoride	0.19	J	0.20	0.082	mg/L			02/06/17 15:23	1
Sulfate	23		1.0	0.70	mg/L			02/06/17 15:23	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		02/07/17 09:25	02/07/17 14:14	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 14:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 14:14	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 14:14	5
Barium	0.022		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 14:14	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 14:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:14	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 14:14	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 14:14	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 14:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:14	5
Calcium	40		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 14:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 14:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 14:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 14:14	5
Lithium	0.0040	J	0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 14:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 14:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 14:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 14:14	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:41	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			02/05/17 09:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-11**  
**Date Collected: 01/31/17 14:30**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-4**  
**Matrix: Water**

### 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			02/06/17 15:46	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 15:46	1
Sulfate	3.7		1.0	0.70	mg/L			02/06/17 15:46	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		02/07/17 09:25	02/07/17 14:36	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 14:36	5
Arsenic	0.0010	J	0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 14:36	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 14:36	5
Barium	0.19		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 14:36	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 14:36	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:36	5
Vanadium	0.0029		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 14:36	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 14:36	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 14:36	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:36	5
Calcium	8.0		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 14:36	5
Chromium	0.0022	J	0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 14:36	5
Cobalt	0.012		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 14:36	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 14:36	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 14:36	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 14:36	5
Selenium	0.00033	J	0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 14:36	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 14:36	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000071	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:42	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			02/05/17 09:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Date Collected: 01/31/17 14:30**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-5**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			02/06/17 16:08	1
Fluoride	0.11	J	0.20	0.082	mg/L			02/06/17 16:08	1
Sulfate	2.6		1.0	0.70	mg/L			02/06/17 16:08	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		02/07/17 09:25	02/07/17 14:59	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 14:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 14:59	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 14:59	5
Barium	0.0029		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 14:59	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 14:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:59	5
Vanadium	0.0015	J	0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 14:59	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 14:59	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 14:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 14:59	5
Calcium	4.1		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 14:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 14:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 14:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 14:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 14:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 14:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 14:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 14:59	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000096	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:47	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		5.0	3.4	mg/L			02/05/17 09:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-133486-6**

**Date Collected: 02/01/17 09:55**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

**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			02/06/17 16:31	1
Fluoride	0.086	J	0.20	0.082	mg/L			02/06/17 16:31	1
Sulfate	1.9		1.0	0.70	mg/L			02/06/17 16:31	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		02/07/17 09:25	02/07/17 15:03	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:03	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:03	5
Barium	0.0090		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:03	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:03	5
Vanadium	0.0016	J	0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:03	5
Boron	0.023	J	0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:03	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:03	5
Calcium	9.6		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:03	5
Lithium	0.0061		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:03	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00013	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:49	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			02/05/17 10:42	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Date Collected: 02/01/17 10:35**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-7**

**Matrix: Water**

**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			02/06/17 16:54	1
Fluoride	1.3		0.20	0.082	mg/L			02/06/17 16:54	1
Sulfate	40		1.0	0.70	mg/L			02/06/17 16:54	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		02/07/17 09:25	02/07/17 15:08	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:08	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:08	5
Nickel	0.0043		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:08	5
Barium	0.023		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:08	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:08	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:08	5
Vanadium	0.0032		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:08	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:08	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:08	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:08	5
Calcium	26		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:08	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:08	5
Cobalt	0.0090		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:08	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:08	5
Lithium	0.0079		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:08	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:08	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:08	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:08	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			02/05/17 10:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-133486-8**

**Date Collected: 02/01/17 11:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.4</b>		1.0	0.89	mg/L			02/06/17 17:17	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 17:17	1
Sulfate	<0.70		1.0	0.70	mg/L			02/06/17 17:17	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		02/07/17 09:25	02/07/17 15:13	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:13	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:13	5
<b>Barium</b>	<b>0.018</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:13	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:13	5
<b>Vanadium</b>	<b>0.0067</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:13	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:13	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:13	5
<b>Calcium</b>	<b>6.8</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:13	5
<b>Chromium</b>	<b>0.0024 J</b>		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00015</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:52	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>70</b>		5.0	3.4	mg/L			02/05/17 10:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-133486-9**

**Date Collected: 02/01/17 12:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46		1.0	0.89	mg/L			02/06/17 18:03	1
Fluoride	<0.082		0.20	0.082	mg/L			02/06/17 18:03	1
Sulfate	8.2		1.0	0.70	mg/L			02/06/17 18:03	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		02/07/17 09:25	02/07/17 15:17	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:17	5
Nickel	0.013		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:17	5
Barium	0.088		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:17	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:17	5
Vanadium	0.0020	J	0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:17	5
Boron	0.29		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:17	5
Zinc	0.0084	J	0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:17	5
Calcium	15		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:17	5
Cobalt	0.20		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:17	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:17	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:17	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:17	5
Thallium	0.00041	J	0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000092	J B	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:53	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			02/05/17 10:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**  
**Date Collected: 02/01/17 13:45**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-10**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.2</b>		1.0	0.89	mg/L			02/07/17 22:12	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/07/17 22:12	1
Sulfate	<0.70		1.0	0.70	mg/L			02/07/17 22:12	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		02/07/17 09:25	02/07/17 15:22	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:22	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:22	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:22	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:22	5
<b>Vanadium</b>	<b>0.0044</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:22	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:22	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:22	5
<b>Calcium</b>	<b>8.7</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:22	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:22	5
<b>Lead</b>	<b>0.00090</b>	<b>J</b>	0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:22	5
<b>Lithium</b>	<b>0.0053</b>		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00020</b>	<b>B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:06	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			02/05/17 10:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-133486-11**

**Date Collected: 02/01/17 14:05**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			02/07/17 22:35	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/07/17 22:35	1
Sulfate	<0.70		1.0	0.70	mg/L			02/07/17 22:35	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		02/07/17 09:25	02/07/17 15:26	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:26	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:26	5
<b>Barium</b>	<b>0.037</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:26	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:26	5
<b>Vanadium</b>	<b>0.0036</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:26	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:26	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:26	5
<b>Calcium</b>	<b>7.3</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:26	5
<b>Chromium</b>	<b>0.0014</b>	<b>J</b>	0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:26	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:26	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:26	5
<b>Lithium</b>	<b>0.0035</b>	<b>J</b>	0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:26	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:26	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000098</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:07	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>66</b>		5.0	3.4	mg/L			02/05/17 10:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**  
**Date Collected: 02/01/17 14:35**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-12**  
**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			02/07/17 22:58	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/07/17 22:58	1
Sulfate	<0.70		1.0	0.70	mg/L			02/07/17 22:58	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		02/07/17 09:25	02/07/17 15:31	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:31	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:31	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:31	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:31	5
<b>Vanadium</b>	<b>0.0030</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:31	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:31	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:31	5
Calcium	<0.13		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:31	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:31	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:31	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:31	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:31	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:31	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:31	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000093</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:09	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			02/05/17 10:42	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 02/01/17 00:00**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-13**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.4</b>		1.0	0.89	mg/L			02/07/17 23:21	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/07/17 23:21	1
Sulfate	<0.70		1.0	0.70	mg/L			02/07/17 23:21	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		02/07/17 09:25	02/07/17 15:35	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:35	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:35	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:35	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:35	5
<b>Vanadium</b>	<b>0.0062</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:35	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:35	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:35	5
<b>Calcium</b>	<b>7.0</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:35	5
<b>Chromium</b>	<b>0.0025</b>		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:35	5
<b>Lithium</b>	<b>0.0035</b>	<b>J</b>	0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00012</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>74</b>		5.0	3.4	mg/L			02/05/17 09:49	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**

**Date Collected: 02/02/17 09:40**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-14**

**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			02/07/17 23:44	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/07/17 23:44	1
Sulfate	<0.70		1.0	0.70	mg/L			02/07/17 23:44	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		02/07/17 09:25	02/07/17 15:40	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 15:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 15:40	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 15:40	5
<b>Barium</b>	<b>0.014</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 15:40	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 15:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:40	5
<b>Vanadium</b>	<b>0.0028</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 15:40	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 15:40	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 15:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 15:40	5
<b>Calcium</b>	<b>3.3</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 15:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 15:40	5
<b>Cobalt</b>	<b>0.00040</b>	<b>J</b>	0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 15:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 15:40	5
<b>Lithium</b>	<b>0.012</b>		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 15:40	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 15:40	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 15:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 15:40	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00011</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:11	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>36</b>		5.0	3.4	mg/L			02/06/17 13:02	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**

**Date Collected: 02/02/17 09:45**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-15**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			02/08/17 00:06	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/08/17 00:06	1
Sulfate	<0.70		1.0	0.70	mg/L			02/08/17 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		02/07/17 09:25	02/07/17 16:03	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 16:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 16:03	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 16:03	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 16:03	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 16:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:03	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 16:03	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 16:03	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 16:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:03	5
Calcium	<0.13		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 16:03	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 16:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 16:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 16:03	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 16:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 16:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 16:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 16:03	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00012	J B	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:12	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			02/06/17 13:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**  
**Date Collected: 02/02/17 10:20**  
**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-16**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.1</b>		1.0	0.89	mg/L			02/08/17 00:29	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/08/17 00:29	1
<b>Sulfate</b>	<b>8.6</b>		1.0	0.70	mg/L			02/08/17 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		02/07/17 09:25	02/07/17 16:07	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 16:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 16:07	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 16:07	5
<b>Barium</b>	<b>0.085</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 16:07	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 16:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:07	5
<b>Vanadium</b>	<b>0.0015</b>	<b>J</b>	0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 16:07	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 16:07	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 16:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:07	5
<b>Calcium</b>	<b>14</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 16:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 16:07	5
<b>Cobalt</b>	<b>0.011</b>		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 16:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 16:07	5
<b>Lithium</b>	<b>0.0054</b>		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 16:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 16:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 16:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 16:07	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00011</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>96</b>		5.0	3.4	mg/L			02/06/17 13:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 02/02/17 13:35**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-17**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			02/08/17 00:52	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/08/17 00:52	1
<b>Sulfate</b>	<b>0.82</b>	<b>J</b>	1.0	0.70	mg/L			02/08/17 00:52	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		02/07/17 09:25	02/07/17 16:12	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 16:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 16:12	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 16:12	5
<b>Barium</b>	<b>0.035</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 16:12	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 16:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:12	5
<b>Vanadium</b>	<b>0.0031</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 16:12	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 16:12	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 16:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:12	5
<b>Calcium</b>	<b>8.9</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 16:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 16:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 16:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 16:12	5
<b>Lithium</b>	<b>0.0041</b>	<b>J</b>	0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 16:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 16:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 16:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 16:12	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000086</b>	<b>J B</b>	0.00020	0.000070	mg/L		02/07/17 08:53	02/09/17 14:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			02/06/17 13:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Date Collected: 02/03/17 09:10**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-18**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.89	mg/L			02/08/17 01:15	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/08/17 01:15	1
Sulfate	<0.70		1.0	0.70	mg/L			02/08/17 01:15	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		02/07/17 09:25	02/07/17 16:16	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 16:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 16:16	5
Nickel	0.0025		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 16:16	5
Barium	0.020		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 16:16	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 16:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:16	5
Vanadium	0.0015	J	0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 16:16	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 16:16	5
Zinc	0.0094	J	0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 16:16	5
Cadmium	0.0021	J	0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:16	5
Calcium	1.2		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 16:16	5
Chromium	0.0011	J	0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 16:16	5
Cobalt	0.00097	J	0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 16:16	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 16:16	5
Lithium	0.0043	J	0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 16:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 16:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 16:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 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		02/07/17 08:53	02/09/17 14:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26		5.0	3.4	mg/L			02/07/17 14:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 02/03/17 10:15**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-19**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			02/08/17 02:54	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/08/17 02:54	1
Sulfate	<0.70		1.0	0.70	mg/L			02/08/17 02:54	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		02/07/17 09:25	02/07/17 16:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 16:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 16:21	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 16:21	5
<b>Barium</b>	<b>0.0050</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 16:21	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 16:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:21	5
<b>Vanadium</b>	<b>0.0016</b>	J	0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 16:21	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 16:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 16:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:21	5
<b>Calcium</b>	<b>3.3</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 16:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 16:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 16:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 16:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 16:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 16:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 16:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 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		02/07/17 08:53	02/09/17 14:17	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>20</b>		5.0	3.4	mg/L			02/07/17 14:40	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**  
**Date Collected: 02/03/17 10:50**  
**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-20**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.6</b>		1.0	0.89	mg/L			02/08/17 03:17	1
Fluoride	<0.082	*	0.20	0.082	mg/L			02/08/17 03:17	1
Sulfate	<0.70		1.0	0.70	mg/L			02/08/17 03:17	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		02/07/17 09:25	02/07/17 16:25	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 16:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 16:25	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 16:25	5
<b>Barium</b>	<b>0.027</b>		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 16:25	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 16:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:25	5
<b>Vanadium</b>	<b>0.0082</b>		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 16:25	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 16:25	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 16:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 16:25	5
<b>Calcium</b>	<b>11</b>		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 16:25	5
<b>Chromium</b>	<b>0.0011</b>	J	0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 16:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 16:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 16:25	5
<b>Lithium</b>	<b>0.0042</b>	J	0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 16:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 16:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 16:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 16:25	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		02/07/17 08:53	02/09/17 14:24	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			02/07/17 14:40	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
*	LCS or LCSD 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.

### 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.
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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**

**Date Collected: 01/31/17 11:00**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-1**

**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 13:52	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 14:05	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341037	02/05/17 09:49	RRC	TAL PEN

**Client Sample ID: FERB-2**

**Date Collected: 01/31/17 11:35**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-2**

**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 14:14	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 14:09	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341037	02/05/17 09:49	RRC	TAL PEN

**Client Sample ID: GWC-12**

**Date Collected: 01/31/17 11:45**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-3**

**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 15:23	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 14:14	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341037	02/05/17 09:49	RRC	TAL PEN

**Client Sample ID: GWC-11**

**Date Collected: 01/31/17 14:30**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-4**

**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 15:46	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 14:36	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341037	02/05/17 09:49	RRC	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-133486-5**

**Date Collected: 01/31/17 14:30**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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 16:08	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 14:59	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341037	02/05/17 09:49	RRC	TAL PEN

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-133486-6**

**Date Collected: 02/01/17 09:55**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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 16:31	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:03	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-133486-7**

**Date Collected: 02/01/17 10:35**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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 16:54	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:08	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-133486-8**

**Date Collected: 02/01/17 11:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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 17:17	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:13	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-133486-9**

**Date Collected: 02/01/17 12:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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 18:03	KH1	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:17	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:49	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 13:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-133486-10**

**Date Collected: 02/01/17 13:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/07/17 22:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:22	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-133486-11**

**Date Collected: 02/01/17 14:05**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/07/17 22:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:26	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-133486-12**

**Date Collected: 02/01/17 14:35**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/07/17 22:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:31	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341038	02/05/17 10:42	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-133486-13**

**Date Collected: 02/01/17 00:00**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/07/17 23:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:35	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341037	02/05/17 09:49	RRC	TAL PEN

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-133486-14**

**Date Collected: 02/02/17 09:40**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/07/17 23:44	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 15:40	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341137	02/06/17 13:02	TET	TAL PEN

**Client Sample ID: FB-3**

**Lab Sample ID: 400-133486-15**

**Date Collected: 02/02/17 09:45**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/08/17 00:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 16:03	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341137	02/06/17 13:02	TET	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-133486-16**

**Date Collected: 02/02/17 10:20**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/08/17 00:29	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 16:07	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341137	02/06/17 13:02	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-133486-17**

**Date Collected: 02/02/17 13:35**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/08/17 00:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 16:12	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341137	02/06/17 13:02	TET	TAL PEN

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-133486-18**

**Date Collected: 02/03/17 09:10**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/08/17 01:15	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 16:16	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341280	02/07/17 14:40	TET	TAL PEN

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-133486-19**

**Date Collected: 02/03/17 10:15**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/08/17 02:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 16:21	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341280	02/07/17 14:40	TET	TAL PEN

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-133486-20**

**Date Collected: 02/03/17 10:50**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	341315	02/08/17 03:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			341205	02/07/17 09:25	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	341398	02/07/17 16:25	DRE	TAL PEN
Total/NA	Prep	7470A			341212	02/07/17 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	341658	02/09/17 14:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	341280	02/07/17 14:40	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

**Laboratory References:**

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

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 341083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total/NA	Water	300.0	
400-133486-2	FERB-2	Total/NA	Water	300.0	
400-133486-3	GWC-12	Total/NA	Water	300.0	
400-133486-4	GWC-11	Total/NA	Water	300.0	
400-133486-5	GWC-13	Total/NA	Water	300.0	
400-133486-6	GWC-15	Total/NA	Water	300.0	
400-133486-7	GWC-10	Total/NA	Water	300.0	
400-133486-8	GWC-16	Total/NA	Water	300.0	
400-133486-9	GWC-14	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	

### Analysis Batch: 341315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-10	GWC-17	Total/NA	Water	300.0	
400-133486-11	GWC-18	Total/NA	Water	300.0	
400-133486-12	FERB-3	Total/NA	Water	300.0	
400-133486-13	DUP-3	Total/NA	Water	300.0	
400-133486-14	GWC-21	Total/NA	Water	300.0	
400-133486-15	FB-3	Total/NA	Water	300.0	
400-133486-16	GWC-19	Total/NA	Water	300.0	
400-133486-17	GWC-20	Total/NA	Water	300.0	
400-133486-18	GWC-24	Total/NA	Water	300.0	
400-133486-19	GWC-23	Total/NA	Water	300.0	
400-133486-20	GWC-22	Total/NA	Water	300.0	
MB 400-341315/4	Method Blank	Total/NA	Water	300.0	
LCS 400-341315/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-341315/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-133545-G-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-133545-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 341205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total Recoverable	Water	3005A	
400-133486-2	FERB-2	Total Recoverable	Water	3005A	
400-133486-3	GWC-12	Total Recoverable	Water	3005A	
400-133486-4	GWC-11	Total Recoverable	Water	3005A	
400-133486-5	GWC-13	Total Recoverable	Water	3005A	
400-133486-6	GWC-15	Total Recoverable	Water	3005A	
400-133486-7	GWC-10	Total Recoverable	Water	3005A	
400-133486-8	GWC-16	Total Recoverable	Water	3005A	
400-133486-9	GWC-14	Total Recoverable	Water	3005A	
400-133486-10	GWC-17	Total Recoverable	Water	3005A	
400-133486-11	GWC-18	Total Recoverable	Water	3005A	
400-133486-12	FERB-3	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 341205 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-13	DUP-3	Total Recoverable	Water	3005A	
400-133486-14	GWC-21	Total Recoverable	Water	3005A	
400-133486-15	FB-3	Total Recoverable	Water	3005A	
400-133486-16	GWC-19	Total Recoverable	Water	3005A	
400-133486-17	GWC-20	Total Recoverable	Water	3005A	
400-133486-18	GWC-24	Total Recoverable	Water	3005A	
400-133486-19	GWC-23	Total Recoverable	Water	3005A	
400-133486-20	GWC-22	Total Recoverable	Water	3005A	
MB 400-341205/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-341205/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-133486-3 MS	GWC-12	Total Recoverable	Water	3005A	
400-133486-3 MSD	GWC-12	Total Recoverable	Water	3005A	

### Prep Batch: 341212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total/NA	Water	7470A	
400-133486-2	FERB-2	Total/NA	Water	7470A	
400-133486-3	GWC-12	Total/NA	Water	7470A	
400-133486-4	GWC-11	Total/NA	Water	7470A	
400-133486-5	GWC-13	Total/NA	Water	7470A	
400-133486-6	GWC-15	Total/NA	Water	7470A	
400-133486-7	GWC-10	Total/NA	Water	7470A	
400-133486-8	GWC-16	Total/NA	Water	7470A	
400-133486-9	GWC-14	Total/NA	Water	7470A	
400-133486-10	GWC-17	Total/NA	Water	7470A	
400-133486-11	GWC-18	Total/NA	Water	7470A	
400-133486-12	FERB-3	Total/NA	Water	7470A	
400-133486-13	DUP-3	Total/NA	Water	7470A	
400-133486-14	GWC-21	Total/NA	Water	7470A	
400-133486-15	FB-3	Total/NA	Water	7470A	
400-133486-16	GWC-19	Total/NA	Water	7470A	
400-133486-17	GWC-20	Total/NA	Water	7470A	
400-133486-18	GWC-24	Total/NA	Water	7470A	
400-133486-19	GWC-23	Total/NA	Water	7470A	
400-133486-20	GWC-22	Total/NA	Water	7470A	
MB 400-341212/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-341212/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-133486-4 MS	GWC-11	Total/NA	Water	7470A	
400-133486-4 MSD	GWC-11	Total/NA	Water	7470A	

### Analysis Batch: 341398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total Recoverable	Water	6020	341205
400-133486-2	FERB-2	Total Recoverable	Water	6020	341205
400-133486-3	GWC-12	Total Recoverable	Water	6020	341205
400-133486-4	GWC-11	Total Recoverable	Water	6020	341205
400-133486-5	GWC-13	Total Recoverable	Water	6020	341205
400-133486-6	GWC-15	Total Recoverable	Water	6020	341205
400-133486-7	GWC-10	Total Recoverable	Water	6020	341205
400-133486-8	GWC-16	Total Recoverable	Water	6020	341205
400-133486-9	GWC-14	Total Recoverable	Water	6020	341205

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 341398 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-10	GWC-17	Total Recoverable	Water	6020	341205
400-133486-11	GWC-18	Total Recoverable	Water	6020	341205
400-133486-12	FERB-3	Total Recoverable	Water	6020	341205
400-133486-13	DUP-3	Total Recoverable	Water	6020	341205
400-133486-14	GWC-21	Total Recoverable	Water	6020	341205
400-133486-15	FB-3	Total Recoverable	Water	6020	341205
400-133486-16	GWC-19	Total Recoverable	Water	6020	341205
400-133486-17	GWC-20	Total Recoverable	Water	6020	341205
400-133486-18	GWC-24	Total Recoverable	Water	6020	341205
400-133486-19	GWC-23	Total Recoverable	Water	6020	341205
400-133486-20	GWC-22	Total Recoverable	Water	6020	341205
MB 400-341205/1-A ^5	Method Blank	Total Recoverable	Water	6020	341205
LCS 400-341205/2-A	Lab Control Sample	Total Recoverable	Water	6020	341205
400-133486-3 MS	GWC-12	Total Recoverable	Water	6020	341205
400-133486-3 MSD	GWC-12	Total Recoverable	Water	6020	341205

### Analysis Batch: 341658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total/NA	Water	7470A	341212
400-133486-2	FERB-2	Total/NA	Water	7470A	341212
400-133486-3	GWC-12	Total/NA	Water	7470A	341212
400-133486-4	GWC-11	Total/NA	Water	7470A	341212
400-133486-5	GWC-13	Total/NA	Water	7470A	341212
400-133486-6	GWC-15	Total/NA	Water	7470A	341212
400-133486-7	GWC-10	Total/NA	Water	7470A	341212
400-133486-8	GWC-16	Total/NA	Water	7470A	341212
400-133486-9	GWC-14	Total/NA	Water	7470A	341212
400-133486-10	GWC-17	Total/NA	Water	7470A	341212
400-133486-11	GWC-18	Total/NA	Water	7470A	341212
400-133486-12	FERB-3	Total/NA	Water	7470A	341212
400-133486-13	DUP-3	Total/NA	Water	7470A	341212
400-133486-14	GWC-21	Total/NA	Water	7470A	341212
400-133486-15	FB-3	Total/NA	Water	7470A	341212
400-133486-16	GWC-19	Total/NA	Water	7470A	341212
400-133486-17	GWC-20	Total/NA	Water	7470A	341212
400-133486-18	GWC-24	Total/NA	Water	7470A	341212
400-133486-19	GWC-23	Total/NA	Water	7470A	341212
400-133486-20	GWC-22	Total/NA	Water	7470A	341212
MB 400-341212/14-A	Method Blank	Total/NA	Water	7470A	341212
LCS 400-341212/15-A	Lab Control Sample	Total/NA	Water	7470A	341212
400-133486-4 MS	GWC-11	Total/NA	Water	7470A	341212
400-133486-4 MSD	GWC-11	Total/NA	Water	7470A	341212

## General Chemistry

### Analysis Batch: 341037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total/NA	Water	SM 2540C	
400-133486-2	FERB-2	Total/NA	Water	SM 2540C	
400-133486-3	GWC-12	Total/NA	Water	SM 2540C	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## General Chemistry (Continued)

### Analysis Batch: 341037 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-4	GWC-11	Total/NA	Water	SM 2540C	
400-133486-5	GWC-13	Total/NA	Water	SM 2540C	
400-133486-13	DUP-3	Total/NA	Water	SM 2540C	
MB 400-341037/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341037/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133486-1 DU	GWC-9	Total/NA	Water	SM 2540C	
400-133486-4 DU	GWC-11	Total/NA	Water	SM 2540C	

### Analysis Batch: 341038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-6	GWC-15	Total/NA	Water	SM 2540C	
400-133486-7	GWC-10	Total/NA	Water	SM 2540C	
400-133486-8	GWC-16	Total/NA	Water	SM 2540C	
400-133486-9	GWC-14	Total/NA	Water	SM 2540C	
400-133486-10	GWC-17	Total/NA	Water	SM 2540C	
400-133486-11	GWC-18	Total/NA	Water	SM 2540C	
400-133486-12	FERB-3	Total/NA	Water	SM 2540C	
MB 400-341038/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341038/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133400-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 341137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-14	GWC-21	Total/NA	Water	SM 2540C	
400-133486-15	FB-3	Total/NA	Water	SM 2540C	
400-133486-16	GWC-19	Total/NA	Water	SM 2540C	
400-133486-17	GWC-20	Total/NA	Water	SM 2540C	
MB 400-341137/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341137/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133475-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 341280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-18	GWC-24	Total/NA	Water	SM 2540C	
400-133486-19	GWC-23	Total/NA	Water	SM 2540C	
400-133486-20	GWC-22	Total/NA	Water	SM 2540C	
MB 400-341280/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-341280/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-133530-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**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

**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
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

**Lab Sample ID: MB 400-341315/4**  
**Matrix: Water**  
**Analysis Batch: 341315**

**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			02/07/17 18:47	1
Fluoride	<0.082		0.20	0.082	mg/L			02/07/17 18:47	1
Sulfate	<0.70		1.0	0.70	mg/L			02/07/17 18:47	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-341315/5**  
**Matrix: Water**  
**Analysis Batch: 341315**

**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	11.2	*	mg/L		112	90 - 110
Sulfate	10.0	11.0		mg/L		110	90 - 110

**Lab Sample ID: LCSD 400-341315/6**  
**Matrix: Water**  
**Analysis Batch: 341315**

**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	10.8		mg/L		108	90 - 110	3	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	2	15

**Lab Sample ID: 400-133545-G-1 MS**  
**Matrix: Water**  
**Analysis Batch: 341315**

**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	8.3		10.0	18.4		mg/L		100	80 - 120
Fluoride	0.40	*	10.0	11.5		mg/L		111	80 - 120
Sulfate	9.4		10.0	20.7		mg/L		112	80 - 120

**Lab Sample ID: 400-133545-G-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 341315**

**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	8.3		10.0	18.4		mg/L		101	80 - 120	0	20
Fluoride	0.40	*	10.0	11.5		mg/L		111	80 - 120	0	20
Sulfate	9.4		10.0	20.5		mg/L		111	80 - 120	1	20

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

**Lab Sample ID: MB 400-341205/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		02/07/17 09:25	02/07/17 13:56	5
Copper	<0.0021		0.0025	0.0021	mg/L		02/07/17 09:25	02/07/17 13:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		02/07/17 09:25	02/07/17 13:56	5
Nickel	<0.0018		0.0025	0.0018	mg/L		02/07/17 09:25	02/07/17 13:56	5
Barium	<0.00049		0.0025	0.00049	mg/L		02/07/17 09:25	02/07/17 13:56	5
Silver	<0.00011		0.00025	0.00011	mg/L		02/07/17 09:25	02/07/17 13:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 13:56	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		02/07/17 09:25	02/07/17 13:56	5
Boron	<0.021		0.050	0.021	mg/L		02/07/17 09:25	02/07/17 13:56	5
Zinc	<0.0065		0.020	0.0065	mg/L		02/07/17 09:25	02/07/17 13:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		02/07/17 09:25	02/07/17 13:56	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-341205/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		02/07/17 09:25	02/07/17 13:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		02/07/17 09:25	02/07/17 13:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		02/07/17 09:25	02/07/17 13:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		02/07/17 09:25	02/07/17 13:56	5
Lithium	<0.0032		0.0050	0.0032	mg/L		02/07/17 09:25	02/07/17 13:56	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		02/07/17 09:25	02/07/17 13:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		02/07/17 09:25	02/07/17 13:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		02/07/17 09:25	02/07/17 13:56	5

**Lab Sample ID: LCS 400-341205/2-A**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0535		mg/L		107	80 - 120
Copper	0.0500	0.0523		mg/L		105	80 - 120
Arsenic	0.0500	0.0535		mg/L		107	80 - 120
Nickel	0.0500	0.0525		mg/L		105	80 - 120
Barium	0.0500	0.0536		mg/L		107	80 - 120
Silver	0.0500	0.0524		mg/L		105	80 - 120
Beryllium	0.0500	0.0520		mg/L		104	80 - 120
Vanadium	0.0500	0.0516		mg/L		103	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Zinc	0.0500	0.0526		mg/L		105	80 - 120
Cadmium	0.0500	0.0533		mg/L		107	80 - 120
Calcium	5.00	5.16		mg/L		103	80 - 120
Chromium	0.0500	0.0519		mg/L		104	80 - 120
Cobalt	0.0500	0.0506		mg/L		101	80 - 120
Lead	0.0500	0.0522		mg/L		104	80 - 120
Lithium	0.0500	0.0523		mg/L		105	80 - 120
Molybdenum	0.100	0.105		mg/L		105	80 - 120
Selenium	0.0500	0.0514		mg/L		103	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

**Lab Sample ID: 400-133486-3 MS**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: GWC-12**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0557		mg/L		111	75 - 125
Antimony	<0.0010		0.0500	0.0557		mg/L		111	75 - 125
Copper	<0.0021		0.0500	0.0529		mg/L		106	75 - 125
Copper	<0.0021		0.0500	0.0529		mg/L		106	75 - 125
Arsenic	<0.00046		0.0500	0.0546		mg/L		109	75 - 125
Arsenic	<0.00046		0.0500	0.0546		mg/L		109	75 - 125
Nickel	<0.0018		0.0500	0.0532		mg/L		106	75 - 125
Nickel	<0.0018		0.0500	0.0532		mg/L		106	75 - 125
Barium	0.022		0.0500	0.0754		mg/L		106	75 - 125
Barium	0.022		0.0500	0.0754		mg/L		106	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-133486-3 MS**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: GWC-12**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.00011		0.0500	0.0505		mg/L		101	75 - 125
Silver	<0.00011		0.0500	0.0505		mg/L		101	75 - 125
Beryllium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125
Beryllium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125
Vanadium	<0.0014		0.0500	0.0514		mg/L		103	75 - 125
Vanadium	<0.0014		0.0500	0.0514		mg/L		103	75 - 125
Boron	<0.021		0.100	0.118		mg/L		118	75 - 125
Boron	<0.021		0.100	0.118		mg/L		118	75 - 125
Zinc	<0.0065		0.0500	0.0562		mg/L		112	75 - 125
Zinc	<0.0065		0.0500	0.0562		mg/L		112	75 - 125
Cadmium	<0.00034		0.0500	0.0537		mg/L		107	75 - 125
Cadmium	<0.00034		0.0500	0.0537		mg/L		107	75 - 125
Calcium	40		5.00	44.5	4	mg/L		89	75 - 125
Calcium	40		5.00	44.5	4	mg/L		89	75 - 125
Chromium	<0.0011		0.0500	0.0527		mg/L		105	75 - 125
Chromium	<0.0011		0.0500	0.0527		mg/L		105	75 - 125
Cobalt	<0.00040		0.0500	0.0508		mg/L		102	75 - 125
Cobalt	<0.00040		0.0500	0.0508		mg/L		102	75 - 125
Lead	<0.00035		0.0500	0.0511		mg/L		102	75 - 125
Lead	<0.00035		0.0500	0.0511		mg/L		102	75 - 125
Lithium	0.0040	J	0.0500	0.0508		mg/L		94	75 - 125
Lithium	0.0040	J	0.0500	0.0508		mg/L		94	75 - 125
Molybdenum	<0.00085		0.100	0.106		mg/L		106	75 - 125
Molybdenum	<0.00085		0.100	0.106		mg/L		106	75 - 125
Selenium	<0.00024		0.0500	0.0524		mg/L		105	75 - 125
Selenium	<0.00024		0.0500	0.0524		mg/L		105	75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103	75 - 125

**Lab Sample ID: 400-133486-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: GWC-12**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0010		0.0500	0.0545		mg/L		109	75 - 125	2	20
Antimony	<0.0010		0.0500	0.0545		mg/L		109	75 - 125	2	20
Copper	<0.0021		0.0500	0.0538		mg/L		108	75 - 125	2	20
Copper	<0.0021		0.0500	0.0538		mg/L		108	75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0548		mg/L		110	75 - 125	0	20
Arsenic	<0.00046		0.0500	0.0548		mg/L		110	75 - 125	0	20
Nickel	<0.0018		0.0500	0.0541		mg/L		108	75 - 125	2	20
Nickel	<0.0018		0.0500	0.0541		mg/L		108	75 - 125	2	20
Barium	0.022		0.0500	0.0757		mg/L		107	75 - 125	0	20
Barium	0.022		0.0500	0.0757		mg/L		107	75 - 125	0	20
Silver	<0.00011		0.0500	0.0517		mg/L		103	75 - 125	2	20
Silver	<0.00011		0.0500	0.0517		mg/L		103	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0521		mg/L		104	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0521		mg/L		104	75 - 125	1	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-133486-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 341398**

**Client Sample ID: GWC-12**  
**Prep Type: Total Recoverable**  
**Prep Batch: 341205**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Vanadium	<0.0014		0.0500	0.0524		mg/L		105	75 - 125	2	20
Vanadium	<0.0014		0.0500	0.0524		mg/L		105	75 - 125	2	20
Boron	<0.021		0.100	0.114		mg/L		114	75 - 125	4	20
Boron	<0.021		0.100	0.114		mg/L		114	75 - 125	4	20
Zinc	<0.0065		0.0500	0.0553		mg/L		111	75 - 125	2	20
Zinc	<0.0065		0.0500	0.0553		mg/L		111	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0530		mg/L		106	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0530		mg/L		106	75 - 125	1	20
Calcium	40		5.00	44.4	4	mg/L		87	75 - 125	0	20
Calcium	40		5.00	44.4	4	mg/L		87	75 - 125	0	20
Chromium	<0.0011		0.0500	0.0531		mg/L		106	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0531		mg/L		106	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0514		mg/L		103	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0514		mg/L		103	75 - 125	1	20
Lead	<0.00035		0.0500	0.0522		mg/L		104	75 - 125	2	20
Lead	<0.00035		0.0500	0.0522		mg/L		104	75 - 125	2	20
Lithium	0.0040	J	0.0500	0.0513		mg/L		95	75 - 125	1	20
Lithium	0.0040	J	0.0500	0.0513		mg/L		95	75 - 125	1	20
Molybdenum	<0.00085		0.100	0.103		mg/L		103	75 - 125	3	20
Molybdenum	<0.00085		0.100	0.103		mg/L		103	75 - 125	3	20
Selenium	<0.00024		0.0500	0.0521		mg/L		104	75 - 125	1	20
Selenium	<0.00024		0.0500	0.0521		mg/L		104	75 - 125	1	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	2	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-341212/14-A**  
**Matrix: Water**  
**Analysis Batch: 341658**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 341212**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.0000993	J	0.00020	0.000070	mg/L		02/07/17 08:49	02/09/17 13:26	1

**Lab Sample ID: LCS 400-341212/15-A**  
**Matrix: Water**  
**Analysis Batch: 341658**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 341212**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

**Lab Sample ID: 400-133486-4 MS**  
**Matrix: Water**  
**Analysis Batch: 341658**

**Client Sample ID: GWC-11**  
**Prep Type: Total/NA**  
**Prep Batch: 341212**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	0.000071	J B	0.00201	0.00202		mg/L		97	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-133486-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 341658**

**Client Sample ID: GWC-11**  
**Prep Type: Total/NA**  
**Prep Batch: 341212**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000071	J B	0.00201	0.00198		mg/L		95	80 - 120	2	20

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

**Lab Sample ID: MB 400-341037/1**  
**Matrix: Water**  
**Analysis Batch: 341037**

**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			02/05/17 09:49	1

**Lab Sample ID: LCS 400-341037/2**  
**Matrix: Water**  
**Analysis Batch: 341037**

**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: 400-133486-1 DU**  
**Matrix: Water**  
**Analysis Batch: 341037**

**Client Sample ID: GWC-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		164		mg/L		0	5

**Lab Sample ID: 400-133486-4 DU**  
**Matrix: Water**  
**Analysis Batch: 341037**

**Client Sample ID: GWC-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		108		mg/L		2	5

**Lab Sample ID: MB 400-341038/1**  
**Matrix: Water**  
**Analysis Batch: 341038**

**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			02/05/17 10:42	1

**Lab Sample ID: LCS 400-341038/2**  
**Matrix: Water**  
**Analysis Batch: 341038**

**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	296		mg/L		101	78 - 122

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-133400-A-8 DU**  
**Matrix: Water**  
**Analysis Batch: 341038**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	720		720		mg/L		0	5

**Lab Sample ID: MB 400-341137/1**  
**Matrix: Water**  
**Analysis Batch: 341137**

**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			02/06/17 13:02	1

**Lab Sample ID: LCS 400-341137/2**  
**Matrix: Water**  
**Analysis Batch: 341137**

**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	296		mg/L		101	78 - 122

**Lab Sample ID: 400-133475-A-4 DU**  
**Matrix: Water**  
**Analysis Batch: 341137**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	290		290		mg/L		0	5

**Lab Sample ID: MB 400-341280/1**  
**Matrix: Water**  
**Analysis Batch: 341280**

**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			02/07/17 14:40	1

**Lab Sample ID: LCS 400-341280/2**  
**Matrix: Water**  
**Analysis Batch: 341280**

**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: 400-133530-A-3 DU**  
**Matrix: Water**  
**Analysis Batch: 341280**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	64		64.0		mg/L		0	5



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2871

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact: Jojo 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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

Lab Pl#: Whitmire, Cheyenne R  
 E-Mail: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):  
 Job #: 400-133486 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=air, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Performance (Yes or No)	Analysis Requested				Total Number of Containers	Special Instructions/Note:
							TDS - SM 2640C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Metals State Permit (EPA 6020)		
GWC-9	1/31/17	1100	G	W	X	X	X	X	X	X	3	
FEB-2	1/31/17	1135	G	W	X	X	X	X	X	X	3	
GWC-12	1/31/17	1145	G	W	X	X	X	X	X	X	3	
GWC-11	1/31/17	1430	G	W	X	X	X	X	X	X	3	
GWC-13	1/31/17	1430	G	W	X	X	X	X	X	X	3	

**Due Date Requested:**  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

**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: 2/2/17 / 1140 Company: TA  
 Relinquished by: \_\_\_\_\_ Date/Time: 2/3/17 0322 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: 5.9°C, 4.1°C, 0.0°C, 2.2°C

**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: 2/2/17 1140 Company: TA  
 Received by: \_\_\_\_\_ Date/Time: 2-3-17 0322 Company: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_



**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**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:  
Plant Wansley - Gypsum Landfill

Site:  
CCR & State Permit

Sampler:  
C. Hurdle & J. Morrison Jr

Phone:

Lab PM:  
Whitmore, Cheyenne R

E-Mail:  
cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s):

COOC No:

Page:

Job #:

**Analysis Requested**

Field Filtered Sample (Yes or No)	
TDS - SM 2540C ; Cl <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> - EPA 300	X
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	X
Radium 226 & 228 - SW-846 9315 & 9320	X
Metals State Permit (EPA 6020)	X
Cu, Ni, Sb, Ag, V, Zn	X

Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water, B=oil, BT=Tissue, A=Air)	Preservation Code	Special Instructions/Note:
2/1/17	0955	G	W		Extra radiological bottle collected for lab
2/1/17	1035	G	W		QA/QC
2/1/17	1145	G	W		
2/1/17	1245	G	W		
2/1/17	1345	G	W		
2/1/17	1405	G	W		
2/1/17	1435	G	W		
2/1/17	--	G	W		

Field Filtered Sample (Yes or No)	
TDS - SM 2540C ; Cl <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> - EPA 300	X
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	X
Radium 226 & 228 - SW-846 9315 & 9320	X
Metals State Permit (EPA 6020)	X
Cu, Ni, Sb, Ag, V, Zn	X

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: 2/2/17 1140 Company  
**Relinquished by:** \_\_\_\_\_ Date: 2/2/17 1600 Company  
**Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_ Company  
 Cooler Temperature(s) °C and Other Remarks: 5.9, 4.1, 0.2



**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
Client Contact:  
Joju Abraham

Sampler:  
C. Hurdle & J. Morrison Jr

Lab PM:  
Whitmore, Cheyenne R

Phone:  
E-Mail:  
cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s)

COOC No:

Page:  
Job #

Company:  
Southern Company

Due Date Requested:  
TAT Requested (days):

PO #:  
WO #:

Project #:  
SSOW#:

Address:  
241 Ralph McGill Blvd SE B10185

City:  
Atlanta

State:  
Zip:  
GA, 30308

Phone:  
404-506-7239

Email:  
JAbraham@southernco.com

Project Name:  
Plant Wansley - Gypsum Landfill

Site:  
CCR & State Permit

Field Filtered Sample (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=waste/oil, BT=BIOM, A=AIR)	Analysis Requested		Special Instructions/Note:
					Analysis Requested	Analysis Requested	
GWC-21	2/2/17	0940	G	W	<input checked="" type="checkbox"/> Metals - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470	<input checked="" type="checkbox"/> Metals State Permit (EPA 6020)	
FB-3	2/2/17	0945	G	W	<input checked="" type="checkbox"/> TDS - SM 2640C ; Cl, F, SO4 - EPA 300	<input checked="" type="checkbox"/> Radium 226 & 228 - SW-846 9315 & 9320	
GWC-19	2/2/17	1020	G	W	<input checked="" type="checkbox"/> Cu, Ni, Sb, Ag, V, Zn		
GWC-20	2/2/17	1335	G	W			

Preservation Codes:	Total Number of Containers
A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NH4SO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	3

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	Archive For	Months
<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab	

**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: *Coyne Unwiler* Date: 2-3-17 1405 Company: \_\_\_\_\_

Relinquished by: *[Signature]* Date: 2/3/17 1600 Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Δ No  Δ No

Custody Seal No.: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 0.0°C FEB-2



**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
Client Contact:  
Joju Abraham  
Southern Company

Sampler:  
C. Hurdie et. J. Morrison JR

Lab Piv:  
Whitmore, Cheyenne R

Carrier Tracking No(s):

E-Mail:  
cheyenne.whitmore@testamericainc.com

COC No:

Page:

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**

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470  
Radium 226 & 228 - SW-846 9315 & 9320  
Metals State Permit (EPA 6020)  
Cu, Ni, Sb, Ag, V, Zn

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 - H2SO4  
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 (Water, Solid, Gas, Soil, Sludge, etc)	Preservation Code	Field Filtered Sample (Yes or No)	Metals (Part 257 Appendix III & IV) EPA 6020 & EPA 7470			Radium 226 & 228 - SW-846 9315 & 9320	Metals State Permit (EPA 6020)	Cu, Ni, Sb, Ag, V, Zn	Total Number of Containers	Special Instructions/Note:
							A	B	D					
GWC-24	2/3/17	0910	G	W		X	X	X	X	X	X	2	Insufficient Volume for Radium Sample	
GWC-23	2/3/17	1015	G	W		X	X	X	X	X	X	3		
GWC-22	2/3/17	1050	G	W		X	X	X	X	X	X	3		

**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: *Camp Wudely* Date/Time: 2-3-17 1405 Company: \_\_\_\_\_  
 Relinquished by: *[Signature]* Date/Time: 2/3/17 1600 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements:  
 Method of Shipment:  
 Received by: *[Signature]* Date/Time: 2/3/17 1405 Company: \_\_\_\_\_  
 Received by: *[Signature]* Date/Time: 2/3/17 0824 Company: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks:

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133486-1  
SDG Number: Gypsum Landfill

**Login Number: 133486**

**List Number: 1**

**Creator: Perez, Trina M**

**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	5.9°C, 4.1°C, 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 Wansley

TestAmerica Job ID: 400-133486-1  
SDG: Gypsum Landfill

## 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: 400-133486-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

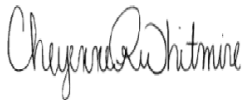
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/14/2017 3:00:28 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

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**Job ID: 400-133486-2**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative  
400-133486-2**

**RAD**

Method(s) Ra226\_Ra228: Ra226 + Ra-228 Combined Batch 160-296422: The following sample has a result above the 3-sigma limit based on historical results. GWC-12 (400-133486-3)

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133486-1	GWC-9	Water	01/31/17 11:00	02/03/17 12:52
400-133486-2	FERB-2	Water	01/31/17 11:35	02/03/17 12:52
400-133486-3	GWC-12	Water	01/31/17 11:45	02/03/17 12:52
400-133486-4	GWC-11	Water	01/31/17 14:30	02/03/17 12:52
400-133486-5	GWC-13	Water	01/31/17 14:30	02/03/17 12:52
400-133486-6	GWC-15	Water	02/01/17 09:55	02/03/17 12:52
400-133486-7	GWC-10	Water	02/01/17 10:35	02/03/17 12:52
400-133486-8	GWC-16	Water	02/01/17 11:45	02/03/17 12:52
400-133486-9	GWC-14	Water	02/01/17 12:45	02/03/17 12:52
400-133486-10	GWC-17	Water	02/01/17 13:45	02/03/17 12:52
400-133486-11	GWC-18	Water	02/01/17 14:05	02/03/17 12:52
400-133486-12	FERB-3	Water	02/01/17 14:35	02/03/17 12:52
400-133486-13	DUP-3	Water	02/01/17 00:00	02/03/17 12:52
400-133486-14	GWC-21	Water	02/02/17 09:40	02/04/17 08:24
400-133486-15	FB-3	Water	02/02/17 09:45	02/04/17 08:24
400-133486-16	GWC-19	Water	02/02/17 10:20	02/04/17 08:24
400-133486-17	GWC-20	Water	02/02/17 13:35	02/04/17 08:24
400-133486-19	GWC-23	Water	02/03/17 10:15	02/04/17 08:24
400-133486-20	GWC-22	Water	02/03/17 10:50	02/04/17 08:24

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 01/31/17 11:00**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.143	U	0.113	0.113	1.00	0.164	pCi/L	02/10/17 10:37	03/06/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					02/10/17 10:37	03/06/17 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	0.548		0.271	0.276	1.00	0.393	pCi/L	02/10/17 11:17	03/02/17 10:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					02/10/17 11:17	03/02/17 10:37	1
Y Carrier	91.6		40 - 110					02/10/17 11:17	03/02/17 10:37	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	0.690		0.294	0.298	5.00	0.393	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**  
**Date Collected: 01/31/17 11:35**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0563	U	0.0916	0.0917	1.00	0.159	pCi/L	02/10/17 10:37	03/06/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/10/17 10:37	03/06/17 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	0.440		0.276	0.279	1.00	0.425	pCi/L	02/10/17 11:17	03/02/17 10:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					02/10/17 11:17	03/02/17 10:37	1
Y Carrier	83.7		40 - 110					02/10/17 11:17	03/02/17 10:37	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	0.497		0.290	0.293	5.00	0.425	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-133486-3**

**Date Collected: 01/31/17 11:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.21		0.368	0.418	1.00	0.185	pCi/L	02/10/17 10:37	03/06/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.7		40 - 110					02/10/17 10:37	03/06/17 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	5.13		0.646	0.800	1.00	0.540	pCi/L	02/10/17 11:17	03/02/17 10:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.7		40 - 110					02/10/17 11:17	03/02/17 10:37	1
Y Carrier	85.6		40 - 110					02/10/17 11:17	03/02/17 10:37	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	7.33		0.743	0.902	5.00	0.540	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-133486-4**

Date Collected: 01/31/17 14:30

Matrix: Water

Date Received: 02/03/17 12:52

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.203		0.127	0.128	1.00	0.170	pCi/L	02/10/17 10:37	03/06/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					02/10/17 10:37	03/06/17 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	0.433		0.273	0.276	1.00	0.418	pCi/L	02/10/17 11:17	03/02/17 10:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					02/10/17 11:17	03/02/17 10:37	1
Y Carrier	83.7		40 - 110					02/10/17 11:17	03/02/17 10:37	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.636		0.301	0.305	5.00	0.418	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-13**  
**Date Collected: 01/31/17 14:30**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-5**  
**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	0.129	U	0.0964	0.0971	1.00	0.134	pCi/L	02/10/17 10:37	03/06/17 06:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/10/17 10:37	03/06/17 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	0.401		0.240	0.242	1.00	0.363	pCi/L	02/10/17 11:17	03/02/17 10:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/10/17 11:17	03/02/17 10:37	1
Y Carrier	90.1		40 - 110					02/10/17 11:17	03/02/17 10:37	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		0.258	0.261	5.00	0.363	pCi/L		03/07/17 13:31	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-133486-6**

**Date Collected: 02/01/17 09:55**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0553	U	0.0907	0.0908	1.00	0.158	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.1		40 - 110					02/10/17 10:37	03/06/17 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	0.302	U	0.238	0.240	1.00	0.376	pCi/L	02/10/17 11:17	03/02/17 10:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.1		40 - 110					02/10/17 11:17	03/02/17 10:37	1
Y Carrier	91.6		40 - 110					02/10/17 11:17	03/02/17 10:37	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	0.357	U	0.255	0.256	5.00	0.376	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**  
**Date Collected: 02/01/17 10:35**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-7**  
**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	0.826		0.220	0.232	1.00	0.173	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					02/10/17 10:37	03/06/17 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	3.82		0.514	0.622	1.00	0.506	pCi/L	02/10/17 11:17	03/02/17 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					02/10/17 11:17	03/02/17 10:38	1
Y Carrier	83.4		40 - 110					02/10/17 11:17	03/02/17 10:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.64		0.559	0.664	5.00	0.506	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-133486-8**

**Date Collected: 02/01/17 11:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0661	U	0.0810	0.0812	1.00	0.133	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/10/17 10:37	03/06/17 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	0.0746	U	0.251	0.251	1.00	0.436	pCi/L	02/10/17 11:17	03/02/17 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					02/10/17 11:17	03/02/17 10:38	1
Y Carrier	83.7		40 - 110					02/10/17 11:17	03/02/17 10:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.141	U	0.264	0.264	5.00	0.436	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Date Collected: 02/01/17 12:45**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-9**

**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	0.278		0.139	0.141	1.00	0.174	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/10/17 10:37	03/06/17 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	0.159	U	0.249	0.250	1.00	0.419	pCi/L	02/10/17 11:17	03/02/17 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/10/17 11:17	03/02/17 10:38	1
Y Carrier	86.7		40 - 110					02/10/17 11:17	03/02/17 10:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.437		0.285	0.287	5.00	0.419	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**

**Date Collected: 02/01/17 13:45**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-10**

**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	0.142	U	0.110	0.111	1.00	0.161	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					02/10/17 10:37	03/06/17 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	0.278	U	0.260	0.262	1.00	0.420	pCi/L	02/10/17 11:17	03/02/17 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					02/10/17 11:17	03/02/17 10:38	1
Y Carrier	82.6		40 - 110					02/10/17 11:17	03/02/17 10:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.420</b>		0.283	0.284	5.00	0.420	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**

**Date Collected: 02/01/17 14:05**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-11**

**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	0.0352	U	0.0773	0.0774	1.00	0.142	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					02/10/17 10:37	03/06/17 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	0.172	U	0.265	0.265	1.00	0.445	pCi/L	02/10/17 11:17	03/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					02/10/17 11:17	03/02/17 10:39	1
Y Carrier	84.9		40 - 110					02/10/17 11:17	03/02/17 10:39	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	0.207	U	0.276	0.276	5.00	0.445	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**  
**Date Collected: 02/01/17 14:35**  
**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-12**  
**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	0.0455	U	0.0819	0.0820	1.00	0.145	pCi/L	02/10/17 10:37	03/06/17 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/10/17 10:37	03/06/17 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	0.130	U	0.226	0.226	1.00	0.383	pCi/L	02/10/17 11:17	03/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/10/17 11:17	03/02/17 10:39	1
Y Carrier	86.0		40 - 110					02/10/17 11:17	03/02/17 10:39	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	0.176	U	0.240	0.240	5.00	0.383	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-133486-13**

**Date Collected: 02/01/17 00:00**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0738	U	0.102	0.102	1.00	0.171	pCi/L	02/10/17 10:37	03/06/17 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/10/17 10:37	03/06/17 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	0.0874	U	0.228	0.228	1.00	0.394	pCi/L	02/10/17 11:17	03/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/10/17 11:17	03/02/17 10:39	1
Y Carrier	86.0		40 - 110					02/10/17 11:17	03/02/17 10:39	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	0.161	U	0.250	0.250	5.00	0.394	pCi/L		03/07/17 13:31	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**

**Date Collected: 02/02/17 09:40**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-14**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0850	U	0.150	0.150	1.00	0.348	pCi/L	02/13/17 11:24	03/07/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					02/13/17 11:24	03/07/17 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	0.104	U	0.251	0.251	1.00	0.429	pCi/L	02/13/17 12:05	03/06/17 14:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					02/13/17 12:05	03/06/17 14:13	1
Y Carrier	95.3		40 - 110					02/13/17 12:05	03/06/17 14:13	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	0.0190	U	0.293	0.293	5.00	0.429	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 02/02/17 09:45**  
**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-15**  
**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	0.0857	U	0.156	0.156	1.00	0.278	pCi/L	02/13/17 11:24	03/07/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/13/17 11:24	03/07/17 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	0.177	U	0.208	0.209	1.00	0.343	pCi/L	02/13/17 12:05	03/06/17 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/13/17 12:05	03/06/17 14:12	1
Y Carrier	89.7		40 - 110					02/13/17 12:05	03/06/17 14:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.263	U	0.260	0.261	5.00	0.343	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Date Collected: 02/02/17 10:20**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-16**

**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	0.0571	U	0.165	0.165	1.00	0.310	pCi/L	02/13/17 11:24	03/07/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					02/13/17 11:24	03/07/17 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	0.0525	U	0.231	0.231	1.00	0.405	pCi/L	02/13/17 12:05	03/06/17 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					02/13/17 12:05	03/06/17 14:12	1
Y Carrier	89.3		40 - 110					02/13/17 12:05	03/06/17 14:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.110	U	0.283	0.283	5.00	0.405	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-20**  
**Date Collected: 02/02/17 13:35**  
**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-17**  
**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	0.173	U	0.175	0.176	1.00	0.271	pCi/L	02/13/17 11:24	03/07/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					02/13/17 11:24	03/07/17 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	0.114	U	0.206	0.206	1.00	0.350	pCi/L	02/13/17 12:05	03/06/17 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					02/13/17 12:05	03/06/17 14:12	1
Y Carrier	93.5		40 - 110					02/13/17 12:05	03/06/17 14:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.287	U	0.270	0.271	5.00	0.350	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 02/03/17 10:15**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-19**

**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	-0.0121	U	0.153	0.153	1.00	0.318	pCi/L	02/13/17 11:24	03/07/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/13/17 11:24	03/07/17 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	0.0774	U	0.214	0.214	1.00	0.369	pCi/L	02/13/17 12:05	03/06/17 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/13/17 12:05	03/06/17 14:12	1
Y Carrier	93.5		40 - 110					02/13/17 12:05	03/06/17 14:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0653	U	0.263	0.263	5.00	0.369	pCi/L		03/07/17 13:31	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**

**Date Collected: 02/03/17 10:50**

**Date Received: 02/04/17 08:24**

**Lab Sample ID: 400-133486-20**

**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	-0.0195	U	0.136	0.136	1.00	0.292	pCi/L	02/13/17 11:24	03/07/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/13/17 11:24	03/07/17 06:01	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.105	U	0.221	0.221	1.00	0.378	pCi/L	02/13/17 12:05	03/06/17 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/13/17 12:05	03/06/17 14:12	1
Y Carrier	94.2		40 - 110					02/13/17 12:05	03/06/17 14:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0853	U	0.260	0.260	5.00	0.378	pCi/L		03/07/17 13:31	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**

**Date Collected: 01/31/17 11:00**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: FERB-2**

**Date Collected: 01/31/17 11:35**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-12**

**Date Collected: 01/31/17 11:45**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-11**

**Date Collected: 01/31/17 14:30**

**Date Received: 02/03/17 12:52**

**Lab Sample ID: 400-133486-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-133486-5**

**Date Collected: 01/31/17 14:30**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:41	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-133486-6**

**Date Collected: 02/01/17 09:55**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-133486-7**

**Date Collected: 02/01/17 10:35**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-133486-8**

**Date Collected: 02/01/17 11:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-133486-9**

**Date Collected: 02/01/17 12:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-133486-10**

**Date Collected: 02/01/17 13:45**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-133486-11**

**Date Collected: 02/01/17 14:05**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-133486-12**

**Date Collected: 02/01/17 14:35**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:42	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-133486-13**

**Date Collected: 02/01/17 00:00**

**Matrix: Water**

**Date Received: 02/03/17 12:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			291920	02/10/17 10:37	MBC	TAL SL
Total/NA	Analysis	9315		1	296097	03/06/17 06:43	ALD	TAL SL
Total/NA	Prep	PrecSep_0			291931	02/10/17 11:17	MBC	TAL SL
Total/NA	Analysis	9320		1	295688	03/02/17 10:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-133486-14**

**Date Collected: 02/02/17 09:40**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292028	02/13/17 11:24	MBC	TAL SL
Total/NA	Analysis	9315		1	296226	03/07/17 06:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			292032	02/13/17 12:05	MBC	TAL SL
Total/NA	Analysis	9320		1	296097	03/06/17 14:13	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: FB-3**

**Lab Sample ID: 400-133486-15**

**Date Collected: 02/02/17 09:45**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292028	02/13/17 11:24	MBC	TAL SL
Total/NA	Analysis	9315		1	296226	03/07/17 06:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			292032	02/13/17 12:05	MBC	TAL SL
Total/NA	Analysis	9320		1	296097	03/06/17 14:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-133486-16**

**Date Collected: 02/02/17 10:20**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292028	02/13/17 11:24	MBC	TAL SL
Total/NA	Analysis	9315		1	296226	03/07/17 06:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			292032	02/13/17 12:05	MBC	TAL SL
Total/NA	Analysis	9320		1	296097	03/06/17 14:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-133486-17**

**Date Collected: 02/02/17 13:35**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292028	02/13/17 11:24	MBC	TAL SL
Total/NA	Analysis	9315		1	296226	03/07/17 06:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			292032	02/13/17 12:05	MBC	TAL SL
Total/NA	Analysis	9320		1	296097	03/06/17 14:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-133486-19**

**Date Collected: 02/03/17 10:15**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292028	02/13/17 11:24	MBC	TAL SL
Total/NA	Analysis	9315		1	296226	03/07/17 06:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			292032	02/13/17 12:05	MBC	TAL SL
Total/NA	Analysis	9320		1	296097	03/06/17 14:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	RTM	TAL SL

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-133486-20**

**Date Collected: 02/03/17 10:50**

**Matrix: Water**

**Date Received: 02/04/17 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292028	02/13/17 11:24	MBC	TAL SL
Total/NA	Analysis	9315		1	296226	03/07/17 06:01	MLK	TAL SL
Total/NA	Prep	PrecSep_0			292032	02/13/17 12:05	MBC	TAL SL
Total/NA	Analysis	9320		1	296097	03/06/17 14:12	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296422	03/07/17 13:31	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 Wansley

TestAmerica Job ID: 400-133486-2  
 SDG: Gypsum Landfill

## Rad

### Prep Batch: 291920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total/NA	Water	PrecSep-21	
400-133486-2	FERB-2	Total/NA	Water	PrecSep-21	
400-133486-3	GWC-12	Total/NA	Water	PrecSep-21	
400-133486-4	GWC-11	Total/NA	Water	PrecSep-21	
400-133486-5	GWC-13	Total/NA	Water	PrecSep-21	
400-133486-6	GWC-15	Total/NA	Water	PrecSep-21	
400-133486-7	GWC-10	Total/NA	Water	PrecSep-21	
400-133486-8	GWC-16	Total/NA	Water	PrecSep-21	
400-133486-9	GWC-14	Total/NA	Water	PrecSep-21	
400-133486-10	GWC-17	Total/NA	Water	PrecSep-21	
400-133486-11	GWC-18	Total/NA	Water	PrecSep-21	
400-133486-12	FERB-3	Total/NA	Water	PrecSep-21	
400-133486-13	DUP-3	Total/NA	Water	PrecSep-21	
MB 160-291920/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-291920/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133486-6 DU	GWC-15	Total/NA	Water	PrecSep-21	

### Prep Batch: 291931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-1	GWC-9	Total/NA	Water	PrecSep_0	
400-133486-2	FERB-2	Total/NA	Water	PrecSep_0	
400-133486-3	GWC-12	Total/NA	Water	PrecSep_0	
400-133486-4	GWC-11	Total/NA	Water	PrecSep_0	
400-133486-5	GWC-13	Total/NA	Water	PrecSep_0	
400-133486-6	GWC-15	Total/NA	Water	PrecSep_0	
400-133486-7	GWC-10	Total/NA	Water	PrecSep_0	
400-133486-8	GWC-16	Total/NA	Water	PrecSep_0	
400-133486-9	GWC-14	Total/NA	Water	PrecSep_0	
400-133486-10	GWC-17	Total/NA	Water	PrecSep_0	
400-133486-11	GWC-18	Total/NA	Water	PrecSep_0	
400-133486-12	FERB-3	Total/NA	Water	PrecSep_0	
400-133486-13	DUP-3	Total/NA	Water	PrecSep_0	
MB 160-291931/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-291931/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-133486-6 DU	GWC-15	Total/NA	Water	PrecSep_0	

### Prep Batch: 292028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-14	GWC-21	Total/NA	Water	PrecSep-21	
400-133486-15	FB-3	Total/NA	Water	PrecSep-21	
400-133486-16	GWC-19	Total/NA	Water	PrecSep-21	
400-133486-17	GWC-20	Total/NA	Water	PrecSep-21	
400-133486-19	GWC-23	Total/NA	Water	PrecSep-21	
400-133486-20	GWC-22	Total/NA	Water	PrecSep-21	
MB 160-292028/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-292028/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
440-175840-G-1-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
440-175840-G-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

## Rad (Continued)

### Prep Batch: 292032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133486-14	GWC-21	Total/NA	Water	PrecSep_0	
400-133486-15	FB-3	Total/NA	Water	PrecSep_0	
400-133486-16	GWC-19	Total/NA	Water	PrecSep_0	
400-133486-17	GWC-20	Total/NA	Water	PrecSep_0	
400-133486-19	GWC-23	Total/NA	Water	PrecSep_0	
400-133486-20	GWC-22	Total/NA	Water	PrecSep_0	
MB 160-292032/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-292032/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
440-175840-G-1-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
440-175840-G-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-291920/1-A**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 291920**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05490	U	0.0723	0.0725	1.00	0.173	pCi/L	02/10/17 10:37	03/06/17 06:41	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					02/10/17 10:37	03/06/17 06:41	1

**Lab Sample ID: LCS 160-291920/2-A**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 291920**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	11.60		1.27	1.00	0.178	pCi/L	103	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	79.9		40 - 110						

**Lab Sample ID: 400-133486-6 DU**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: GWC-15**  
**Prep Type: Total/NA**  
**Prep Batch: 291920**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0553	U	0.000982	U	0.0683	1.00	0.141	pCi/L	0.34	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	93.5		40 - 110							

**Lab Sample ID: MB 160-292028/1-A**  
**Matrix: Water**  
**Analysis Batch: 296226**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 292028**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09280	U	0.162	0.162	1.00	0.285	pCi/L	02/13/17 11:24	03/07/17 06:00	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					02/13/17 11:24	03/07/17 06:00	1

**Lab Sample ID: LCS 160-292028/2-A**  
**Matrix: Water**  
**Analysis Batch: 296226**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 292028**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	10.97		1.36	1.00	0.265	pCi/L	97	68 - 137

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-292028/2-A**  
**Matrix: Water**  
**Analysis Batch: 296226**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 292028**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.9		40 - 110

**Lab Sample ID: 440-175840-G-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 296226**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 292028**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.110	U	11.3	10.98		1.43	1.00	0.316	pCi/L	97	75 - 138		
Carrier	MS %Yield	MS Qualifier	Limits										
Ba Carrier	70.8		40 - 110										

**Lab Sample ID: 440-175840-G-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 296226**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 292028**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
Radium-226	0.110	U	11.3	11.35		1.46	1.00	0.326	pCi/L	101	75 - 138	0.13	1	
Carrier	MSD %Yield	MSD Qualifier	Limits											
Ba Carrier	72.0		40 - 110											

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

**Lab Sample ID: MB 160-291931/1-A**  
**Matrix: Water**  
**Analysis Batch: 295688**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 291931**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac
Radium-228	0.4451		0.249	0.252	1.00	0.374	pCi/L	02/10/17 11:17	03/02/17 10:37			1
Carrier	MB %Yield	MB Qualifier	Limits									
Ba Carrier	87.0		40 - 110									
Y Carrier	89.7		40 - 110									
								02/10/17 11:17	03/02/17 10:37			1

**Lab Sample ID: LCS 160-291931/2-A**  
**Matrix: Water**  
**Analysis Batch: 295688**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 291931**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	13.8	17.70		1.88	1.00	0.387	pCi/L	128	56 - 140	

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-291931/2-A**  
**Matrix: Water**  
**Analysis Batch: 295688**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 291931**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	79.9		40 - 110
Y Carrier	89.3		40 - 110

**Lab Sample ID: 400-133486-6 DU**  
**Matrix: Water**  
**Analysis Batch: 295688**

**Client Sample ID: GWC-15**  
**Prep Type: Total/NA**  
**Prep Batch: 291931**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.302	U	0.1522	U	0.235	1.00	0.394	pCi/L	0.32	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	93.5		40 - 110
Y Carrier	85.2		40 - 110

**Lab Sample ID: MB 160-292032/1-A**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 292032**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1981	U	0.244	0.245	1.00	0.404	pCi/L	02/13/17 12:05	03/06/17 14:13	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110	02/13/17 12:05	03/06/17 14:13	1
Y Carrier	87.1		40 - 110	02/13/17 12:05	03/06/17 14:13	1

**Lab Sample ID: LCS 160-292032/2-A**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 292032**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	14.29		1.52	1.00	0.344	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.9		40 - 110
Y Carrier	96.1		40 - 110

**Lab Sample ID: 440-175840-G-1-C MS**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 292032**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.00442	U	13.8	15.32		1.69	1.00	0.503	pCi/L	111	45 - 150

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
 SDG: Gypsum Landfill

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

**Lab Sample ID: 440-175840-G-1-C MS**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 292032**

	<i>MS</i>	<i>MS</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	70.8		40 - 110
Y Carrier	92.3		40 - 110

**Lab Sample ID: 440-175840-G-1-D MSD**  
**Matrix: Water**  
**Analysis Batch: 296097**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 292032**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qual</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qual</i>	<i>Total Uncert. (2σ+/-)</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec. Limits</i>		<i>RER</i>	<i>RER Limit</i>
Radium-228	0.00442	U	13.7	15.21	U	1.67	1.00	0.504	pCi/L	111	45 - 150	0.03	1	

	<i>MSD</i>	<i>MSD</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	72.0		40 - 110
Y Carrier	92.0		40 - 110

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

**Lab Sample ID: 400-133486-6 DU**  
**Matrix: Water**  
**Analysis Batch: 296422**

**Client Sample ID: GWC-15**  
**Prep Type: Total/NA**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qual</i>	<i>DU Result</i>	<i>DU Qual</i>	<i>Total Uncert. (2σ+/-)</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>RER</i>	<i>RER Limit</i>

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2871

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact: Jojo 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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

Lab Pl#: Whitmire, Cheyenne R  
 E-Mail: cheyenne.whitmire@testamericainc.com  
 Carrier Tracking No(s):  
 Job #: 400-133486 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, T=tissue, A=air)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Performance (Yes or No)		
GWC-9	1/31/17	1100	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
FEB-2	1/31/17	1135	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-12	1/31/17	1145	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-11	1/31/17	1430	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-13	1/31/17	1430	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: 2/1/17 / 1140  
 Relinquished by: \_\_\_\_\_ Date/Time: 2/3/17 / 1600  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Company: Southern Company  
 Date/Time: 2/1/17 / 1140  
 Date/Time: 2-3-17 / 1600  
 Date/Time: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 5.9°C, 4.1°C, 0.0°C, 2.2°C



**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
Client Contact: Joju Abraham  
Company: Southern Company  
Address: 241 Ralph McGill Blvd SE B10185  
City: Atlanta  
State: GA, Zip: 30308  
Phone: 404-506-7239  
Email: JAbraham@southernco.com  
Project Name: Plant Wansley - Gypsum Landfill  
Site: CCR & State Permit

**Sampler:** C. Hurdle & J. Morrison Jr  
**Lab PM:** Whitmire, Cheyenne R  
**Carrier Tracking No(s):**  
**Page:**  
**Job #:**  
**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water, B=oil, BT=Tissue, A=Air)	Analysis Requested										Special Instructions/Note:
					TDS - SM 2540C; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Metals State Permit (EPA 6020)	Cu, Ni, Pb, Ag, V, Zn	Field Filtered Sample (Yes or No)	Preservation Code	Preservation Code	Preservation Code	Preservation Code	
GWC-15	2/1/17	0955	G	W	X	X	X	X	X	X	X	X	X	X	Extra radiological bottle collected for lab QA/QC
GWC-10	2/1/17	1035	G	W	X	X	X	X	X	X	X	X	X	X	
GWC-16	2/1/17	1145	G	W	X	X	X	X	X	X	X	X	X	X	
GWC-14	2/1/17	1245	G	W	X	X	X	X	X	X	X	X	X	X	
GWC-17	2/1/17	1345	G	W	X	X	X	X	X	X	X	X	X	X	
GWC-18	2/1/17	1405	G	W	X	X	X	X	X	X	X	X	X	X	
FERB-3	2/1/17	1435	G	W	X	X	X	X	X	X	X	X	X	X	
DUP-3	2/1/17	--	G	W	X	X	X	X	X	X	X	X	X	X	

**Possible Hazard Identification**  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological

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

**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: 2/1/17 Time: 1140  
 Relinquished by: \_\_\_\_\_ Date: 2/2/17 Time: 1600  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Relinquished by:** \_\_\_\_\_ Date: 2/2/17 Time: 1140  
 Relinquished by: \_\_\_\_\_ Date: 2/3/17 Time: 0552  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Custody Seal No.:** \_\_\_\_\_  
 Δ Yes Δ No  
 Cooler Temperature(s) °C and Other Remarks: 5.9, 4.1, 0.6 #A-2



**Chain of Custody Record**

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 Client Contact: Joju Abraham  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State: GA, Zip: 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

**Sampler:** C. Hurdle Gt, J. Morrison Jr  
**Lab PM:** Whitmire, Cheyenne R  
**Carrier Tracking No(s):**  
**Job #:**  
**Preservation Codes:**  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - H<sub>2</sub>SO<sub>4</sub>  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 L - EDA  
 Other:  
 M - Hexane  
 N - None  
 O - AsNaO<sub>2</sub>  
 P - Na<sub>2</sub>O<sub>4</sub>S  
 Q - Na<sub>2</sub>SO<sub>3</sub>  
 R - Na<sub>2</sub>SO<sub>3</sub>  
 S - H<sub>2</sub>SO<sub>4</sub>  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 L - EDA  
 Other:

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=BIOM, A=AIR)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Formaldehyde (Yes or No)		
GWC-21	2/2/17	0940	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
FB-3	2/2/17	0945	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-19	2/2/17	1020	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
GWC-20	2/2/17	1335	G	W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	

**Possible Hazard Identification**  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: *Coyne Unwiler* Date: 2-3-17 1405 Company: *JA*  
 Relinquished by: *JA* Date: 2/3/17 1600 Company: *JA*  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C FEB-2



**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**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:  
Plant Wansley - Gypsum Landfill  
Site:  
CCR & State Permit

Sampler:  
C. Hurdis et. J. Morrison JR  
Phone:  
Whitnirre, Cheyenne R  
E-Mail:  
cheyenne.whitnirre@testamericainc.com

Carrier Tracking No(s):  
Lab Piv:  
Whitnirre, Cheyenne R  
E-Mail:  
cheyenne.whitnirre@testamericainc.com

Due Date Requested:  
TAT Requested (days):  
PO #:  
WO #:  
Project #:  
SSOW#:

**Analysis Requested**

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	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	
Radum 226 & 228 - SW-846 9315 & 9320																											
Metals State Permit (EPA 6020)																											
Cu, Ni, Sb, Ag, V, Zn																											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Gas, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radum 226 & 228 - SW-846 9315 & 9320		Metals State Permit (EPA 6020)		Cu, Ni, Sb, Ag, V, Zn		Total Number of Containers	Special Instructions/Note:										
						Yes	No	A	B	C	D	E	F	G	H			I	J	K	L	M	N	O	P	Q	R
GWC-24	2/3/17	0910	G	W		X		X	X	X	X	X	X	X	X	2	Insufficient Volume for Radium Sample										
GWC-23	2/3/17	1015	G	W		X		X	X	X	X	X	X	X	X	3											
GWC-22	2/3/17	1050	G	W		X		X	X	X	X	X	X	X	X	3											

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: *Camp Wansley* Date: 2-3-17 1405 Company: \_\_\_\_\_  
 Relinquished by: *[Signature]* Date: 2/3/17 1600 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seal No.: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks:



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133486-2

SDG Number: Gypsum Landfill

**Login Number: 133486**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	5.9°C, 4.1°C, 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 Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

## 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.



# Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133486-2  
SDG: Gypsum Landfill

## 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

# 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: 400-133799-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/14/2017 3:22:18 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://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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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133799-1	GWC-24	Water	02/08/17 08:40	02/10/17 08:52
400-133799-2	GWC-31	Water	02/08/17 09:20	02/10/17 08:52

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-24**  
**Date Collected: 02/08/17 08:40**  
**Date Received: 02/10/17 08:52**

**Lab Sample ID: 400-133799-1**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.122	U	0.0924	0.0930	1.00	0.129	pCi/L	02/14/17 10:42	03/08/17 06:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/14/17 10:42	03/08/17 06:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.489		0.289	0.293	1.00	0.442	pCi/L	02/14/17 11:26	03/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/14/17 11:26	03/03/17 10:59	1
Y Carrier	90.1		40 - 110					02/14/17 11:26	03/03/17 10:59	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	0.610		0.304	0.307	5.00	0.442	pCi/L		03/09/17 12:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-31**

**Date Collected: 02/08/17 09:20**

**Date Received: 02/10/17 08:52**

**Lab Sample ID: 400-133799-2**

**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0953	U	0.101	0.101	1.00	0.161	pCi/L	02/14/17 10:42	03/08/17 06:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		40 - 110					02/14/17 10:42	03/08/17 06:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.315	U	0.318	0.319	1.00	0.518	pCi/L	02/14/17 11:26	03/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.2		40 - 110					02/14/17 11:26	03/03/17 10:59	1
Y Carrier	83.0		40 - 110					02/14/17 11:26	03/03/17 10:59	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	0.411	U	0.334	0.335	5.00	0.518	pCi/L		03/09/17 12:02	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Date Collected: 02/08/17 08:40**

**Date Received: 02/10/17 08:52**

**Lab Sample ID: 400-133799-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292265	02/14/17 10:42	PJM	TAL SL
Total/NA	Analysis	9315		1	296604	03/08/17 06:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292279	02/14/17 11:26	PJM	TAL SL
Total/NA	Analysis	9320		1	295725	03/03/17 10:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	RTM	TAL SL

**Client Sample ID: GWC-31**

**Date Collected: 02/08/17 09:20**

**Date Received: 02/10/17 08:52**

**Lab Sample ID: 400-133799-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			292265	02/14/17 10:42	PJM	TAL SL
Total/NA	Analysis	9315		1	296604	03/08/17 06:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			292279	02/14/17 11:26	PJM	TAL SL
Total/NA	Analysis	9320		1	295725	03/03/17 10:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	296901	03/09/17 12:02	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 Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 292265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133799-1	GWC-24	Total/NA	Water	PrecSep-21	
400-133799-2	GWC-31	Total/NA	Water	PrecSep-21	
MB 160-292265/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-292265/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
600-143540-C-2-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
600-143540-D-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 292279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133799-1	GWC-24	Total/NA	Water	PrecSep_0	
400-133799-2	GWC-31	Total/NA	Water	PrecSep_0	
MB 160-292279/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-292279/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
600-143540-C-2-F MS	Matrix Spike	Total/NA	Water	PrecSep_0	
600-143540-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-292265/1-A**  
**Matrix: Water**  
**Analysis Batch: 296604**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 292265**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03328	U	0.0860	0.0861	1.00	0.157	pCi/L	02/14/17 10:42	03/08/17 06:30	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					02/14/17 10:42	03/08/17 06:30	1

**Lab Sample ID: LCS 160-292265/2-A**  
**Matrix: Water**  
**Analysis Batch: 296604**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 292265**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	9.849		1.08	1.00	0.147	pCi/L	87	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.6		40 - 110						

**Lab Sample ID: 600-143540-C-2-B MS**  
**Matrix: Water**  
**Analysis Batch: 296604**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 292265**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.587		11.2	10.28		1.12	1.00	0.156	pCi/L	86	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	86.7		40 - 110								

**Lab Sample ID: 600-143540-D-2-A MSD**  
**Matrix: Water**  
**Analysis Batch: 296604**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 292265**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.587		11.3	10.75		1.17	1.00	0.149	pCi/L	90	75 - 138	0.21	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	84.4		40 - 110										

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-292279/1-A**  
**Matrix: Water**  
**Analysis Batch: 295725**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 292279**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1073	U	0.239	0.239	1.00	0.410	pCi/L	02/14/17 11:26	03/03/17 10:58	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					02/14/17 11:26	03/03/17 10:58	1
Y Carrier	87.1		40 - 110					02/14/17 11:26	03/03/17 10:58	1

**Lab Sample ID: LCS 160-292279/2-A**  
**Matrix: Water**  
**Analysis Batch: 295725**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 292279**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.8	15.20		1.64	1.00	0.462	pCi/L	110	56 - 140
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.6		40 - 110						
Y Carrier	85.2		40 - 110						

**Lab Sample ID: 600-143540-C-2-F MS**  
**Matrix: Water**  
**Analysis Batch: 295725**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 292279**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.884		13.8	17.55		1.86	1.00	0.390	pCi/L	121	45 - 150
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	86.7		40 - 110								
Y Carrier	85.2		40 - 110								

**Lab Sample ID: 600-143540-D-2-C MSD**  
**Matrix: Water**  
**Analysis Batch: 295725**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 292279**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.884		13.8	16.68		1.79	1.00	0.392	pCi/L	115	45 - 150	0.24	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	84.4		40 - 110										
Y Carrier	86.4		40 - 110										

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

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

Lab Sample ID: 400-133856-A-8 DU  
Matrix: Water  
Analysis Batch: 296901

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	0.0400	U	0.1677	U	0.218	5.00	0.323	pCi/L	0.28	

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**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: C. Hurdle & T. Payne 276  
 Lab PWT: Whitnrite, Cheyenne R  
 Carrier Tracking No(s):  
 Client Contact: Joju Abraham  
 Phone: cheyenne.whitnrite@testamericainc.com  
 E-Mail: cheyenne.whitnrite@testamericainc.com

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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater)	Field Filtered Sample (Yes or No)	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Metals State Permit (EPA 6020)	Cd, Ni, Sb, Ag, V, Zn	Analysis Requested	Carrier Tracking No(s)	Job #
GWC-24	2/8/17	0840	G	GW	X	TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Radium 226 & 228 - SW-846 9315 & 9320		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	400-133799 COC	
GWC-31	2/8/17	0920	G	GW	X						

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

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

Empty Kit Relinquished by: [Signature] Date: 2/9/17 1430  
 Relinquished by: [Signature] Date: 2/9/17 1600  
 Relinquished by: [Signature] Date: 2/9/17 0852

Company: [Signature] Company: [Signature] Company: [Signature]

Special 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: [Signature] Date: 2/9/17 1430  
 Received by: [Signature] Date: 2/9/17 0852  
 Received by: [Signature] Date: 2/9/17 0852  
 Received by: [Signature] Date: 2/9/17 0852

Cooler Temperature(s) °C and Other Remarks: 3.2°C, DC-2



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-133799-1  
SDG Number: Gypsum CCR & State Permit

**Login Number: 133799**

**List Number: 1**

**Creator: Franklin, Justin H**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	3.2°, IR-2
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").	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 Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-133799-1  
SDG: Gypsum Landfill

## 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: 400-135240-3

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

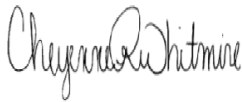
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/27/2017 6:38:19 PM

Cheyenne Whitmire, Project Manager II

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### 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 Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

**Job ID: 400-135240-3**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-135240-3

#### Metals

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: (400-135255-B-2-B ^25). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 347015 recovered above the upper control limit for Lead. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: GWA-29 (400-135240-25) and (400-135255-B-2-B ^5).

Method(s) 6020: The serial dilution performed for the following sample associated with batch 347015 was outside control limits for Chromium: (400-135255-B-2-B SD)

Method(s) 6020: The post digestion spike % recovery for Lead associated with batch 347015 was outside of control limits.

Method(s) 6020: The native sample and post digestion spike associated with preparation batch 346573 and analytical batch 347015 were performed at the same dilution. Due to the additional level of analyte present in the spiked sample, the concentration of Calcium in the PDS was above the instrument calibration range. The data have been reported and qualified.

Method(s) 7470A: The method blank for prep batch 346429 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 Wansley

TestAmerica Job ID: 400-135240-3  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Lab Sample ID: 400-135240-25**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.9		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	6.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.00085	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0020	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	3.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.038		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00014	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	88		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 Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135240-25	GWA-29	Water	03/15/17 14:10	03/17/17 09:01

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**  
**Date Collected: 03/15/17 14:10**  
**Date Received: 03/17/17 09:01**

**Lab Sample ID: 400-135240-25**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			03/18/17 02:59	1
Fluoride	1.9		0.20	0.082	mg/L			03/18/17 02:59	1
Sulfate	6.3		1.0	0.70	mg/L			03/18/17 02:59	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		03/21/17 13:03	03/23/17 13:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 13:58	5
Barium	0.00085	J	0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 13:58	5
Beryllium	0.0020	J	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:58	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 13:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:58	5
Calcium	3.8		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 13:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 13:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 13:58	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 13:58	5
Lithium	0.038		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 13:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 13:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 13:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 13:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00014	J B	0.00020	0.000070	mg/L		03/20/17 12:33	03/23/17 15:13	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	88		5.0	3.4	mg/L			03/20/17 14:06	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

## 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 Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 03/15/17 14:10**

**Date Received: 03/17/17 09:01**

**Lab Sample ID: 400-135240-25**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346204	03/18/17 02:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 13:58	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 12:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346357	03/20/17 14:06	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 Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 346204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total/NA	Water	300.0	
MB 400-346204/28	Method Blank	Total/NA	Water	300.0	
LCS 400-346204/29	Lab Control Sample	Total/NA	Water	300.0	
LCS D 400-346204/30	Lab Control Sample Dup	Total/NA	Water	300.0	
400-135240-A-14 MS	Matrix Spike	Total/NA	Water	300.0	
400-135240-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 346429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total/NA	Water	7470A	
MB 400-346429/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-346429/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135240-B-18-B MS	Matrix Spike	Total/NA	Water	7470A	
400-135240-B-18-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 346573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total Recoverable	Water	3005A	
MB 400-346573/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-346573/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135255-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-135255-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 346931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total/NA	Water	7470A	346429
MB 400-346429/14-A	Method Blank	Total/NA	Water	7470A	346429
LCS 400-346429/15-A	Lab Control Sample	Total/NA	Water	7470A	346429
400-135240-B-18-B MS	Matrix Spike	Total/NA	Water	7470A	346429
400-135240-B-18-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	346429

### Analysis Batch: 347015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total Recoverable	Water	6020	346573
MB 400-346573/1-A ^5	Method Blank	Total Recoverable	Water	6020	346573
LCS 400-346573/2-A	Lab Control Sample	Total Recoverable	Water	6020	346573
400-135255-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	346573
400-135255-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	346573

## General Chemistry

### Analysis Batch: 346357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total/NA	Water	SM 2540C	
MB 400-346357/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346357/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135240-A-20 DU	Duplicate	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-346204/28**  
**Matrix: Water**  
**Analysis Batch: 346204**

**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			03/17/17 19:46	1
Fluoride	<0.082		0.20	0.082	mg/L			03/17/17 19:46	1
Sulfate	<0.70		1.0	0.70	mg/L			03/17/17 19:46	1

**Lab Sample ID: LCS 400-346204/29**  
**Matrix: Water**  
**Analysis Batch: 346204**

**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		100	90 - 110
Fluoride	10.0	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-346204/30**  
**Matrix: Water**  
**Analysis Batch: 346204**

**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	9.86		mg/L		99	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	2	15
Sulfate	10.0	9.91		mg/L		99	90 - 110	2	15

**Lab Sample ID: 400-135240-A-14 MS**  
**Matrix: Water**  
**Analysis Batch: 346204**

**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	1.4		10.0	11.4		mg/L		100	80 - 120
Fluoride	0.30		10.0	11.0		mg/L		107	80 - 120
Sulfate	11		10.0	21.1		mg/L		105	80 - 120

**Lab Sample ID: 400-135240-A-14 MSD**  
**Matrix: Water**  
**Analysis Batch: 346204**

**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	1.4		10.0	11.4		mg/L		100	80 - 120	0	20
Fluoride	0.30		10.0	11.0		mg/L		107	80 - 120	0	20
Sulfate	11		10.0	21.1		mg/L		104	80 - 120	0	20

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

**Lab Sample ID: MB 400-346573/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		03/21/17 13:03	03/23/17 11:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 11:39	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-346573/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.00049		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 11:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:39	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 11:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:39	5
Calcium	<0.13		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 11:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 11:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 11:39	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 11:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 11:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 11:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 11:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 11:39	5

**Lab Sample ID: LCS 400-346573/2-A**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Antimony	0.0500	0.0557		mg/L		111		80 - 120
Arsenic	0.0500	0.0528		mg/L		106		80 - 120
Barium	0.0500	0.0523		mg/L		105		80 - 120
Beryllium	0.0500	0.0513		mg/L		103		80 - 120
Boron	0.100	0.0990		mg/L		99		80 - 120
Cadmium	0.0500	0.0520		mg/L		104		80 - 120
Calcium	5.00	5.02		mg/L		100		80 - 120
Chromium	0.0500	0.0516		mg/L		103		80 - 120
Cobalt	0.0500	0.0486		mg/L		97		80 - 120
Lead	0.0500	0.0597	^	mg/L		119		80 - 120
Lithium	0.0500	0.0534		mg/L		107		80 - 120
Molybdenum	0.100	0.102		mg/L		102		80 - 120
Selenium	0.0500	0.0511		mg/L		102		80 - 120
Thallium	0.0100	0.0106		mg/L		106		80 - 120

**Lab Sample ID: 400-135255-B-2-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Antimony	<0.0010		0.0500	0.0541		mg/L		108		75 - 125
Arsenic	0.0015		0.0500	0.0559		mg/L		109		75 - 125
Barium	0.040		0.0500	0.0930		mg/L		106		75 - 125
Beryllium	<0.00034		0.0500	0.0533		mg/L		107		75 - 125
Cadmium	0.00049	J	0.0500	0.0545		mg/L		108		75 - 125
Calcium	78		5.00	80.2	4	mg/L		50		75 - 125
Chromium	<0.0011		0.0500	0.0484		mg/L		97		75 - 125
Cobalt	0.00040	J	0.0500	0.0534		mg/L		106		75 - 125
Lead	<0.00035	^	0.0500	0.0548	^	mg/L		110		75 - 125
Lithium	0.029		0.0500	0.0818		mg/L		106		75 - 125
Selenium	0.0079		0.0500	0.0603		mg/L		105		75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

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

**Lab Sample ID: 400-135255-B-2-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.00024	J	0.0100	0.0108		mg/L		106	75 - 125

**Lab Sample ID: 400-135255-B-2-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0522		mg/L		104	75 - 125	4	20
Arsenic	0.0015		0.0500	0.0554		mg/L		108	75 - 125	1	20
Barium	0.040		0.0500	0.0924		mg/L		105	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125	1	20
Cadmium	0.00049	J	0.0500	0.0517		mg/L		102	75 - 125	5	20
Calcium	78		5.00	79.5	4	mg/L		36	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0473		mg/L		95	75 - 125	2	20
Cobalt	0.00040	J	0.0500	0.0535		mg/L		106	75 - 125	0	20
Lead	<0.00035	^	0.0500	0.0540	^	mg/L		108	75 - 125	1	20
Lithium	0.029		0.0500	0.0798		mg/L		102	75 - 125	2	20
Selenium	0.0079		0.0500	0.0573		mg/L		99	75 - 125	5	20
Thallium	0.00024	J	0.0100	0.0108		mg/L		105	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-346429/14-A**  
**Matrix: Water**  
**Analysis Batch: 346931**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 346429**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000122	J	0.00020	0.000070	mg/L		03/20/17 12:31	03/23/17 14:48	1

**Lab Sample ID: LCS 400-346429/15-A**  
**Matrix: Water**  
**Analysis Batch: 346931**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 346429**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00111		mg/L		110	80 - 120

**Lab Sample ID: 400-135240-B-18-B MS**  
**Matrix: Water**  
**Analysis Batch: 346931**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 346429**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00013	J B	0.00201	0.00216		mg/L		101	80 - 120

**Lab Sample ID: 400-135240-B-18-C MSD**  
**Matrix: Water**  
**Analysis Batch: 346931**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 346429**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00013	J B	0.00201	0.00220		mg/L		103	80 - 120	2	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-3  
 SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-346357/1**  
**Matrix: Water**  
**Analysis Batch: 346357**

**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			03/20/17 14:06	1

**Lab Sample ID: LCS 400-346357/2**  
**Matrix: Water**  
**Analysis Batch: 346357**

**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: 400-135240-A-20 DU**  
**Matrix: Water**  
**Analysis Batch: 346357**

**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		124		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, Zip: GA, 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Ash Pond  
 Site: CCR

**Sample Information**  
 Sampler: C. Hurdle CH  
 Lab PM: Whitmire, Cheyenne R  
 Phone: Whitmire, Cheyenne R  
 E-Mail: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):  
 COC No:  
 Page:  
 Job #:

Due Date Requested:		Analysis Requested		Total Number of Containers	Special Instructions/Note:
TAT Requested (days):	Due Date Requested:				
1000	3/17/17	W			

**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:**

**Received by:** \_\_\_\_\_  
 Received by: \_\_\_\_\_  
 Received by: \_\_\_\_\_

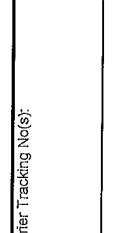
Date/Time: 3/17/17 1610  
 Date/Time: 3/17/17 1730  
 Date/Time:

Company: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Company: \_\_\_\_\_

Cooler Temperature(s) \_\_\_\_\_  
 Other Remarks: \_\_\_\_\_

Relinquished by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_

Custody Seal No.:  
 Δ Yes Δ No



400-135240 COC

- Preservation Codes:**
- M - Hexane
  - N - None
  - O - AsNaO2
  - P - Na2OAS
  - Q - Na2SO3
  - R - NaHSO4
  - F - MeOH
  - G - Amchlor
  - H - Ascorbic Acid
  - I - Ice
  - J - DI Water
  - K - EDTA
  - L - EDA
  - Other:
- Other:**





## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135240-3  
SDG Number: Gypsum Landfill

**Login Number: 135240**

**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.	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	0.0°C, 2.2°C - IR7 / 2.0°C, 2.9°C - IR2, 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.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	WGWC-19 1 liter unpreserved received half full with loose lid.
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 Wansley

TestAmerica Job ID: 400-135240-3  
SDG: Gypsum Landfill

## 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: 400-135240-4

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/19/2017 5:14:52 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

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**Job ID: 400-135240-4**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-135240-4**

**RAD**

Method(s) PrecSep\_0: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-299581. An LCS/LCSD were prepared to demonstrate batch precision.

Method(s) PrecSep-21: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-299579. An LCS/LCSD were prepared to demonstrate batch precision.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135240-25	GWA-29	Water	03/15/17 14:10	03/17/17 09:01

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-29**  
**Date Collected: 03/15/17 14:10**  
**Date Received: 03/17/17 09:01**

**Lab Sample ID: 400-135240-25**  
**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	0.00378	U	0.0691	0.0691	1.00	0.135	pCi/L	03/24/17 13:19	04/17/17 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					03/24/17 13:19	04/17/17 08:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.713		0.338	0.344	1.00	0.506	pCi/L	03/24/17 13:46	04/10/17 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					03/24/17 13:46	04/10/17 10:53	1
Y Carrier	78.9		40 - 110					03/24/17 13:46	04/10/17 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.717		0.345	0.351	5.00	0.506	pCi/L		04/18/17 12:13	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 03/15/17 14:10**

**Date Received: 03/17/17 09:01**

**Lab Sample ID: 400-135240-25**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299579	03/24/17 13:19	LDE	TAL SL
Total/NA	Analysis	9315		1	303660	04/17/17 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			299581	03/24/17 13:46	LDE	TAL SL
Total/NA	Analysis	9320		1	302707	04/10/17 10:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:13	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 Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 299579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total/NA	Water	PrecSep-21	
MB 160-299579/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-299579/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-299579/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 299581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135240-25	GWA-29	Total/NA	Water	PrecSep_0	
MB 160-299581/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-299581/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-299581/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 160-299579/1-A**  
**Matrix: Water**  
**Analysis Batch: 303660**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 299579**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02878	U	0.0608	0.0609	1.00	0.110	pCi/L	03/24/17 13:19	04/17/17 08:28	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					03/24/17 13:19	04/17/17 08:28	1

**Lab Sample ID: LCS 160-299579/2-A**  
**Matrix: Water**  
**Analysis Batch: 303660**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 299579**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.8	9.400		1.00	1.00	0.115	pCi/L	80	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	92.6		40 - 110						

**Lab Sample ID: LCSD 160-299579/3-A**  
**Matrix: Water**  
**Analysis Batch: 303660**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 299579**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.8	9.188		0.985	1.00	0.127	pCi/L	78	68 - 137	0.11	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	93.5		40 - 110								

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

**Lab Sample ID: MB 160-299581/1-A**  
**Matrix: Water**  
**Analysis Batch: 302721**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 299581**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2658	U	0.268	0.269	1.00	0.436	pCi/L	03/24/17 13:46	04/10/17 10:48	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					03/24/17 13:46	04/10/17 10:48	1
Y Carrier	77.8		40 - 110					03/24/17 13:46	04/10/17 10:48	1

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

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

**Lab Sample ID: LCS 160-299581/2-A**  
**Matrix: Water**  
**Analysis Batch: 302721**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 299581**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.6	16.07		1.71	1.00	0.421	pCi/L	118	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.6		40 - 110
Y Carrier	83.4		40 - 110

**Lab Sample ID: LCSD 160-299581/3-A**  
**Matrix: Water**  
**Analysis Batch: 302721**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 299581**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.6	16.60		1.76	1.00	0.410	pCi/L	122	56 - 140	0.15	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	93.5		40 - 110
Y Carrier	80.0		40 - 110

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

**Lab Sample ID: 400-135240-A-15 DU**  
**Matrix: Water**  
**Analysis Batch: 304127**

**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	1.64		1.617		0.350	5.00	0.397	pCi/L	0.03	

Chain of Custody Record

TestAmerica Pensacola  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

Client Information  
 Client Contact: Jolij Abraham  
 Southern Company  
 Address: 2441 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

Lab Pk: Whitmore, Cheyenne R  
 I-Well: cheyenne.whitmore@testamericainc.com  
 OOC No:  
 Page:  
 Job #:

Analysis Requested:  
 Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSON#: CCR

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Powder, Liquid, Other)	Special Instructions/Notes
GWA-29	3/15/17	1410	G	W	

Media	Media Description	Media Date	Media Time	Media Type	Media Matrix	Media Notes
TS - 9M 2540C, CF, S04 - EPA 300						
Media - (Part 287 Appendix III & IV) EPA 6020 & EPA 7470						
Media 228 & 220 - SW-846 9315 & 9320						

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:  
 Relinquished by: [Signature] Date: 3/16/17 1300  
 Relinquished by: [Signature] Date: 3/16/17 1700  
 Relinquished by: [Signature] Date: [ ] [ ] [ ] [ ]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Dispose By Lab  Archive For [ ] Months  
 Special Instructions/QC Requirements:  
 Method of Shipment:  
 Received by: [Signature] Date: 3/16/17 1300 Company: TA  
 Received by: [Signature] Date: 3/17/17 901 Company: TA-PEN  
 Received by: [Signature] Date: [ ] [ ] [ ] [ ] Company: [ ]  
 Cooler Temperature(s) \*Cold Other Remarks: 2.0°C, 2.9°C - IR2  
 Custody Seal No.:  
 Yes  No



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135240-4  
SDG Number: Gypsum Landfill

**Login Number: 135240**

**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.	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	0.0°C, 2.2°C - IR7 / 2.0°C, 2.9°C - IR2, 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.	False	WGWC-19 1 liter unpreserved received half full with loose lid.
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 Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

## 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

## 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	03-31-17 *
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 *

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

TestAmerica Pensacola



# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135240-4  
SDG: Gypsum Landfill

## 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	02-28-18
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 *

\* 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: 400-135367-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

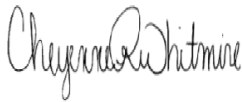
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

3/27/2017 6:33:12 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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

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

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# Case Narrative

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Job ID: 400-135367-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-135367-1

#### Metals

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: (400-135255-B-2-B ^25). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 347015 recovered above the upper control limit for Lead. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: GWA-28 (400-135367-1), GWA-4 (400-135367-2), GWC-26 (400-135367-3), GWA-1 (400-135367-4), GWC-27 (400-135367-5), FB-1 (400-135367-6), GWA-2 (400-135367-7), GWC-30 (400-135367-8), DUP-1 (400-135367-9), FERB-1 (400-135367-10) and (400-135255-B-2-B ^5).

Method(s) 6020: The serial dilution performed for the following sample associated with batch 347015 was outside control limits for Chromium: (400-135255-B-2-B SD)

Method(s) 6020: The post digestion spike % recovery for Lead associated with batch 347015 was outside of control limits.

Method(s) 6020: The native sample and post digestion spike associated with preparation batch 346573 and analytical batch 347015 were performed at the same dilution. Due to the additional level of analyte present in the spiked sample, the concentration of Calcium in the PDS was above the instrument calibration range. The data have been reported and qualified.

Method(s) 7470A: The method blank for prep batch 346429 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 Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Client Sample ID: GWA-28

## Lab Sample ID: 400-135367-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.7		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.00055	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.020		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0072	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Mercury	0.00016	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-135367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16		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
Barium	0.15		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0059		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0034	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.00016	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-26

## Lab Sample ID: 400-135367-3

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	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00014	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWA-1

## Lab Sample ID: 400-135367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.72		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00015	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-135367-5

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-27 (Continued)

## Lab Sample ID: 400-135367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.32		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	0.95	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0096		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0018	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0024	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.00017	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.00015	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-1

## Lab Sample ID: 400-135367-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00018	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWA-2

## Lab Sample ID: 400-135367-7

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	1.8		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00015	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-135367-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.084	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0071		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00017	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-1

## Lab Sample ID: 400-135367-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0075		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 Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Client Sample ID: DUP-1 (Continued)

## Lab Sample ID: 400-135367-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	3.0		0.25	0.13	mg/L	5		6020	Total
Mercury	0.000080	J B	0.00020	0.000070	mg/L	1		7470A	Recoverable Total/NA
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-1

## Lab Sample ID: 400-135367-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00011	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135367-1	GWA-28	Water	03/16/17 12:05	03/18/17 09:51
400-135367-2	GWA-4	Water	03/16/17 12:40	03/18/17 09:51
400-135367-3	GWC-26	Water	03/16/17 14:15	03/18/17 09:51
400-135367-4	GWA-1	Water	03/16/17 15:40	03/18/17 09:51
400-135367-5	GWC-27	Water	03/16/17 16:05	03/18/17 09:51
400-135367-6	FB-1	Water	03/16/17 15:05	03/18/17 09:51
400-135367-7	GWA-2	Water	03/17/17 10:40	03/18/17 09:51
400-135367-8	GWC-30	Water	03/17/17 12:20	03/18/17 09:51
400-135367-9	DUP-1	Water	03/17/17 00:00	03/18/17 09:51
400-135367-10	FERB-1	Water	03/17/17 11:20	03/18/17 09:51



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**  
**Date Collected: 03/16/17 12:05**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			03/20/17 16:24	1
Fluoride	1.7		0.20	0.082	mg/L			03/20/17 16:24	1
Sulfate	1.2		1.0	0.70	mg/L			03/20/17 16:24	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		03/21/17 13:03	03/23/17 14:17	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 14:17	5
Barium	0.00055	J	0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 14:17	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:17	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 14:17	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:17	5
Calcium	2.7		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 14:17	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 14:17	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 14:17	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 14:17	5
Lithium	0.020		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 14:17	5
Molybdenum	0.0072	J	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 14:17	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 14:17	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 14:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00016	J B	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 03/16/17 12:40**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>16</b>		1.0	0.89	mg/L			03/20/17 17:33	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 17:33	1
<b>Sulfate</b>	<b>9.1</b>		1.0	0.70	mg/L			03/20/17 17:33	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		03/21/17 13:03	03/23/17 14:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 14:21	5
<b>Barium</b>	<b>0.15</b>		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 14:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:21	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 14:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:21	5
<b>Calcium</b>	<b>27</b>		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 14:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 14:21	5
<b>Cobalt</b>	<b>0.0059</b>		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 14:21	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 14:21	5
<b>Lithium</b>	<b>0.0034</b>	<b>J</b>	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 14:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 14:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 14:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 14:21	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00016</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:26	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>180</b>		5.0	3.4	mg/L			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 03/16/17 14:15**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-3**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.7</b>		1.0	0.89	mg/L			03/20/17 17:55	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 17:55	1
Sulfate	<0.70		1.0	0.70	mg/L			03/20/17 17:55	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		03/21/17 13:03	03/23/17 14:26	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 14:26	5
<b>Barium</b>	<b>0.035</b>		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 14:26	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:26	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 14:26	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:26	5
<b>Calcium</b>	<b>1.7</b>		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 14:26	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 14:26	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 14:26	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 14:26	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 14:26	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 14:26	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 14:26	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 14:26	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00014</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:28	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			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 03/16/17 15:40**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-4**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			03/20/17 18:18	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 18:18	1
Sulfate	<0.70		1.0	0.70	mg/L			03/20/17 18:18	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		03/21/17 13:03	03/23/17 14:49	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 14:49	5
<b>Barium</b>	<b>0.010</b>		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 14:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:49	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 14:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:49	5
<b>Calcium</b>	<b>0.72</b>		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 14:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 14:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 14:49	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 14:49	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 14:49	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 14:49	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 14:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 14:49	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00015</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:29	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>14</b>		5.0	3.4	mg/L			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**  
**Date Collected: 03/16/17 16:05**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-5**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0		1.0	0.89	mg/L			03/20/17 18:41	1
Fluoride	0.32		0.20	0.082	mg/L			03/20/17 18:41	1
Sulfate	0.95	J	1.0	0.70	mg/L			03/20/17 18:41	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		03/21/17 13:03	03/23/17 14:53	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 14:53	5
Barium	0.0096		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 14:53	5
Beryllium	0.0018	J	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:53	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 14:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:53	5
Calcium	1.0		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 14:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 14:53	5
Cobalt	0.0024	J	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 14:53	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 14:53	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 14:53	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 14:53	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 14:53	5
Thallium	0.00017	J	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 14:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00015	J B	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:30	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 03/16/17 15:05**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-6**  
**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			03/20/17 19:04	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 19:04	1
Sulfate	<0.70		1.0	0.70	mg/L			03/20/17 19:04	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		03/21/17 13:03	03/23/17 14:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 14:58	5
Barium	<0.00049		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 14:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:58	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 14:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 14:58	5
Calcium	<0.13		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 14:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 14:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 14:58	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 14:58	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 14:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 14:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 14:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 14:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00018	J B	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:31	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			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 03/17/17 10:40**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-7**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.4</b>		1.0	0.89	mg/L			03/20/17 19:27	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 19:27	1
<b>Sulfate</b>	<b>1.8</b>		1.0	0.70	mg/L			03/20/17 19:27	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		03/21/17 13:03	03/23/17 15:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 15:02	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 15:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:02	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 15:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:02	5
<b>Calcium</b>	<b>3.4</b>		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 15:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 15:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 15:02	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 15:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 15:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 15:02	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 15:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 15:02	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00015</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:33	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			03/22/17 12:52	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**  
**Date Collected: 03/17/17 12:20**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-8**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			03/20/17 20:12	1
Fluoride	0.084	J	0.20	0.082	mg/L			03/20/17 20:12	1
Sulfate	1.3		1.0	0.70	mg/L			03/20/17 20:12	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		03/21/17 13:03	03/23/17 15:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 15:07	5
Barium	0.0071		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 15:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:07	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 15:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:07	5
Calcium	2.9		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 15:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 15:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 15:07	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 15:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 15:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 15:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 15:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 15:07	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00017	J B	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:34	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	48		5.0	3.4	mg/L			03/22/17 12:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**  
**Date Collected: 03/17/17 00:00**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-9**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			03/20/17 20:35	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 20:35	1
<b>Sulfate</b>	<b>1.3</b>		1.0	0.70	mg/L			03/20/17 20:35	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		03/21/17 13:03	03/23/17 15:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 15:11	5
<b>Barium</b>	<b>0.0075</b>		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 15:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:11	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 15:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:11	5
<b>Calcium</b>	<b>3.0</b>		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 15:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 15:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 15:11	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 15:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 15:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 15:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 15:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 15:11	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000080</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/20/17 15:45	03/23/17 15:35	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>58</b>		5.0	3.4	mg/L			03/22/17 13:59	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**  
**Date Collected: 03/17/17 11:20**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-10**  
**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			03/20/17 20:58	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 20:58	1
Sulfate	<0.70		1.0	0.70	mg/L			03/20/17 20:58	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		03/21/17 13:03	03/23/17 15:16	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 15:16	5
Barium	<0.00049		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 15:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:16	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 15:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 15:16	5
Calcium	<0.13		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 15:16	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 15:16	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 15:16	5
Lead	<0.00035	^	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 15:16	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 15:16	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 15:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 15:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 15:16	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00011	J B	0.00020	0.000070	mg/L		03/20/17 15:46	03/23/17 15:36	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			03/22/17 12:52	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## 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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
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 Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 03/16/17 12:05**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 16:24	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 14:17	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 03/16/17 12:40**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 17:33	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 14:21	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

**Client Sample ID: GWC-26**

**Date Collected: 03/16/17 14:15**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 17:55	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 14:26	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

**Client Sample ID: GWA-1**

**Date Collected: 03/16/17 15:40**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 18:18	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 14:49	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-135367-5**

**Date Collected: 03/16/17 16:05**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 18:41	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 14:53	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

**Client Sample ID: FB-1**

**Lab Sample ID: 400-135367-6**

**Date Collected: 03/16/17 15:05**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 19:04	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 14:58	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

**Client Sample ID: GWA-2**

**Lab Sample ID: 400-135367-7**

**Date Collected: 03/17/17 10:40**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 19:27	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 15:02	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346667	03/22/17 12:52	RRC	TAL PEN

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-135367-8**

**Date Collected: 03/17/17 12:20**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 20:12	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 15:07	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346667	03/22/17 12:52	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 03/17/17 00:00**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 20:35	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 15:11	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:45	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN

**Client Sample ID: FERB-1**

**Date Collected: 03/17/17 11:20**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	346459	03/20/17 20:58	KH1	TAL PEN
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 15:16	DRE	TAL PEN
Total/NA	Prep	7470A			346429	03/20/17 15:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346931	03/23/17 15:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346667	03/22/17 12:52	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 Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 346459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total/NA	Water	300.0	
400-135367-2	GWA-4	Total/NA	Water	300.0	
400-135367-3	GWC-26	Total/NA	Water	300.0	
400-135367-4	GWA-1	Total/NA	Water	300.0	
400-135367-5	GWC-27	Total/NA	Water	300.0	
400-135367-6	FB-1	Total/NA	Water	300.0	
400-135367-7	GWA-2	Total/NA	Water	300.0	
400-135367-8	GWC-30	Total/NA	Water	300.0	
400-135367-9	DUP-1	Total/NA	Water	300.0	
400-135367-10	FERB-1	Total/NA	Water	300.0	
MB 400-346459/4	Method Blank	Total/NA	Water	300.0	
LCS 400-346459/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-346459/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-135298-D-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-135298-D-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 346429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total/NA	Water	7470A	
400-135367-2	GWA-4	Total/NA	Water	7470A	
400-135367-3	GWC-26	Total/NA	Water	7470A	
400-135367-4	GWA-1	Total/NA	Water	7470A	
400-135367-5	GWC-27	Total/NA	Water	7470A	
400-135367-6	FB-1	Total/NA	Water	7470A	
400-135367-7	GWA-2	Total/NA	Water	7470A	
400-135367-8	GWC-30	Total/NA	Water	7470A	
400-135367-9	DUP-1	Total/NA	Water	7470A	
400-135367-10	FERB-1	Total/NA	Water	7470A	
MB 400-346429/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-346429/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135240-B-18-B MS	Matrix Spike	Total/NA	Water	7470A	
400-135240-B-18-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 346573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total Recoverable	Water	3005A	
400-135367-2	GWA-4	Total Recoverable	Water	3005A	
400-135367-3	GWC-26	Total Recoverable	Water	3005A	
400-135367-4	GWA-1	Total Recoverable	Water	3005A	
400-135367-5	GWC-27	Total Recoverable	Water	3005A	
400-135367-6	FB-1	Total Recoverable	Water	3005A	
400-135367-7	GWA-2	Total Recoverable	Water	3005A	
400-135367-8	GWC-30	Total Recoverable	Water	3005A	
400-135367-9	DUP-1	Total Recoverable	Water	3005A	
400-135367-10	FERB-1	Total Recoverable	Water	3005A	
MB 400-346573/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-346573/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135255-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 346573 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 346931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total/NA	Water	7470A	346429
400-135367-2	GWA-4	Total/NA	Water	7470A	346429
400-135367-3	GWC-26	Total/NA	Water	7470A	346429
400-135367-4	GWA-1	Total/NA	Water	7470A	346429
400-135367-5	GWC-27	Total/NA	Water	7470A	346429
400-135367-6	FB-1	Total/NA	Water	7470A	346429
400-135367-7	GWA-2	Total/NA	Water	7470A	346429
400-135367-8	GWC-30	Total/NA	Water	7470A	346429
400-135367-9	DUP-1	Total/NA	Water	7470A	346429
400-135367-10	FERB-1	Total/NA	Water	7470A	346429
MB 400-346429/14-A	Method Blank	Total/NA	Water	7470A	346429
LCS 400-346429/15-A	Lab Control Sample	Total/NA	Water	7470A	346429
400-135240-B-18-B MS	Matrix Spike	Total/NA	Water	7470A	346429
400-135240-B-18-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	346429

### Analysis Batch: 347015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total Recoverable	Water	6020	346573
400-135367-2	GWA-4	Total Recoverable	Water	6020	346573
400-135367-3	GWC-26	Total Recoverable	Water	6020	346573
400-135367-4	GWA-1	Total Recoverable	Water	6020	346573
400-135367-5	GWC-27	Total Recoverable	Water	6020	346573
400-135367-6	FB-1	Total Recoverable	Water	6020	346573
400-135367-7	GWA-2	Total Recoverable	Water	6020	346573
400-135367-8	GWC-30	Total Recoverable	Water	6020	346573
400-135367-9	DUP-1	Total Recoverable	Water	6020	346573
400-135367-10	FERB-1	Total Recoverable	Water	6020	346573
MB 400-346573/1-A ^5	Method Blank	Total Recoverable	Water	6020	346573
LCS 400-346573/2-A	Lab Control Sample	Total Recoverable	Water	6020	346573
400-135255-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	346573
400-135255-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	346573

## General Chemistry

### Analysis Batch: 346667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-7	GWA-2	Total/NA	Water	SM 2540C	
400-135367-8	GWC-30	Total/NA	Water	SM 2540C	
400-135367-10	FERB-1	Total/NA	Water	SM 2540C	
MB 400-346667/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346667/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135411-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 346671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## General Chemistry (Continued)

### Analysis Batch: 346671 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-2	GWA-4	Total/NA	Water	SM 2540C	
400-135367-3	GWC-26	Total/NA	Water	SM 2540C	
400-135367-4	GWA-1	Total/NA	Water	SM 2540C	
400-135367-5	GWC-27	Total/NA	Water	SM 2540C	
400-135367-6	FB-1	Total/NA	Water	SM 2540C	
400-135367-9	DUP-1	Total/NA	Water	SM 2540C	
MB 400-346671/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346671/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135367-2 DU	GWA-4	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-346459/4**  
**Matrix: Water**  
**Analysis Batch: 346459**

**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			03/20/17 12:52	1
Fluoride	<0.082		0.20	0.082	mg/L			03/20/17 12:52	1
Sulfate	<0.70		1.0	0.70	mg/L			03/20/17 12:52	1

**Lab Sample ID: LCS 400-346459/5**  
**Matrix: Water**  
**Analysis Batch: 346459**

**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	9.89		mg/L		99	90 - 110

**Lab Sample ID: LCSD 400-346459/6**  
**Matrix: Water**  
**Analysis Batch: 346459**

**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	9.95		mg/L		100	90 - 110	1	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	1	15
Sulfate	10.0	9.85		mg/L		98	90 - 110	0	15

**Lab Sample ID: 400-135298-D-4 MS**  
**Matrix: Water**  
**Analysis Batch: 346459**

**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	<4.5		50.0	51.9		mg/L		104	80 - 120
Fluoride	0.99	J	50.0	54.3		mg/L		107	80 - 120
Sulfate	110		50.0	159		mg/L		104	80 - 120

**Lab Sample ID: 400-135298-D-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 346459**

**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	<4.5		50.0	52.1		mg/L		104	80 - 120	0	20
Fluoride	0.99	J	50.0	54.3		mg/L		107	80 - 120	0	20
Sulfate	110		50.0	159		mg/L		104	80 - 120	0	20

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

**Lab Sample ID: MB 400-346573/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		03/21/17 13:03	03/23/17 11:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 11:39	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

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

**Lab Sample ID: MB 400-346573/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.00049		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 11:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:39	5
Boron	<0.021		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 11:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:39	5
Calcium	<0.13		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 11:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 11:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 11:39	5
Lead	<0.00035 ^		0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 11:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 11:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 11:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 11:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 11:39	5

**Lab Sample ID: LCS 400-346573/2-A**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Antimony	0.0500	0.0557		mg/L		111	80 - 120	
Arsenic	0.0500	0.0528		mg/L		106	80 - 120	
Barium	0.0500	0.0523		mg/L		105	80 - 120	
Beryllium	0.0500	0.0513		mg/L		103	80 - 120	
Boron	0.100	0.0990		mg/L		99	80 - 120	
Cadmium	0.0500	0.0520		mg/L		104	80 - 120	
Calcium	5.00	5.02		mg/L		100	80 - 120	
Chromium	0.0500	0.0516		mg/L		103	80 - 120	
Cobalt	0.0500	0.0486		mg/L		97	80 - 120	
Lead	0.0500	0.0597 ^		mg/L		119	80 - 120	
Lithium	0.0500	0.0534		mg/L		107	80 - 120	
Molybdenum	0.100	0.102		mg/L		102	80 - 120	
Selenium	0.0500	0.0511		mg/L		102	80 - 120	
Thallium	0.0100	0.0106		mg/L		106	80 - 120	

**Lab Sample ID: 400-135255-B-2-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 347015**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 346573**

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Antimony	<0.0010		0.0500	0.0541		mg/L		108	75 - 125	
Arsenic	0.0015		0.0500	0.0559		mg/L		109	75 - 125	
Barium	0.040		0.0500	0.0930		mg/L		106	75 - 125	
Beryllium	<0.00034		0.0500	0.0533		mg/L		107	75 - 125	
Cadmium	0.00049	J	0.0500	0.0545		mg/L		108	75 - 125	
Calcium	78		5.00	80.2	4	mg/L		50	75 - 125	
Chromium	<0.0011		0.0500	0.0484		mg/L		97	75 - 125	
Cobalt	0.00040	J	0.0500	0.0534		mg/L		106	75 - 125	
Lead	<0.00035 ^		0.0500	0.0548	^	mg/L		110	75 - 125	
Lithium	0.029		0.0500	0.0818		mg/L		106	75 - 125	
Selenium	0.0079		0.0500	0.0603		mg/L		105	75 - 125	

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-135255-B-2-C MS ^5  
Matrix: Water  
Analysis Batch: 347015

Client Sample ID: Matrix Spike  
Prep Type: Total Recoverable  
Prep Batch: 346573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.00024	J	0.0100	0.0108		mg/L		106	75 - 125

Lab Sample ID: 400-135255-B-2-D MSD ^5  
Matrix: Water  
Analysis Batch: 347015

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total Recoverable  
Prep Batch: 346573

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0522		mg/L		104	75 - 125	4	20
Arsenic	0.0015		0.0500	0.0554		mg/L		108	75 - 125	1	20
Barium	0.040		0.0500	0.0924		mg/L		105	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125	1	20
Cadmium	0.00049	J	0.0500	0.0517		mg/L		102	75 - 125	5	20
Calcium	78		5.00	79.5	4	mg/L		36	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0473		mg/L		95	75 - 125	2	20
Cobalt	0.00040	J	0.0500	0.0535		mg/L		106	75 - 125	0	20
Lead	<0.00035	^	0.0500	0.0540	^	mg/L		108	75 - 125	1	20
Lithium	0.029		0.0500	0.0798		mg/L		102	75 - 125	2	20
Selenium	0.0079		0.0500	0.0573		mg/L		99	75 - 125	5	20
Thallium	0.00024	J	0.0100	0.0108		mg/L		105	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-346429/14-A  
Matrix: Water  
Analysis Batch: 346931

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 346429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000122	J	0.00020	0.000070	mg/L		03/20/17 12:31	03/23/17 14:48	1

Lab Sample ID: LCS 400-346429/15-A  
Matrix: Water  
Analysis Batch: 346931

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 346429

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00111		mg/L		110	80 - 120

Lab Sample ID: 400-135240-B-18-B MS  
Matrix: Water  
Analysis Batch: 346931

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 346429

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00013	J B	0.00201	0.00216		mg/L		101	80 - 120

Lab Sample ID: 400-135240-B-18-C MSD  
Matrix: Water  
Analysis Batch: 346931

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 346429

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00013	J B	0.00201	0.00220		mg/L		103	80 - 120	2	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-346667/1**  
**Matrix: Water**  
**Analysis Batch: 346667**

**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			03/22/17 12:52	1

**Lab Sample ID: LCS 400-346667/2**  
**Matrix: Water**  
**Analysis Batch: 346667**

**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: 400-135411-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 346667**

**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	640		634		mg/L		0.6	5

**Lab Sample ID: MB 400-346671/1**  
**Matrix: Water**  
**Analysis Batch: 346671**

**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			03/22/17 13:59	1

**Lab Sample ID: LCS 400-346671/2**  
**Matrix: Water**  
**Analysis Batch: 346671**

**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	250		mg/L		85	78 - 122

**Lab Sample ID: 400-135367-2 DU**  
**Matrix: Water**  
**Analysis Batch: 346671**

**Client Sample ID: GWA-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	180		178		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: GA, Zip: 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** T. Payne TP.C. Hurdle CH.M. Thomas MT  
**Lab PM:** Whitmire, Cheyenne R  
**Carrier Tracking No(s):**  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (G=Grab)	Matrix (W=water, S=solid, O=soil/sediment, E=effluent, B=leachate, A=air)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					TDS - SM 2640C; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		
GWA-28	3/16/17	1205	G	W	X	X	3	
GWA-4	3/16/17	1240	G	W	X	X	3	
GWC-26	3/16/17	1415	G	W	X	X	4	Extra radium bottle collected for lab QA/QC
GWA-1	3/16/17	1540	G	W	X	X	3	
GWC-27	3/16/17	1605	G	W	X	X	3	
FB-1	3/16/17	1505	G	W	X	X	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
**Deliverable Requested:** I, II, III, IV, Other (specify)

**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: [Signature] Date: 3/17/17 1610 Company: [Signature]  
 Relinquished by: [Signature] Date: 3/17/17 1230 Company: [Signature]  
 Relinquished by: [Signature] Date: 3/18/17 0857 Company: [Signature]

**Custody Seals Intact:** Δ Yes Δ No  
 Custody Seal No.: [Signature] Cooler Temperature (°C and Other) Remarks: [Signature]



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

### Chain of Custody Record

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Company: Southern Company		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No:	
Client Contact: Joju Abraham		Address: 241 Ralph McGill Blvd SE B10185		Phone: T. Payne TP#M. Thomas MT		E-Mail: cheyenne.whitmire@testamericainc.com		Page:	
City: Atlanta		State, Zip: GA, 30308		PO #: 404-506-7239		WO #: JAbraham@southernco.com		Job #:	
Project Name: Plant Wansley - Gypsum Landfill		Project #: CCR		SSOW#:		Due Date Requested:		Analysis Requested	
TAT Requested (days):		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, C=concrete, B=P-Tissue, A=Air)	
Field Filled Sample (Yes/No)		Sample Date		Sample Time		Sample Type		Matrix	
TDS - SM 2540C ; Cl <sub>2</sub> , SO <sub>4</sub> - EPA 300		3/17/17		1040		G		W	
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		3/17/17		1220		G		W	
Radium 226 & 228 - SW-846 9315 & 9320		3/17/17		-		G		W	
T - TSP Dodecahydrate		3/17/17		1120		G		W	
Total Number of Containers									
Special Instructions/Note:									

**Sample Identification**  
 GWA-2  
 GWC-30  
 DUP-1  
 FERB-1

**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: *FW* Date/Time: 3/17/17 1610 Company: *FW*

Relinquished by: *JK* Date/Time: 3/17/17 1730 Company: *JK*

Relinquished by: *JK* Date/Time: 3/17/17 1610 Company: *JK*

Custody Seals Intact:  Yes  No Custody Seal No.: \_\_\_\_\_

Special Instructions/QC Requirements:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Method of Shipment: \_\_\_\_\_

Received by: *JK* Date/Time: 3/17/17 1610 Company: *JK*

Received by: *JK* Date/Time: 3/18/17 0957 Company: *JK*

Received by: *JK* Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_





## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135367-1  
SDG Number: Gypsum Landfill

**Login Number: 135367**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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 Wansley

TestAmerica Job ID: 400-135367-1  
SDG: Gypsum Landfill

## 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: 400-135367-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

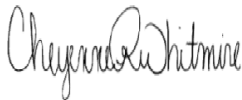
Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/19/2017 5:05:46 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

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Have a Question?



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[www.testamericainc.com](http://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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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135367-1	GWA-28	Water	03/16/17 12:05	03/18/17 09:51
400-135367-2	GWA-4	Water	03/16/17 12:40	03/18/17 09:51
400-135367-3	GWC-26	Water	03/16/17 14:15	03/18/17 09:51
400-135367-4	GWA-1	Water	03/16/17 15:40	03/18/17 09:51
400-135367-5	GWC-27	Water	03/16/17 16:05	03/18/17 09:51
400-135367-6	FB-1	Water	03/16/17 15:05	03/18/17 09:51
400-135367-7	GWA-2	Water	03/17/17 10:40	03/18/17 09:51
400-135367-8	GWC-30	Water	03/17/17 12:20	03/18/17 09:51
400-135367-9	DUP-1	Water	03/17/17 00:00	03/18/17 09:51
400-135367-10	FERB-1	Water	03/17/17 11:20	03/18/17 09:51

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Lab Sample ID: 400-135367-1**

**Date Collected: 03/16/17 12:05**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

**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		0.100	0.102	1.00	0.120	pCi/L	03/27/17 09:06	04/18/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					03/27/17 09:06	04/18/17 05:56	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.308	U	0.239	0.240	1.00	0.376	pCi/L	03/27/17 10:05	04/11/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					03/27/17 10:05	04/11/17 11:22	1
Y Carrier	83.0		40 - 110					03/27/17 10:05	04/11/17 11:22	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		0.259	0.261	5.00	0.376	pCi/L		04/18/17 12:13	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 03/16/17 12:40**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-2**  
**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.440		0.132	0.138	1.00	0.119	pCi/L	03/27/17 09:06	04/18/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					03/27/17 09:06	04/18/17 05:57	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.15		0.321	0.338	1.00	0.403	pCi/L	03/27/17 10:05	04/11/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					03/27/17 10:05	04/11/17 11:22	1
Y Carrier	81.9		40 - 110					03/27/17 10:05	04/11/17 11:22	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	1.59		0.347	0.365	5.00	0.403	pCi/L		04/18/17 12:13	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**  
**Date Collected: 03/16/17 14:15**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-3**  
**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0425	U	0.0676	0.0677	1.00	0.117	pCi/L	03/27/17 09:06	04/18/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					03/27/17 09:06	04/18/17 05:57	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0705	U	0.187	0.187	1.00	0.326	pCi/L	03/27/17 10:05	04/11/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					03/27/17 10:05	04/11/17 11:22	1
Y Carrier	89.3		40 - 110					03/27/17 10:05	04/11/17 11:22	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	0.113	U	0.199	0.199	5.00	0.326	pCi/L		04/18/17 12:13	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 03/16/17 15:40**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-4**  
**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	0.0280	U	0.0670	0.0671	1.00	0.125	pCi/L	03/27/17 09:06	04/18/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					03/27/17 09:06	04/18/17 05:57	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0593	U	0.300	0.300	1.00	0.524	pCi/L	03/27/17 10:05	04/11/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					03/27/17 10:05	04/11/17 11:22	1
Y Carrier	86.0		40 - 110					03/27/17 10:05	04/11/17 11:22	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	0.0872	U	0.308	0.308	5.00	0.524	pCi/L		04/18/17 12:17	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**  
**Date Collected: 03/16/17 16:05**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-5**  
**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	0.637		0.155	0.166	1.00	0.108	pCi/L	03/27/17 09:06	04/18/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					03/27/17 09:06	04/18/17 05:57	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.33		0.320	0.342	1.00	0.388	pCi/L	03/27/17 10:05	04/11/17 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					03/27/17 10:05	04/11/17 11:23	1
Y Carrier	88.2		40 - 110					03/27/17 10:05	04/11/17 11:23	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	1.96		0.356	0.380	5.00	0.388	pCi/L		04/18/17 12:17	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
 SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 03/16/17 15:05**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-6**  
**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	0.0247	U	0.0698	0.0698	1.00	0.128	pCi/L	03/27/17 09:06	04/18/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					03/27/17 09:06	04/18/17 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	0.144	U	0.209	0.209	1.00	0.350	pCi/L	03/27/17 10:05	04/11/17 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					03/27/17 10:05	04/11/17 11:23	1
Y Carrier	89.3		40 - 110					03/27/17 10:05	04/11/17 11:23	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	0.220	0.220	5.00	0.350	pCi/L		04/18/17 12:17	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 03/17/17 10:40**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-7**  
**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	0.0996	U	0.0738	0.0743	1.00	0.105	pCi/L	03/27/17 09:06	04/18/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/27/17 09:06	04/18/17 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	0.202	U	0.286	0.287	1.00	0.477	pCi/L	03/27/17 10:05	04/11/17 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/27/17 10:05	04/11/17 11:23	1
Y Carrier	86.7		40 - 110					03/27/17 10:05	04/11/17 11:23	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	0.302	U	0.296	0.296	5.00	0.477	pCi/L		04/18/17 12:17	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**

**Date Collected: 03/17/17 12:20**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-8**

**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	0.0779	U	0.0768	0.0771	1.00	0.120	pCi/L	03/27/17 09:06	04/18/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					03/27/17 09:06	04/18/17 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	0.0934	U	0.235	0.235	1.00	0.405	pCi/L	03/27/17 10:05	04/11/17 11:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					03/27/17 10:05	04/11/17 11:27	1
Y Carrier	84.9		40 - 110					03/27/17 10:05	04/11/17 11:27	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.171	U	0.247	0.247	5.00	0.405	pCi/L		04/18/17 12:17	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**  
**Date Collected: 03/17/17 00:00**  
**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-9**  
**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	0.0364	U	0.0734	0.0734	1.00	0.131	pCi/L	03/27/17 09:06	04/18/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					03/27/17 09:06	04/18/17 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	0.0685	U	0.245	0.246	1.00	0.428	pCi/L	03/27/17 10:05	04/11/17 11:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					03/27/17 10:05	04/11/17 11:27	1
Y Carrier	80.4		40 - 110					03/27/17 10:05	04/11/17 11:27	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	0.105	U	0.256	0.256	5.00	0.428	pCi/L		04/18/17 12:17	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Date Collected: 03/17/17 11:20**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-10**

**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	-0.00229	U	0.0507	0.0507	1.00	0.107	pCi/L	03/27/17 09:06	04/18/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					03/27/17 09:06	04/18/17 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	0.152	U	0.210	0.211	1.00	0.352	pCi/L	03/27/17 10:05	04/11/17 11:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					03/27/17 10:05	04/11/17 11:27	1
Y Carrier	86.0		40 - 110					03/27/17 10:05	04/11/17 11:27	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	0.150	U	0.216	0.217	5.00	0.352	pCi/L		04/18/17 12:17	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 03/16/17 12:05**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304053	04/18/17 05:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:13	RTM	TAL SL

**Client Sample ID: GWA-4**

**Date Collected: 03/16/17 12:40**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304053	04/18/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:13	RTM	TAL SL

**Client Sample ID: GWC-26**

**Date Collected: 03/16/17 14:15**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304053	04/18/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:13	RTM	TAL SL

**Client Sample ID: GWA-1**

**Date Collected: 03/16/17 15:40**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304053	04/18/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-135367-5**

**Date Collected: 03/16/17 16:05**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304053	04/18/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:23	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	RTM	TAL SL

**Client Sample ID: FB-1**

**Lab Sample ID: 400-135367-6**

**Date Collected: 03/16/17 15:05**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304077	04/18/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:23	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	RTM	TAL SL

**Client Sample ID: GWA-2**

**Lab Sample ID: 400-135367-7**

**Date Collected: 03/17/17 10:40**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304077	04/18/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302769	04/11/17 11:23	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	RTM	TAL SL

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-135367-8**

**Date Collected: 03/17/17 12:20**

**Matrix: Water**

**Date Received: 03/18/17 09:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304077	04/18/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302768	04/11/17 11:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 03/17/17 00:00**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304077	04/18/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302768	04/11/17 11:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	RTM	TAL SL

**Client Sample ID: FERB-1**

**Date Collected: 03/17/17 11:20**

**Date Received: 03/18/17 09:51**

**Lab Sample ID: 400-135367-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300067	03/27/17 09:06	LDE	TAL SL
Total/NA	Analysis	9315		1	304077	04/18/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			300079	03/27/17 10:05	LDE	TAL SL
Total/NA	Analysis	9320		1	302768	04/11/17 11:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	304127	04/18/17 12:17	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 Wansley

TestAmerica Job ID: 400-135367-2  
 SDG: Gypsum Landfill

## Rad

### Prep Batch: 300067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total/NA	Water	PrecSep-21	
400-135367-2	GWA-4	Total/NA	Water	PrecSep-21	
400-135367-3	GWC-26	Total/NA	Water	PrecSep-21	
400-135367-4	GWA-1	Total/NA	Water	PrecSep-21	
400-135367-5	GWC-27	Total/NA	Water	PrecSep-21	
400-135367-6	FB-1	Total/NA	Water	PrecSep-21	
400-135367-7	GWA-2	Total/NA	Water	PrecSep-21	
400-135367-8	GWC-30	Total/NA	Water	PrecSep-21	
400-135367-9	DUP-1	Total/NA	Water	PrecSep-21	
400-135367-10	FERB-1	Total/NA	Water	PrecSep-21	
MB 160-300067/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-300067/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-76991-A-7-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-76991-A-7-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
400-135367-3 DU	GWC-26	Total/NA	Water	PrecSep-21	

### Prep Batch: 300079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135367-1	GWA-28	Total/NA	Water	PrecSep_0	
400-135367-2	GWA-4	Total/NA	Water	PrecSep_0	
400-135367-3	GWC-26	Total/NA	Water	PrecSep_0	
400-135367-4	GWA-1	Total/NA	Water	PrecSep_0	
400-135367-5	GWC-27	Total/NA	Water	PrecSep_0	
400-135367-6	FB-1	Total/NA	Water	PrecSep_0	
400-135367-7	GWA-2	Total/NA	Water	PrecSep_0	
400-135367-8	GWC-30	Total/NA	Water	PrecSep_0	
400-135367-9	DUP-1	Total/NA	Water	PrecSep_0	
400-135367-10	FERB-1	Total/NA	Water	PrecSep_0	
MB 160-300079/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-300079/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-76991-A-7-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-76991-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
400-135367-3 DU	GWC-26	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-300067/1-A**  
**Matrix: Water**  
**Analysis Batch: 304053**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300067**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04277	U	0.0654	0.0655	1.00	0.113	pCi/L	03/27/17 09:06	04/18/17 05:53	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	90.3					03/27/17 09:06	04/18/17 05:53	1		

**Lab Sample ID: LCS 160-300067/2-A**  
**Matrix: Water**  
**Analysis Batch: 304053**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 300067**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.23		1.09	1.00	0.130	pCi/L	90	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	89.4					03/27/17 09:06	04/18/17 05:53	1	

**Lab Sample ID: 240-76991-A-7-A MS**  
**Matrix: Water**  
**Analysis Batch: 304053**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 300067**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
						Uncert. (2σ+/-)					
Radium-226	0.171		11.4	10.32		1.10	1.00	0.0985	pCi/L	89	75 - 138
Carrier	MS MS		Limits			Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier		40 - 110							
	90.0					03/27/17 09:06	04/18/17 05:53	1			

**Lab Sample ID: 240-76991-A-7-B MSD**  
**Matrix: Water**  
**Analysis Batch: 304053**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 300067**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
						Uncert. (2σ+/-)							
Radium-226	0.171		11.4	9.998		1.07	1.00	0.121	pCi/L	87	75 - 138	0.15	1
Carrier	MSD MSD		Limits			Prepared	Analyzed	Dil Fac					
Ba Carrier	%Yield	Qualifier		40 - 110									
	89.4					03/27/17 09:06	04/18/17 05:53	1					

**Lab Sample ID: 400-135367-3 DU**  
**Matrix: Water**  
**Analysis Batch: 304053**

**Client Sample ID: GWC-26**  
**Prep Type: Total/NA**  
**Prep Batch: 300067**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total	RL	MDC	Unit	RER	RER Limit
					Uncert. (2σ+/-)					
Radium-226	0.0425	U	0.07328	U	0.0745	1.00	0.116	pCi/L	0.22	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: 400-135367-3 DU**  
**Matrix: Water**  
**Analysis Batch: 304053**

**Client Sample ID: GWC-26**  
**Prep Type: Total/NA**  
**Prep Batch: 300067**

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	84.7		40 - 110

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-300079/1-A**  
**Matrix: Water**  
**Analysis Batch: 302769**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300079**

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.06657	U	0.233	0.234	1.00	0.405	pCi/L	03/27/17 10:05	04/11/17 11:19	1
Carrier	%Yield	Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	90.3		40 - 110		03/27/17 10:05	04/11/17 11:19	1			
Y Carrier	88.2		40 - 110		03/27/17 10:05	04/11/17 11:19	1			

**Lab Sample ID: LCS 160-300079/2-A**  
**Matrix: Water**  
**Analysis Batch: 302769**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 300079**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.	
									Limits	
Radium-228	13.6	15.69		1.68	1.00	0.400	pCi/L	115	56 - 140	
Carrier	%Yield	LCS	Qualifier	Limits						
Ba Carrier	89.4			40 - 110						
Y Carrier	83.7			40 - 110						

**Lab Sample ID: 240-76991-A-7-C MS**  
**Matrix: Water**  
**Analysis Batch: 302769**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 300079**

Analyte	Sample Sample		Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.	
	Result	Qual									Limits	
Radium-228	0.186	U	13.6	15.62		1.68	1.00	0.384	pCi/L	114	45 - 150	
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	90.0		40 - 110									
Y Carrier	84.5		40 - 110									

**Lab Sample ID: 240-76991-A-7-D MSD**  
**Matrix: Water**  
**Analysis Batch: 302769**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 300079**

Analyte	Sample Sample		Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.		RER
	Result	Qual									Limits	RER	Limit
Radium-228	0.186	U	13.6	15.18		1.62	1.00	0.360	pCi/L	110	45 - 150	0.13	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
 SDG: Gypsum Landfill

Carrier	MSD		Limits
	%Yield	Qualifier	
Ba Carrier	89.4		40 - 110
Y Carrier	89.0		40 - 110

Lab Sample ID: 400-135367-3 DU  
 Matrix: Water  
 Analysis Batch: 302769

Client Sample ID: GWC-26  
 Prep Type: Total/NA  
 Prep Batch: 300079

Analyte	Sample		DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual						
Radium-228	0.0705	U	0.06791	U	0.211	1.00	0.367	pCi/L	0.01	1

Carrier	DU		Limits
	%Yield	Qualifier	
Ba Carrier	84.7		40 - 110
Y Carrier	91.6		40 - 110

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-135367-3 DU  
 Matrix: Water  
 Analysis Batch: 304127

Client Sample ID: GWC-26  
 Prep Type: Total/NA

Analyte	Sample		DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual						
Combined Radium 226 + 228	0.113	U	0.1412	U	0.223	5.00	0.367	pCi/L	0.07	



3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**Client Information**  
 Client Contact: Joju Abraham  
 Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State: GA, Zip: 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** T. Payne TP.C. Hurdle Ch.M. Thomas MT  
**Lab PM:** Whitmire, Cheyenne R  
**Carrier Tracking No(s):**  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (G=Grab)	Matrix (W=water, S=solid, O=overhead, B=other)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
					TDS - SM 2640C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		
GWA-28	3/16/17	1205	G	W	X	X	3	
GWA-4	3/16/17	1240	G	W	X	X	3	
GWC-26	3/16/17	1415	G	W	X	X	4	Extra radium bottle collected for lab QA/QC
GWA-1	3/16/17	1540	G	W	X	X	3	
GWC-27	3/16/17	1605	G	W	X	X	3	
FB-1	3/16/17	1505	G	W	X	X	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
**Deliverable Requested:** I, II, III, IV, Other (specify)

**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: 3/17/17  
**Relinquished by:** Date: 3/17/17  
**Relinquished by:** Date: 3/18/17  
**Relinquished by:** Date: 3/17/17

**Custody Seals Intact:** Δ Yes Δ No  
**Custody Seal No.:**



400-135367 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 - AsNeO2  
 P - Na2OAS  
 Q - Na2SO3  
 R - Na2SO4  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 X - EDTA  
 Y - EDA  
 Z - other (specify)

Received by: [Signature] Date: 3/17/17  
 Received by: [Signature] Date: 3/18/17  
 Received by: [Signature] Date: 3/17/17

Company: [Signature] Company: [Signature] Company: [Signature]

Cooler Temperature: [Signature] °C and Other Remarks: [Signature]

TestAmerica Pensacola  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

# Chain of Custody Record

TestAmerica  
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**Client Information**  
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: Plant Wansley - Gypsum Landfill  
Site: CCR

Sampler: T. Payne T. Payne, Thomas MT  
Phone: [Blank]  
Lab PM: Whitmire, Cheyenne R  
E-Mail: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s): [Blank]  
COC No: [Blank]  
Page: [Blank]  
Job #: [Blank]

**Analysis Requested**

Due Date Requested: [Blank]  
TAT Requested (days): [Blank]  
PO #: [Blank]  
WO #: [Blank]  
Project #: [Blank]  
SSOW#: [Blank]

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470  
TDS - SM 2540C ; Cl<sub>2</sub>, SO<sub>4</sub> - EPA 300  
Radium 226 & 228 - SW-846 9315 & 9320

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Semisolid, BIP-Tissue, A=Air)	Preservation Code	Field Filled Sample (See NO. 1)		Special Instructions/Note:
						Field Filled Sample (See NO. 1)	Total Number of Containers	
GWA-2	3/17/17	1040	G	W				
GWC-30	3/17/17	1220	G	W				
DUP-1	3/17/17	-	G	W				
FERB-1	3/17/17	1120	G	W				

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify) [Blank]

**Relinquished by:** [Signature]  
Date/Time: 3/17/17 1620  
**Received by:** [Signature]  
Date/Time: 3/17/17 1610  
Company: [Blank]

**Relinquished by:** [Signature]  
Date/Time: 3/17/17 1720  
**Received by:** [Signature]  
Date/Time: 3/18/17 0957  
Company: [Blank]

Cooler Temperature(s) °C and Other Remarks: [Blank]

Custody Seal No.: [Blank]  
Δ Yes Δ No

Method of Shipment: [Blank]

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135367-2  
SDG Number: Gypsum Landfill

**Login Number: 135367**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	



# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

## 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

## 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	03-31-17 *
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 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135367-2  
SDG: Gypsum Landfill

## 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	02-28-18
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 *

\* 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: 400-135669-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/17/2017 2:55:29 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Job ID: 400-135669-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-135669-1

#### HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWC-7 (400-135669-5) and GWC-14 (400-135669-15). Elevated reporting limits (RLs) are provided.

#### Metals

Method(s) 6020: The serial dilution performed for the following sample associated with batch 348533 was outside control limits for Arsenic and Cobalt: (400-135667-A-10-B SD)

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 347599 and 348184 and analytical batch 348533 were performed at the same dilution. Due to the additional level of analyte present in the post digestion spike, the concentration of Molybdenum in the PDS was above the instrument calibration range. The data have been reported and qualified.

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 348297 and analytical batch 348836 were performed at the same dilution. Due to the additional level of analyte present in the post digestion spike, the concentration Molybdenum in the PDS was above the instrument calibration range. The data has been reported and qualified.





# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-5

## Lab Sample ID: 400-135669-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.7		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.024		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0063		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-6

## Lab Sample ID: 400-135669-2

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	13		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	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.012		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0033	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000073	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-34

## Lab Sample ID: 400-135669-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		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	1.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000079	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-135669-4

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	2.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	34		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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-7

## Lab Sample ID: 400-135669-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.20		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	81		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.083		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	56		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0016	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.014		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-2

## Lab Sample ID: 400-135669-6

No Detections.

## Client Sample ID: DUP-2

## Lab Sample ID: 400-135669-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		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	1.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0053		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33

## Lab Sample ID: 400-135669-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.1		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	28		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0096		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00077	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0032		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0037		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.00017	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-25

## Lab Sample ID: 400-135669-9

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-25 (Continued)

## Lab Sample ID: 400-135669-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	23		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	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.022		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0035	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
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-11

## Lab Sample ID: 400-135669-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		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	1.5		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	0.24		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.013		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: GWC-31

## Lab Sample ID: 400-135669-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0024	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00067	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.023		0.0050	0.0032	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-8

## Lab Sample ID: 400-135669-12

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	21		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	33		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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-8 (Continued)

## Lab Sample ID: 400-135669-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.025		0.0025	0.00040	mg/L	5		6020	Total
Lithium	0.0070		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000072	J B	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-9

## Lab Sample ID: 400-135669-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.2		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	29		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	0.12		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.071		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.091		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0050		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0059	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-12

## Lab Sample ID: 400-135669-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.17	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	23		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	37		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	220		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-135669-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	68		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	10		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.44		0.050	0.021	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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-14 (Continued)

## Lab Sample ID: 400-135669-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	18		0.25	0.13	mg/L	5		6020	Total
Cobalt	0.14		0.0025	0.00040	mg/L	5		6020	Recoverable Total
Lithium	0.0036	J	0.0050	0.0032	mg/L	5		6020	Recoverable Total
Thallium	0.00040	J	0.00050	0.000085	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	250		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-135669-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total
Boron	0.042	J	0.050	0.021	mg/L	5		6020	Recoverable Total
Calcium	9.9		0.25	0.13	mg/L	5		6020	Recoverable Total
Cobalt	0.0013	J	0.0025	0.00040	mg/L	5		6020	Recoverable Total
Lithium	0.0069		0.0050	0.0032	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-135669-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		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
Sulfate	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00067	J	0.0013	0.00046	mg/L	5		6020	Total
Barium	0.0032		0.0025	0.00049	mg/L	5		6020	Recoverable Total
Calcium	3.9		0.25	0.13	mg/L	5		6020	Recoverable Total
Molybdenum	0.0047	J	0.015	0.00085	mg/L	5		6020	Recoverable Total
Selenium	0.0021		0.0013	0.00024	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FB-2

## Lab Sample ID: 400-135669-18

No Detections.

## Client Sample ID: FERB-3

## Lab Sample ID: 400-135669-19

No Detections.

## Client Sample ID: DUP-3

## Lab Sample ID: 400-135669-20

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: DUP-3 (Continued)

## Lab Sample ID: 400-135669-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	1.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.047	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	10		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	0.0074		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-135669-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.3		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	28		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	24		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0026		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.011		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-16

## Lab Sample ID: 400-135669-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		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	6.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0026		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: GWC-32

## Lab Sample ID: 400-135669-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	9.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0021	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0016	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	12		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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-32 (Continued)

## Lab Sample ID: 400-135669-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0012	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.018		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-17

## Lab Sample ID: 400-135669-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-135669-25

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
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	88		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-135669-26

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
Sulfate	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.079		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0016	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0041	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-3

## Lab Sample ID: 400-135669-27

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135669-1	GWC-5	Water	03/22/17 11:20	03/24/17 08:28
400-135669-2	GWC-6	Water	03/22/17 13:00	03/24/17 08:28
400-135669-3	GWC-34	Water	03/22/17 13:00	03/24/17 08:28
400-135669-4	GWC-35	Water	03/22/17 14:30	03/24/17 08:28
400-135669-5	GWC-7	Water	03/22/17 14:45	03/24/17 08:28
400-135669-6	FERB-2	Water	03/22/17 13:45	03/24/17 08:28
400-135669-7	DUP-2	Water	03/22/17 00:00	03/24/17 08:28
400-135669-8	GWC-33	Water	03/23/17 09:20	03/25/17 08:49
400-135669-9	GWC-25	Water	03/23/17 09:55	03/25/17 08:49
400-135669-10	GWC-11	Water	03/23/17 11:00	03/25/17 08:49
400-135669-11	GWC-31	Water	03/23/17 11:00	03/25/17 08:49
400-135669-12	GWC-8	Water	03/23/17 11:40	03/25/17 08:49
400-135669-13	GWC-9	Water	03/23/17 13:40	03/25/17 08:49
400-135669-14	GWC-12	Water	03/23/17 13:50	03/25/17 08:49
400-135669-15	GWC-14	Water	03/23/17 15:35	03/25/17 08:49
400-135669-16	GWC-15	Water	03/23/17 15:45	03/25/17 08:49
400-135669-17	GWC-13	Water	03/23/17 15:55	03/25/17 08:49
400-135669-18	FB-2	Water	03/23/17 11:50	03/25/17 08:49
400-135669-19	FERB-3	Water	03/23/17 14:50	03/25/17 08:49
400-135669-20	DUP-3	Water	03/23/17 00:00	03/25/17 08:49
400-135669-21	GWC-10	Water	03/24/17 09:00	03/25/17 08:49
400-135669-22	GWC-16	Water	03/24/17 09:30	03/25/17 08:49
400-135669-23	GWC-32	Water	03/24/17 10:00	03/25/17 08:49
400-135669-24	GWC-17	Water	03/24/17 10:22	03/25/17 08:49
400-135669-25	GWC-18	Water	03/24/17 10:30	03/25/17 08:49
400-135669-26	GWC-19	Water	03/24/17 12:05	03/25/17 08:49
400-135669-27	FB-3	Water	03/24/17 10:00	03/25/17 08:49

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 03/22/17 11:20**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>8.7</b>		1.0	0.89	mg/L			03/26/17 21:04	1
Fluoride	<0.082		0.20	0.082	mg/L			03/26/17 21:04	1
<b>Sulfate</b>	<b>13</b>		1.0	0.70	mg/L			03/26/17 21:04	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		03/29/17 11:48	04/04/17 13:28	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/29/17 11:48	04/04/17 13:28	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		03/29/17 11:48	04/04/17 13:28	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:28	5
Boron	<0.021		0.050	0.021	mg/L		03/29/17 11:48	04/04/17 13:28	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:28	5
<b>Calcium</b>	<b>17</b>		0.25	0.13	mg/L		03/29/17 11:48	04/04/17 13:28	5
<b>Chromium</b>	<b>0.024</b>		0.0025	0.0011	mg/L		03/29/17 11:48	04/04/17 13:28	5
<b>Cobalt</b>	<b>0.0063</b>		0.0025	0.00040	mg/L		03/29/17 11:48	04/04/17 13:28	5
Lead	<0.00035		0.0013	0.00035	mg/L		03/29/17 11:48	04/04/17 13:28	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/29/17 11:48	04/04/17 13:28	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/29/17 11:48	04/04/17 13:28	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/29/17 11:48	04/04/17 13:28	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/29/17 11:48	04/04/17 13:28	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		03/30/17 09:58	04/04/17 13:36	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 03/22/17 13:00**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.2</b>		1.0	0.89	mg/L			03/26/17 21:27	1
Fluoride	<0.082		0.20	0.082	mg/L			03/26/17 21:27	1
<b>Sulfate</b>	<b>13</b>		1.0	0.70	mg/L			03/26/17 21:27	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		03/29/17 11:48	04/04/17 13:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/29/17 11:48	04/04/17 13:33	5
<b>Barium</b>	<b>0.048</b>		0.0025	0.00049	mg/L		03/29/17 11:48	04/04/17 13:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:33	5
Boron	<0.021		0.050	0.021	mg/L		03/29/17 11:48	04/04/17 13:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:33	5
<b>Calcium</b>	<b>12</b>		0.25	0.13	mg/L		03/29/17 11:48	04/04/17 13:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/29/17 11:48	04/04/17 13:33	5
<b>Cobalt</b>	<b>0.012</b>		0.0025	0.00040	mg/L		03/29/17 11:48	04/04/17 13:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		03/29/17 11:48	04/04/17 13:33	5
<b>Lithium</b>	<b>0.0033</b>	<b>J</b>	0.0050	0.0032	mg/L		03/29/17 11:48	04/04/17 13:33	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/29/17 11:48	04/04/17 13:33	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/29/17 11:48	04/04/17 13:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/29/17 11:48	04/04/17 13:33	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000073</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/30/17 09:58	04/04/17 13:54	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>120</b>		5.0	3.4	mg/L			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**  
**Date Collected: 03/22/17 13:00**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			03/26/17 21:49	1
Fluoride	0.14	J	0.20	0.082	mg/L			03/26/17 21:49	1
Sulfate	1.5		1.0	0.70	mg/L			03/26/17 21:49	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		03/29/17 11:48	04/04/17 13:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/29/17 11:48	04/04/17 13:37	5
Barium	0.010		0.0025	0.00049	mg/L		03/29/17 11:48	04/04/17 13:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:37	5
Boron	<0.021		0.050	0.021	mg/L		03/29/17 11:48	04/04/17 13:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:37	5
Calcium	2.7		0.25	0.13	mg/L		03/29/17 11:48	04/04/17 13:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/29/17 11:48	04/04/17 13:37	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/29/17 11:48	04/04/17 13:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		03/29/17 11:48	04/04/17 13:37	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		03/29/17 11:48	04/04/17 13:37	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/29/17 11:48	04/04/17 13:37	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/29/17 11:48	04/04/17 13:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/29/17 11:48	04/04/17 13:37	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		03/30/17 09:58	04/04/17 13:57	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		5.0	3.4	mg/L			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**

**Date Collected: 03/22/17 14:30**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-4**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.9</b>		1.0	0.89	mg/L			03/26/17 22:12	1
Fluoride	<0.082		0.20	0.082	mg/L			03/26/17 22:12	1
<b>Sulfate</b>	<b>2.4</b>		1.0	0.70	mg/L			03/26/17 22:12	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		03/29/17 11:48	04/04/17 13:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/29/17 11:48	04/04/17 13:42	5
<b>Barium</b>	<b>0.019</b>		0.0025	0.00049	mg/L		03/29/17 11:48	04/04/17 13:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:42	5
Boron	<0.021		0.050	0.021	mg/L		03/29/17 11:48	04/04/17 13:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:42	5
<b>Calcium</b>	<b>1.8</b>		0.25	0.13	mg/L		03/29/17 11:48	04/04/17 13:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/29/17 11:48	04/04/17 13:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/29/17 11:48	04/04/17 13:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		03/29/17 11:48	04/04/17 13:42	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/29/17 11:48	04/04/17 13:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/29/17 11:48	04/04/17 13:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/29/17 11:48	04/04/17 13:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/29/17 11:48	04/04/17 13:42	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		03/30/17 09:58	04/04/17 13:59	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>34</b>		5.0	3.4	mg/L			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**  
**Date Collected: 03/22/17 14:45**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-5**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		1.0	0.89	mg/L			03/26/17 23:44	1
Fluoride	0.20		0.20	0.082	mg/L			03/26/17 23:44	1
Sulfate	81		5.0	3.5	mg/L			03/27/17 22:36	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		03/29/17 11:48	04/04/17 13:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/29/17 11:48	04/04/17 13:46	5
Barium	0.083		0.0025	0.00049	mg/L		03/29/17 11:48	04/04/17 13:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:46	5
Boron	<0.021		0.050	0.021	mg/L		03/29/17 11:48	04/04/17 13:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 13:46	5
Calcium	56		0.25	0.13	mg/L		03/29/17 11:48	04/04/17 13:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/29/17 11:48	04/04/17 13:46	5
Cobalt	0.0016	J	0.0025	0.00040	mg/L		03/29/17 11:48	04/04/17 13:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		03/29/17 11:48	04/04/17 13:46	5
Lithium	0.014		0.0050	0.0032	mg/L		03/29/17 11:48	04/04/17 13:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/29/17 11:48	04/04/17 13:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/29/17 11:48	04/04/17 13:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/29/17 11:48	04/04/17 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		03/30/17 09:58	04/04/17 14:00	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		5.0	3.4	mg/L			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**  
**Date Collected: 03/22/17 13:45**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-6**  
**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			03/27/17 01:38	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 01:38	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 01:38	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		04/03/17 10:32	04/04/17 17:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/04/17 17:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/03/17 10:32	04/04/17 17:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 17:21	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/04/17 17:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 17:21	5
Calcium	<0.13		0.25	0.13	mg/L		04/03/17 10:32	04/04/17 17:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/04/17 17:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/03/17 10:32	04/04/17 17:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/04/17 17:21	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/03/17 10:32	04/04/17 17:21	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/04/17 17:21	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/04/17 17:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/04/17 17:21	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		03/30/17 09:58	04/04/17 14:01	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			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Date Collected: 03/22/17 00:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-7**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			03/27/17 02:00	1
Fluoride	0.14	J	0.20	0.082	mg/L			03/27/17 02:00	1
Sulfate	1.5		1.0	0.70	mg/L			03/27/17 02:00	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		04/03/17 10:32	04/04/17 17:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/04/17 17:25	5
Barium	0.011		0.0025	0.00049	mg/L		04/03/17 10:32	04/04/17 17:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 17:25	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/04/17 17:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 17:25	5
Calcium	2.7		0.25	0.13	mg/L		04/03/17 10:32	04/04/17 17:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/04/17 17:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/03/17 10:32	04/04/17 17:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/04/17 17:25	5
Lithium	0.0053		0.0050	0.0032	mg/L		04/03/17 10:32	04/04/17 17:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/04/17 17:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/04/17 17:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/04/17 17:25	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		03/30/17 09:58	04/04/17 14:02	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		5.0	3.4	mg/L			03/27/17 17:24	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 03/23/17 09:20**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-8**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			03/27/17 02:23	1
Fluoride	3.1		0.20	0.082	mg/L			03/27/17 02:23	1
Sulfate	28		1.0	0.70	mg/L			03/27/17 02:23	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		04/03/17 10:32	04/04/17 17:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/04/17 17:30	5
Barium	0.0096		0.0025	0.00049	mg/L		04/03/17 10:32	04/04/17 17:30	5
Beryllium	0.00077	J	0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 17:30	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/04/17 17:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 17:30	5
Calcium	15		0.25	0.13	mg/L		04/03/17 10:32	04/04/17 17:30	5
Chromium	0.0032		0.0025	0.0011	mg/L		04/03/17 10:32	04/04/17 17:30	5
Cobalt	0.0037		0.0025	0.00040	mg/L		04/03/17 10:32	04/04/17 17:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/04/17 17:30	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/03/17 10:32	04/04/17 17:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/04/17 17:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/04/17 17:30	5
Thallium	0.00017	J	0.00050	0.000085	mg/L		04/03/17 10:32	04/04/17 17:30	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		03/30/17 09:58	04/04/17 14:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 03/23/17 09:55**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-9**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.2</b>		1.0	0.89	mg/L			03/27/17 02:46	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 02:46	1
<b>Sulfate</b>	<b>23</b>		1.0	0.70	mg/L			03/27/17 02:46	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		04/03/17 10:32	04/06/17 11:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 11:37	5
<b>Barium</b>	<b>0.032</b>		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 11:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:37	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 11:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:37	5
<b>Calcium</b>	<b>13</b>		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 11:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 11:37	5
<b>Cobalt</b>	<b>0.022</b>		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 11:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 11:37	5
<b>Lithium</b>	<b>0.0035</b>	<b>J</b>	0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 11:37	5
<b>Molybdenum</b>	<b>0.0015</b>	<b>J</b>	0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 11:37	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 11:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 11:37	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		03/30/17 09:58	04/04/17 14:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>96</b>		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-11**  
**Date Collected: 03/23/17 11:00**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-10**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.89	mg/L			03/27/17 03:09	1
Fluoride	0.097	J	0.20	0.082	mg/L			03/27/17 03:09	1
Sulfate	1.5		1.0	0.70	mg/L			03/27/17 03:09	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		04/03/17 10:32	04/06/17 11:42	5
Arsenic	0.00076	J	0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 11:42	5
Barium	0.24		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 11:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:42	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 11:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:42	5
Calcium	9.3		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 11:42	5
Chromium	0.0020	J	0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 11:42	5
Cobalt	0.013		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 11:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 11:42	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 11:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 11:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 11:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 11:42	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		03/30/17 09:58	04/04/17 14:06	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-31**

**Date Collected: 03/23/17 11:00**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-11**

**Matrix: Water**

**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		04/03/17 10:32	04/06/17 11:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 11:46	5
<b>Barium</b>	<b>0.0024</b>	<b>J</b>	0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 11:46	5
<b>Beryllium</b>	<b>0.00067</b>	<b>J</b>	0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:46	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 11:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:46	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 11:46	5
<b>Chromium</b>	<b>0.0022</b>	<b>J</b>	0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 11:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 11:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 11:46	5
<b>Lithium</b>	<b>0.023</b>		0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 11:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 11:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 11:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 11:46	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		03/30/17 09:58	04/04/17 14:07	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 03/23/17 11:40**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-12**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.9</b>		1.0	0.89	mg/L			03/27/17 03:32	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 03:32	1
<b>Sulfate</b>	<b>21</b>		1.0	0.70	mg/L			03/27/17 03:32	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		04/03/17 10:32	04/06/17 11:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 11:51	5
<b>Barium</b>	<b>0.053</b>		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 11:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:51	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 11:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:51	5
<b>Calcium</b>	<b>33</b>		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 11:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 11:51	5
<b>Cobalt</b>	<b>0.025</b>		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 11:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 11:51	5
<b>Lithium</b>	<b>0.0070</b>		0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 11:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 11:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 11:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 11:51	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.000072</b>	<b>J B</b>	0.00020	0.000070	mg/L		03/30/17 09:58	04/04/17 14:18	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>190</b>		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 03/23/17 13:40**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-13**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.2		1.0	0.89	mg/L			03/27/17 03:55	1
Fluoride	0.12	J	0.20	0.082	mg/L			03/27/17 03:55	1
Sulfate	29		1.0	0.70	mg/L			03/27/17 03:55	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		04/03/17 10:32	04/06/17 11:55	5
Arsenic	0.00076	J	0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 11:55	5
Barium	0.12		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 11:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:55	5
Boron	0.071		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 11:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 11:55	5
Calcium	19		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 11:55	5
Chromium	0.0021	J	0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 11:55	5
Cobalt	0.091		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 11:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 11:55	5
Lithium	0.0050		0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 11:55	5
Molybdenum	0.0059	J	0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 11:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 11:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 11:55	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		03/30/17 09:58	04/04/17 14:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Date Collected: 03/23/17 13:50**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-14**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		1.0	0.89	mg/L			03/27/17 04:17	1
Fluoride	0.17	J	0.20	0.082	mg/L			03/27/17 04:17	1
Sulfate	23		1.0	0.70	mg/L			03/27/17 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		04/03/17 10:32	04/06/17 12:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 12:00	5
Barium	0.019		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 12:00	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 12:00	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 12:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 12:00	5
Calcium	37		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 12:00	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 12:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 12:00	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 12:00	5
Lithium	0.0041	J	0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 12:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 12:00	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 12:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 12:00	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		03/30/17 09:58	04/04/17 14:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Date Collected: 03/23/17 15:35**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-15**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>68</b>		5.0	4.5	mg/L			03/27/17 22:59	5
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 05:26	1
<b>Sulfate</b>	<b>10</b>		1.0	0.70	mg/L			03/27/17 05:26	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		04/03/17 10:32	04/06/17 12:04	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 12:04	5
<b>Barium</b>	<b>0.11</b>		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 12:04	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 12:04	5
<b>Boron</b>	<b>0.44</b>		0.050	0.021	mg/L		04/03/17 10:32	04/06/17 12:04	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 12:04	5
<b>Calcium</b>	<b>18</b>		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 12:04	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 12:04	5
<b>Cobalt</b>	<b>0.14</b>		0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 12:04	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 12:04	5
<b>Lithium</b>	<b>0.0036</b>	<b>J</b>	0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 12:04	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 12:04	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 12:04	5
<b>Thallium</b>	<b>0.00040</b>	<b>J</b>	0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 12:04	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		03/30/17 09:58	04/04/17 14:22	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>250</b>		5.0	3.4	mg/L			03/29/17 16:09	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Date Collected: 03/23/17 15:45**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-16**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.6</b>		1.0	0.89	mg/L			03/27/17 05:49	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 05:49	1
<b>Sulfate</b>	<b>1.6</b>		1.0	0.70	mg/L			03/27/17 05:49	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		04/03/17 10:32	04/06/17 12:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/06/17 12:09	5
<b>Barium</b>	<b>0.011</b>		0.0025	0.00049	mg/L		04/03/17 10:32	04/06/17 12:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 12:09	5
<b>Boron</b>	<b>0.042</b>	<b>J</b>	0.050	0.021	mg/L		04/03/17 10:32	04/06/17 12:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/06/17 12:09	5
<b>Calcium</b>	<b>9.9</b>		0.25	0.13	mg/L		04/03/17 10:32	04/06/17 12:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/06/17 12:09	5
<b>Cobalt</b>	<b>0.0013</b>	<b>J</b>	0.0025	0.00040	mg/L		04/03/17 10:32	04/06/17 12:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/06/17 12:09	5
<b>Lithium</b>	<b>0.0069</b>		0.0050	0.0032	mg/L		04/03/17 10:32	04/06/17 12:09	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/06/17 12:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/06/17 12:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/06/17 12:09	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		03/30/17 09:58	04/04/17 14:23	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Date Collected: 03/23/17 15:55**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-17**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			03/27/17 06:34	1
Fluoride	0.088	J	0.20	0.082	mg/L			03/27/17 06:34	1
Sulfate	2.6		1.0	0.70	mg/L			03/27/17 06:34	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		04/04/17 09:01	04/06/17 14:59	5
Arsenic	0.00067	J	0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 14:59	5
Barium	0.0032		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 14:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:59	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 14:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:59	5
Calcium	3.9		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 14:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 14:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 14:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 14:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 14:59	5
Molybdenum	0.0047	J	0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 14:59	5
Selenium	0.0021		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 14:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 14:59	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		03/30/17 09:58	04/04/17 14:24	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 03/23/17 11:50**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-18**  
**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			03/27/17 06:57	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 06:57	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 06:57	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		04/04/17 09:01	04/06/17 15:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 15:41	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 15:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:41	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 15:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:41	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 15:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 15:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 15:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 15:41	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 15:41	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 15:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 15:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 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		03/30/17 09:58	04/04/17 14:25	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			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**  
**Date Collected: 03/23/17 14:50**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-19**  
**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			03/27/17 07:20	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 07:20	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 07:20	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		04/04/17 09:01	04/06/17 15:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 15:45	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 15:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:45	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 15:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:45	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 15:45	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 15:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 15:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 15:45	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 15:45	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 15:45	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 15:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 15:45	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		03/30/17 09:58	04/04/17 14:27	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			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 03/23/17 00:00**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-20**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.6</b>		1.0	0.89	mg/L			03/27/17 07:43	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 07:43	1
<b>Sulfate</b>	<b>1.6</b>		1.0	0.70	mg/L			03/27/17 07:43	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		04/04/17 09:01	04/06/17 15:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 15:50	5
<b>Barium</b>	<b>0.010</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 15:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:50	5
<b>Boron</b>	<b>0.047</b>	<b>J</b>	0.050	0.021	mg/L		04/04/17 09:01	04/06/17 15:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:50	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 15:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 15:50	5
<b>Cobalt</b>	<b>0.0012</b>	<b>J</b>	0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 15:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 15:50	5
<b>Lithium</b>	<b>0.0074</b>		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 15:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 15:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 15:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 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		03/30/17 09:58	04/04/17 14:28	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			03/28/17 16:21	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Date Collected: 03/24/17 09:00**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-21**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		1.0	0.89	mg/L			03/27/17 08:06	1
Fluoride	1.3		0.20	0.082	mg/L			03/27/17 08:06	1
Sulfate	28		1.0	0.70	mg/L			03/27/17 08:06	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		04/04/17 09:01	04/06/17 15:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 15:55	5
Barium	0.012		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 15:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:55	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 15:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:55	5
Calcium	24		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 15:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 15:55	5
Cobalt	0.0026		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 15:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 15:55	5
Lithium	0.011		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 15:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 15:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 15:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 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		04/01/17 13:01	04/03/17 11:59	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Date Collected: 03/24/17 09:30**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-22**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			03/27/17 08:28	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 08:28	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 08:28	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		04/04/17 09:01	04/06/17 15:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 15:59	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 15:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:59	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 15:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 15:59	5
<b>Calcium</b>	<b>6.3</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 15:59	5
<b>Chromium</b>	<b>0.0026</b>		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 15:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 15:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 15:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 15:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 15:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 15:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 15:59	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		04/01/17 13:01	04/03/17 12:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Date Collected: 03/24/17 10:00**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-23**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			03/27/17 08:51	1
Fluoride	3.2		0.20	0.082	mg/L			03/27/17 08:51	1
Sulfate	9.2		1.0	0.70	mg/L			03/27/17 08:51	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		04/04/17 09:01	04/06/17 13:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:25	5
Barium	0.0021	J	0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:25	5
Beryllium	0.0016	J	0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:25	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:25	5
Calcium	12		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:25	5
Cobalt	0.0012	J	0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:25	5
Lithium	0.018		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:25	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		04/01/17 13:01	04/03/17 12:18	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			03/29/17 16:09	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**  
**Date Collected: 03/24/17 10:22**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-24**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.1</b>		1.0	0.89	mg/L			03/27/17 19:01	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 19:01	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 19:01	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		04/04/17 09:01	04/06/17 13:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:30	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:30	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:30	5
<b>Calcium</b>	<b>7.5</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:30	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:30	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		04/01/17 13:01	04/03/17 12:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>110</b>		5.0	3.4	mg/L			03/29/17 16:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**

**Date Collected: 03/24/17 10:30**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-25**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			03/27/17 19:24	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 19:24	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 19:24	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		04/04/17 09:01	04/06/17 13:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:34	5
<b>Barium</b>	<b>0.037</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:34	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:34	5
<b>Calcium</b>	<b>6.4</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:34	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:34	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		04/01/17 13:01	04/03/17 12:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>88</b>		5.0	3.4	mg/L			03/30/17 16:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**  
**Date Collected: 03/24/17 12:05**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-26**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.1</b>		1.0	0.89	mg/L			03/27/17 17:30	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 17:30	1
<b>Sulfate</b>	<b>2.5</b>		1.0	0.70	mg/L			03/27/17 17:30	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		04/04/17 09:01	04/06/17 13:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:39	5
<b>Barium</b>	<b>0.079</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:39	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:39	5
<b>Calcium</b>	<b>8.7</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:39	5
<b>Cobalt</b>	<b>0.0016</b>	<b>J</b>	0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:39	5
<b>Lithium</b>	<b>0.0041</b>	<b>J</b>	0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:39	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/01/17 13:01	04/03/17 12:22	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>82</b>		5.0	3.4	mg/L			03/30/17 16:14	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 03/24/17 10:00**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-27**  
**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			03/27/17 18:38	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 18:38	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 18:38	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		04/04/17 09:01	04/06/17 13:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:43	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:43	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:43	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:43	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:43	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		04/01/17 13:01	04/03/17 12:23	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			03/30/17 16:14	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## 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.
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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 03/22/17 11:20**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347175	03/26/17 21:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			347599	03/29/17 11:48	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 13:28	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

**Client Sample ID: GWC-6**

**Date Collected: 03/22/17 13:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347175	03/26/17 21:27	TAJ	TAL PEN
Total Recoverable	Prep	3005A			347599	03/29/17 11:48	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 13:33	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 13:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

**Client Sample ID: GWC-34**

**Date Collected: 03/22/17 13:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347175	03/26/17 21:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			347599	03/29/17 11:48	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 13:37	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 13:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

**Client Sample ID: GWC-35**

**Date Collected: 03/22/17 14:30**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347175	03/26/17 22:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			347599	03/29/17 11:48	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 13:42	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 13:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Date Collected: 03/22/17 14:45**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/26/17 23:44	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	347314	03/27/17 22:36	TAJ	TAL PEN
Total Recoverable	Prep	3005A			347599	03/29/17 11:48	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 13:46	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

**Client Sample ID: FERB-2**

**Date Collected: 03/22/17 13:45**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 01:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 17:21	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

**Client Sample ID: DUP-2**

**Date Collected: 03/22/17 00:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 02:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 17:25	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347255	03/27/17 17:24	VLS	TAL PEN

**Client Sample ID: GWC-33**

**Date Collected: 03/23/17 09:20**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 02:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348533	04/04/17 17:30	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:04	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-135669-8**

**Date Collected: 03/23/17 09:20**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-135669-9**

**Date Collected: 03/23/17 09:55**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 02:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 11:37	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-135669-10**

**Date Collected: 03/23/17 11:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 03:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 11:42	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-135669-11**

**Date Collected: 03/23/17 11:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 11:46	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:07	JAP	TAL PEN

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-135669-12**

**Date Collected: 03/23/17 11:40**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 03:32	TAJ	TAL PEN



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 03/23/17 11:40**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-12**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 11:51	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-9**

**Date Collected: 03/23/17 13:40**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-13**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 03:55	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 11:55	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-12**

**Date Collected: 03/23/17 13:50**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-14**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 04:17	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 12:00	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-14**

**Date Collected: 03/23/17 15:35**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-15**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 05:26	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	347314	03/27/17 22:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 12:04	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-135669-16**

**Date Collected: 03/23/17 15:45**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 05:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348184	04/03/17 10:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 12:09	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-135669-17**

**Date Collected: 03/23/17 15:55**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 06:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 14:59	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: FB-2**

**Lab Sample ID: 400-135669-18**

**Date Collected: 03/23/17 11:50**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 06:57	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 15:41	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-135669-19**

**Date Collected: 03/23/17 14:50**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 07:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 15:45	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-135669-20**

**Date Collected: 03/23/17 00:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 07:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 15:50	DRE	TAL PEN
Total/NA	Prep	7470A			347729	03/30/17 09:58	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348433	04/04/17 14:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347445	03/28/17 16:21	TET	TAL PEN

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-135669-21**

**Date Collected: 03/24/17 09:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 08:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 15:55	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 11:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-135669-22**

**Date Collected: 03/24/17 09:30**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 08:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 15:59	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 12:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-135669-23**

**Date Collected: 03/24/17 10:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347223	03/27/17 08:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:25	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 12:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-135669-24**

**Date Collected: 03/24/17 10:22**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347314	03/27/17 19:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:30	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 12:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347584	03/29/17 16:09	TET	TAL PEN

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-135669-25**

**Date Collected: 03/24/17 10:30**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347314	03/27/17 19:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:34	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 12:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347801	03/30/17 16:14	TET	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-135669-26**

**Date Collected: 03/24/17 12:05**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347314	03/27/17 17:30	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:39	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 12:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347801	03/30/17 16:14	TET	TAL PEN

**Client Sample ID: FB-3**

**Lab Sample ID: 400-135669-27**

**Date Collected: 03/24/17 10:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	347314	03/27/17 18:38	TAJ	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:43	DRE	TAL PEN
Total/NA	Prep	7470A			347747	04/01/17 13:01	DN1	TAL PEN
Total/NA	Analysis	7470A		1	348263	04/03/17 12:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	347801	03/30/17 16:14	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 347175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total/NA	Water	300.0	
400-135669-2	GWC-6	Total/NA	Water	300.0	
400-135669-3	GWC-34	Total/NA	Water	300.0	
400-135669-4	GWC-35	Total/NA	Water	300.0	
MB 400-347175/4	Method Blank	Total/NA	Water	300.0	
LCS 400-347175/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-347175/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-135644-H-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-135644-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 347223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-5	GWC-7	Total/NA	Water	300.0	
400-135669-6	FERB-2	Total/NA	Water	300.0	
400-135669-7	DUP-2	Total/NA	Water	300.0	
400-135669-8	GWC-33	Total/NA	Water	300.0	
400-135669-9	GWC-25	Total/NA	Water	300.0	
400-135669-10	GWC-11	Total/NA	Water	300.0	
400-135669-12	GWC-8	Total/NA	Water	300.0	
400-135669-13	GWC-9	Total/NA	Water	300.0	
400-135669-14	GWC-12	Total/NA	Water	300.0	
400-135669-15	GWC-14	Total/NA	Water	300.0	
400-135669-16	GWC-15	Total/NA	Water	300.0	
400-135669-17	GWC-13	Total/NA	Water	300.0	
400-135669-18	FB-2	Total/NA	Water	300.0	
400-135669-19	FERB-3	Total/NA	Water	300.0	
400-135669-20	DUP-3	Total/NA	Water	300.0	
400-135669-21	GWC-10	Total/NA	Water	300.0	
400-135669-22	GWC-16	Total/NA	Water	300.0	
400-135669-23	GWC-32	Total/NA	Water	300.0	
MB 400-347223/34	Method Blank	Total/NA	Water	300.0	
LCS 400-347223/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-347223/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-135669-5 MS	GWC-7	Total/NA	Water	300.0	
400-135669-5 MSD	GWC-7	Total/NA	Water	300.0	

### Analysis Batch: 347314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-5	GWC-7	Total/NA	Water	300.0	
400-135669-15	GWC-14	Total/NA	Water	300.0	
400-135669-24	GWC-17	Total/NA	Water	300.0	
400-135669-25	GWC-18	Total/NA	Water	300.0	
400-135669-26	GWC-19	Total/NA	Water	300.0	
400-135669-27	FB-3	Total/NA	Water	300.0	
MB 400-347314/11	Method Blank	Total/NA	Water	300.0	
LCS 400-347314/12	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-347314/13	Lab Control Sample Dup	Total/NA	Water	300.0	
400-135669-26 MS	GWC-19	Total/NA	Water	300.0	
400-135669-26 MSD	GWC-19	Total/NA	Water	300.0	

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Metals

### Prep Batch: 347599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total Recoverable	Water	3005A	
400-135669-2	GWC-6	Total Recoverable	Water	3005A	
400-135669-3	GWC-34	Total Recoverable	Water	3005A	
400-135669-4	GWC-35	Total Recoverable	Water	3005A	
400-135669-5	GWC-7	Total Recoverable	Water	3005A	
MB 400-347599/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-347599/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135662-A-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-135662-A-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 347729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total/NA	Water	7470A	
400-135669-2	GWC-6	Total/NA	Water	7470A	
400-135669-3	GWC-34	Total/NA	Water	7470A	
400-135669-4	GWC-35	Total/NA	Water	7470A	
400-135669-5	GWC-7	Total/NA	Water	7470A	
400-135669-6	FERB-2	Total/NA	Water	7470A	
400-135669-7	DUP-2	Total/NA	Water	7470A	
400-135669-8	GWC-33	Total/NA	Water	7470A	
400-135669-9	GWC-25	Total/NA	Water	7470A	
400-135669-10	GWC-11	Total/NA	Water	7470A	
400-135669-11	GWC-31	Total/NA	Water	7470A	
400-135669-12	GWC-8	Total/NA	Water	7470A	
400-135669-13	GWC-9	Total/NA	Water	7470A	
400-135669-14	GWC-12	Total/NA	Water	7470A	
400-135669-15	GWC-14	Total/NA	Water	7470A	
400-135669-16	GWC-15	Total/NA	Water	7470A	
400-135669-17	GWC-13	Total/NA	Water	7470A	
400-135669-18	FB-2	Total/NA	Water	7470A	
400-135669-19	FERB-3	Total/NA	Water	7470A	
400-135669-20	DUP-3	Total/NA	Water	7470A	
MB 400-347729/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-347729/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135669-1 MS	GWC-5	Total/NA	Water	7470A	
400-135669-1 MSD	GWC-5	Total/NA	Water	7470A	

### Prep Batch: 347747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-21	GWC-10	Total/NA	Water	7470A	
400-135669-22	GWC-16	Total/NA	Water	7470A	
400-135669-23	GWC-32	Total/NA	Water	7470A	
400-135669-24	GWC-17	Total/NA	Water	7470A	
400-135669-25	GWC-18	Total/NA	Water	7470A	
400-135669-26	GWC-19	Total/NA	Water	7470A	
400-135669-27	FB-3	Total/NA	Water	7470A	
MB 400-347747/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-347747/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135669-21 MS	GWC-10	Total/NA	Water	7470A	
400-135669-21 MSD	GWC-10	Total/NA	Water	7470A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 348184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-6	FERB-2	Total Recoverable	Water	3005A	
400-135669-7	DUP-2	Total Recoverable	Water	3005A	
400-135669-8	GWC-33	Total Recoverable	Water	3005A	
400-135669-9	GWC-25	Total Recoverable	Water	3005A	
400-135669-10	GWC-11	Total Recoverable	Water	3005A	
400-135669-11	GWC-31	Total Recoverable	Water	3005A	
400-135669-12	GWC-8	Total Recoverable	Water	3005A	
400-135669-13	GWC-9	Total Recoverable	Water	3005A	
400-135669-14	GWC-12	Total Recoverable	Water	3005A	
400-135669-15	GWC-14	Total Recoverable	Water	3005A	
400-135669-16	GWC-15	Total Recoverable	Water	3005A	
MB 400-348184/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-348184/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135667-A-10-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-135667-A-10-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 348263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-21	GWC-10	Total/NA	Water	7470A	347747
400-135669-22	GWC-16	Total/NA	Water	7470A	347747
400-135669-23	GWC-32	Total/NA	Water	7470A	347747
400-135669-24	GWC-17	Total/NA	Water	7470A	347747
400-135669-25	GWC-18	Total/NA	Water	7470A	347747
400-135669-26	GWC-19	Total/NA	Water	7470A	347747
400-135669-27	FB-3	Total/NA	Water	7470A	347747
MB 400-347747/14-A	Method Blank	Total/NA	Water	7470A	347747
LCS 400-347747/15-A	Lab Control Sample	Total/NA	Water	7470A	347747
400-135669-21 MS	GWC-10	Total/NA	Water	7470A	347747
400-135669-21 MSD	GWC-10	Total/NA	Water	7470A	347747

### Prep Batch: 348297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-17	GWC-13	Total Recoverable	Water	3005A	
400-135669-18	FB-2	Total Recoverable	Water	3005A	
400-135669-19	FERB-3	Total Recoverable	Water	3005A	
400-135669-20	DUP-3	Total Recoverable	Water	3005A	
400-135669-21	GWC-10	Total Recoverable	Water	3005A	
400-135669-22	GWC-16	Total Recoverable	Water	3005A	
400-135669-23	GWC-32	Total Recoverable	Water	3005A	
400-135669-24	GWC-17	Total Recoverable	Water	3005A	
400-135669-25	GWC-18	Total Recoverable	Water	3005A	
400-135669-26	GWC-19	Total Recoverable	Water	3005A	
400-135669-27	FB-3	Total Recoverable	Water	3005A	
MB 400-348297/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-348297/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135669-17 MS	GWC-13	Total Recoverable	Water	3005A	
400-135669-17 MSD	GWC-13	Total Recoverable	Water	3005A	

### Analysis Batch: 348433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total/NA	Water	7470A	347729

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 348433 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-2	GWC-6	Total/NA	Water	7470A	347729
400-135669-3	GWC-34	Total/NA	Water	7470A	347729
400-135669-4	GWC-35	Total/NA	Water	7470A	347729
400-135669-5	GWC-7	Total/NA	Water	7470A	347729
400-135669-6	FERB-2	Total/NA	Water	7470A	347729
400-135669-7	DUP-2	Total/NA	Water	7470A	347729
400-135669-8	GWC-33	Total/NA	Water	7470A	347729
400-135669-9	GWC-25	Total/NA	Water	7470A	347729
400-135669-10	GWC-11	Total/NA	Water	7470A	347729
400-135669-11	GWC-31	Total/NA	Water	7470A	347729
400-135669-12	GWC-8	Total/NA	Water	7470A	347729
400-135669-13	GWC-9	Total/NA	Water	7470A	347729
400-135669-14	GWC-12	Total/NA	Water	7470A	347729
400-135669-15	GWC-14	Total/NA	Water	7470A	347729
400-135669-16	GWC-15	Total/NA	Water	7470A	347729
400-135669-17	GWC-13	Total/NA	Water	7470A	347729
400-135669-18	FB-2	Total/NA	Water	7470A	347729
400-135669-19	FERB-3	Total/NA	Water	7470A	347729
400-135669-20	DUP-3	Total/NA	Water	7470A	347729
MB 400-347729/14-A	Method Blank	Total/NA	Water	7470A	347729
LCS 400-347729/15-A	Lab Control Sample	Total/NA	Water	7470A	347729
400-135669-1 MS	GWC-5	Total/NA	Water	7470A	347729
400-135669-1 MSD	GWC-5	Total/NA	Water	7470A	347729

### Analysis Batch: 348533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total Recoverable	Water	6020	347599
400-135669-2	GWC-6	Total Recoverable	Water	6020	347599
400-135669-3	GWC-34	Total Recoverable	Water	6020	347599
400-135669-4	GWC-35	Total Recoverable	Water	6020	347599
400-135669-5	GWC-7	Total Recoverable	Water	6020	347599
400-135669-6	FERB-2	Total Recoverable	Water	6020	348184
400-135669-7	DUP-2	Total Recoverable	Water	6020	348184
400-135669-8	GWC-33	Total Recoverable	Water	6020	348184
MB 400-347599/1-A ^5	Method Blank	Total Recoverable	Water	6020	347599
MB 400-348184/1-A ^5	Method Blank	Total Recoverable	Water	6020	348184
LCS 400-347599/2-A	Lab Control Sample	Total Recoverable	Water	6020	347599
LCS 400-348184/2-A	Lab Control Sample	Total Recoverable	Water	6020	348184
400-135662-A-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	347599
400-135662-A-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	347599
400-135667-A-10-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	348184
400-135667-A-10-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	348184

### Analysis Batch: 348836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-9	GWC-25	Total Recoverable	Water	6020	348184
400-135669-10	GWC-11	Total Recoverable	Water	6020	348184
400-135669-11	GWC-31	Total Recoverable	Water	6020	348184
400-135669-12	GWC-8	Total Recoverable	Water	6020	348184
400-135669-13	GWC-9	Total Recoverable	Water	6020	348184
400-135669-14	GWC-12	Total Recoverable	Water	6020	348184

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 348836 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-15	GWC-14	Total Recoverable	Water	6020	348184
400-135669-16	GWC-15	Total Recoverable	Water	6020	348184
400-135669-17	GWC-13	Total Recoverable	Water	6020	348297
400-135669-18	FB-2	Total Recoverable	Water	6020	348297
400-135669-19	FERB-3	Total Recoverable	Water	6020	348297
400-135669-20	DUP-3	Total Recoverable	Water	6020	348297
400-135669-21	GWC-10	Total Recoverable	Water	6020	348297
400-135669-22	GWC-16	Total Recoverable	Water	6020	348297
400-135669-23	GWC-32	Total Recoverable	Water	6020	348297
400-135669-24	GWC-17	Total Recoverable	Water	6020	348297
400-135669-25	GWC-18	Total Recoverable	Water	6020	348297
400-135669-26	GWC-19	Total Recoverable	Water	6020	348297
400-135669-27	FB-3	Total Recoverable	Water	6020	348297
MB 400-348297/1-A ^5	Method Blank	Total Recoverable	Water	6020	348297
LCS 400-348297/2-A	Lab Control Sample	Total Recoverable	Water	6020	348297
400-135669-17 MS	GWC-13	Total Recoverable	Water	6020	348297
400-135669-17 MSD	GWC-13	Total Recoverable	Water	6020	348297

## General Chemistry

### Analysis Batch: 347255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-7	DUP-2	Total/NA	Water	SM 2540C	
MB 400-347255/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-347255/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135509-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 347445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total/NA	Water	SM 2540C	
400-135669-2	GWC-6	Total/NA	Water	SM 2540C	
400-135669-3	GWC-34	Total/NA	Water	SM 2540C	
400-135669-4	GWC-35	Total/NA	Water	SM 2540C	
400-135669-5	GWC-7	Total/NA	Water	SM 2540C	
400-135669-6	FERB-2	Total/NA	Water	SM 2540C	
400-135669-20	DUP-3	Total/NA	Water	SM 2540C	
MB 400-347445/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-347445/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135509-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-135639-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 347584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-8	GWC-33	Total/NA	Water	SM 2540C	
400-135669-9	GWC-25	Total/NA	Water	SM 2540C	
400-135669-10	GWC-11	Total/NA	Water	SM 2540C	
400-135669-12	GWC-8	Total/NA	Water	SM 2540C	
400-135669-13	GWC-9	Total/NA	Water	SM 2540C	
400-135669-14	GWC-12	Total/NA	Water	SM 2540C	
400-135669-15	GWC-14	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## General Chemistry (Continued)

### Analysis Batch: 347584 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-16	GWC-15	Total/NA	Water	SM 2540C	
400-135669-17	GWC-13	Total/NA	Water	SM 2540C	
400-135669-18	FB-2	Total/NA	Water	SM 2540C	
400-135669-19	FERB-3	Total/NA	Water	SM 2540C	
400-135669-21	GWC-10	Total/NA	Water	SM 2540C	
400-135669-22	GWC-16	Total/NA	Water	SM 2540C	
400-135669-23	GWC-32	Total/NA	Water	SM 2540C	
400-135669-24	GWC-17	Total/NA	Water	SM 2540C	
MB 400-347584/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-347584/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135669-8 DU	GWC-33	Total/NA	Water	SM 2540C	
400-135669-22 DU	GWC-16	Total/NA	Water	SM 2540C	

### Analysis Batch: 347801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-25	GWC-18	Total/NA	Water	SM 2540C	
400-135669-26	GWC-19	Total/NA	Water	SM 2540C	
400-135669-27	FB-3	Total/NA	Water	SM 2540C	
MB 400-347801/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-347801/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135669-25 DU	GWC-18	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-347175/4**  
**Matrix: Water**  
**Analysis Batch: 347175**

**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			03/26/17 11:10	1
Fluoride	<0.082		0.20	0.082	mg/L			03/26/17 11:10	1
Sulfate	<0.70		1.0	0.70	mg/L			03/26/17 11:10	1

**Lab Sample ID: LCS 400-347175/5**  
**Matrix: Water**  
**Analysis Batch: 347175**

**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	10.7		mg/L		107	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-347175/6**  
**Matrix: Water**  
**Analysis Batch: 347175**

**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	9.81		mg/L		98	90 - 110	2	15
Fluoride	10.0	10.6		mg/L		106	90 - 110	1	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	1	15

**Lab Sample ID: 400-135644-H-1 MS**  
**Matrix: Water**  
**Analysis Batch: 347175**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	26.3		mg/L		98	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	13		10.0	22.9		mg/L		102	80 - 120

**Lab Sample ID: 400-135644-H-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 347175**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17		10.0	26.3		mg/L		98	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	1	20
Sulfate	13		10.0	22.9		mg/L		101	80 - 120	0	20

**Lab Sample ID: MB 400-347223/34**  
**Matrix: Water**  
**Analysis Batch: 347223**

**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			03/26/17 22:35	1
Fluoride	<0.082		0.20	0.082	mg/L			03/26/17 22:35	1
Sulfate	<0.70		1.0	0.70	mg/L			03/26/17 22:35	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-347223/35**  
**Matrix: Water**  
**Analysis Batch: 347223**

**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	9.81		mg/L		98	90 - 110
Fluoride	10.0	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-347223/36**  
**Matrix: Water**  
**Analysis Batch: 347223**

**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	9.91		mg/L		99	90 - 110	1	15
Fluoride	10.0	10.7		mg/L		107	90 - 110	1	15
Sulfate	10.0	9.97		mg/L		100	90 - 110	1	15

**Lab Sample ID: 400-135669-5 MS**  
**Matrix: Water**  
**Analysis Batch: 347223**

**Client Sample ID: GWC-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	28		10.0	36.8		mg/L		92	80 - 120
Fluoride	0.20		10.0	10.5		mg/L		103	80 - 120
Sulfate	73	E	10.0	80.5	E 4	mg/L		78	80 - 120

**Lab Sample ID: 400-135669-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 347223**

**Client Sample ID: GWC-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	28		10.0	36.9		mg/L		93	80 - 120	0	20
Fluoride	0.20		10.0	10.5		mg/L		103	80 - 120	0	20
Sulfate	73	E	10.0	80.8	E 4	mg/L		81	80 - 120	0	20

**Lab Sample ID: MB 400-347314/11**  
**Matrix: Water**  
**Analysis Batch: 347314**

**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			03/27/17 16:22	1
Fluoride	<0.082		0.20	0.082	mg/L			03/27/17 16:22	1
Sulfate	<0.70		1.0	0.70	mg/L			03/27/17 16:22	1

**Lab Sample ID: LCS 400-347314/12**  
**Matrix: Water**  
**Analysis Batch: 347314**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-347314/13**  
**Matrix: Water**  
**Analysis Batch: 347314**

**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	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

**Lab Sample ID: 400-135669-26 MS**  
**Matrix: Water**  
**Analysis Batch: 347314**

**Client Sample ID: GWC-19**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.1		10.0	11.6		mg/L		95	80 - 120		
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120		
Sulfate	2.5		10.0	12.8		mg/L		103	80 - 120		

**Lab Sample ID: 400-135669-26 MSD**  
**Matrix: Water**  
**Analysis Batch: 347314**

**Client Sample ID: GWC-19**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.1		10.0	11.6		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120	0	20
Sulfate	2.5		10.0	12.8		mg/L		103	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-347599/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 347599**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		03/29/17 11:48	04/04/17 11:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		03/29/17 11:48	04/04/17 11:15	5
Barium	<0.00049		0.0025	0.00049	mg/L		03/29/17 11:48	04/04/17 11:15	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 11:15	5
Boron	<0.021		0.050	0.021	mg/L		03/29/17 11:48	04/04/17 11:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		03/29/17 11:48	04/04/17 11:15	5
Calcium	<0.13		0.25	0.13	mg/L		03/29/17 11:48	04/04/17 11:15	5
Chromium	<0.0011		0.0025	0.0011	mg/L		03/29/17 11:48	04/04/17 11:15	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		03/29/17 11:48	04/04/17 11:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		03/29/17 11:48	04/04/17 11:15	5
Lithium	<0.0032		0.0050	0.0032	mg/L		03/29/17 11:48	04/04/17 11:15	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		03/29/17 11:48	04/04/17 11:15	5
Selenium	<0.00024		0.0013	0.00024	mg/L		03/29/17 11:48	04/04/17 11:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		03/29/17 11:48	04/04/17 11:15	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 400-347599/2-A**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 347599**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0544		mg/L		109	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0470		mg/L		94	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Boron	0.100	0.0985		mg/L		99	80 - 120
Cadmium	0.0500	0.0508		mg/L		102	80 - 120
Calcium	5.00	4.58		mg/L		92	80 - 120
Chromium	0.0500	0.0491		mg/L		98	80 - 120
Cobalt	0.0500	0.0499		mg/L		100	80 - 120
Lead	0.0500	0.0503		mg/L		101	80 - 120
Lithium	0.0500	0.0514		mg/L		103	80 - 120
Molybdenum	0.100	0.0994		mg/L		99	80 - 120
Selenium	0.0500	0.0512		mg/L		102	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

**Lab Sample ID: 400-135662-A-2-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 347599**

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	0.0540		mg/L		108	75 - 125
Barium	0.0041		0.0500	0.0520		mg/L		96	75 - 125
Beryllium	<0.00034		0.0500	0.0529		mg/L		106	75 - 125
Boron	0.076		0.100	0.185		mg/L		109	75 - 125
Cadmium	<0.00034		0.0500	0.0515		mg/L		103	75 - 125
Calcium	4.1		5.00	8.79		mg/L		94	75 - 125
Chromium	<0.0011		0.0500	0.0500		mg/L		100	75 - 125
Cobalt	0.0032		0.0500	0.0556		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0500		mg/L		100	75 - 125
Lithium	<0.0032		0.0500	0.0520		mg/L		104	75 - 125
Molybdenum	0.0039	J	0.100	0.106		mg/L		102	75 - 125
Selenium	0.0019		0.0500	0.0583		mg/L		113	75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125

**Lab Sample ID: 400-135662-A-2-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 347599**

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	0.0526		mg/L		105	75 - 125	3	20
Barium	0.0041		0.0500	0.0512		mg/L		94	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0523		mg/L		105	75 - 125	1	20
Boron	0.076		0.100	0.187		mg/L		110	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0515		mg/L		103	75 - 125	0	20
Calcium	4.1		5.00	8.89		mg/L		96	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0507		mg/L		101	75 - 125	1	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-135662-A-2-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 347599**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	0.0032		0.0500	0.0546		mg/L		103	75 - 125	2	20
Lead	<0.00035		0.0500	0.0502		mg/L		100	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0510		mg/L		102	75 - 125	2	20
Molybdenum	0.0039	J	0.100	0.100		mg/L		96	75 - 125	6	20
Selenium	0.0019		0.0500	0.0545		mg/L		105	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0104		mg/L		104	75 - 125	1	20

**Lab Sample ID: MB 400-348184/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348184**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		04/03/17 10:32	04/04/17 15:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/03/17 10:32	04/04/17 15:55	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/03/17 10:32	04/04/17 15:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 15:55	5
Boron	<0.021		0.050	0.021	mg/L		04/03/17 10:32	04/04/17 15:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/03/17 10:32	04/04/17 15:55	5
Calcium	<0.13		0.25	0.13	mg/L		04/03/17 10:32	04/04/17 15:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/03/17 10:32	04/04/17 15:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/03/17 10:32	04/04/17 15:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/03/17 10:32	04/04/17 15:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/03/17 10:32	04/04/17 15:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/03/17 10:32	04/04/17 15:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/03/17 10:32	04/04/17 15:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/03/17 10:32	04/04/17 15:55	5

**Lab Sample ID: LCS 400-348184/2-A**  
**Matrix: Water**  
**Analysis Batch: 348533**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348184**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Added	Result				Qualifier
Antimony	0.0500	0.0540		mg/L		108	80 - 120
Arsenic	0.0500	0.0507		mg/L		101	80 - 120
Barium	0.0500	0.0469		mg/L		94	80 - 120
Beryllium	0.0500	0.0518		mg/L		104	80 - 120
Boron	0.100	0.100		mg/L		100	80 - 120
Cadmium	0.0500	0.0501		mg/L		100	80 - 120
Calcium	5.00	4.63		mg/L		93	80 - 120
Chromium	0.0500	0.0497		mg/L		99	80 - 120
Cobalt	0.0500	0.0507		mg/L		101	80 - 120
Lead	0.0500	0.0511		mg/L		102	80 - 120
Lithium	0.0500	0.0530		mg/L		106	80 - 120
Molybdenum	0.100	0.0979		mg/L		98	80 - 120
Selenium	0.0500	0.0515		mg/L		103	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-135667-A-10-C MS ^5**

**Matrix: Water**

**Analysis Batch: 348533**

**Client Sample ID: Matrix Spike**

**Prep Type: Total Recoverable**

**Prep Batch: 348184**

Analyte	Sample	Sample Qualifier	Spike Added	MS	Unit	D	%Rec	Limits	%Rec.
	Result			MS					
Antimony	<0.0010		0.0500	0.0569	mg/L		114	75 - 125	
Arsenic	0.037		0.0500	0.0899	mg/L		106	75 - 125	
Barium	0.0068		0.0500	0.0547	mg/L		96	75 - 125	
Beryllium	<0.00034		0.0500	0.0554	mg/L		111	75 - 125	
Boron	<0.021		0.100	0.124	mg/L		124	75 - 125	
Cadmium	<0.00034		0.0500	0.0513	mg/L		103	75 - 125	
Calcium	0.26		5.00	4.92	mg/L		93	75 - 125	
Chromium	<0.0011		0.0500	0.0506	mg/L		101	75 - 125	
Cobalt	0.15		0.0500	0.199	mg/L		102	75 - 125	
Lead	<0.00035		0.0500	0.0502	mg/L		100	75 - 125	
Lithium	<0.0032		0.0500	0.0508	mg/L		102	75 - 125	
Molybdenum	0.0063	J	0.100	0.109	mg/L		103	75 - 125	
Selenium	0.0022		0.0500	0.0571	mg/L		110	75 - 125	
Thallium	<0.000085		0.0100	0.0105	mg/L		105	75 - 125	

**Lab Sample ID: 400-135667-A-10-D MSD ^5**

**Matrix: Water**

**Analysis Batch: 348533**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 348184**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result			MSD						
Antimony	<0.0010		0.0500	0.0545	mg/L		109	75 - 125	4	20
Arsenic	0.037		0.0500	0.0880	mg/L		102	75 - 125	2	20
Barium	0.0068		0.0500	0.0543	mg/L		95	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0558	mg/L		112	75 - 125	1	20
Boron	<0.021		0.100	0.112	mg/L		112	75 - 125	11	20
Cadmium	<0.00034		0.0500	0.0511	mg/L		102	75 - 125	0	20
Calcium	0.26		5.00	4.89	mg/L		93	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0493	mg/L		99	75 - 125	3	20
Cobalt	0.15		0.0500	0.202	mg/L		107	75 - 125	1	20
Lead	<0.00035		0.0500	0.0502	mg/L		100	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0505	mg/L		101	75 - 125	1	20
Molybdenum	0.0063	J	0.100	0.103	mg/L		97	75 - 125	6	20
Selenium	0.0022		0.0500	0.0532	mg/L		102	75 - 125	7	20
Thallium	<0.000085		0.0100	0.0106	mg/L		106	75 - 125	1	20

**Lab Sample ID: MB 400-348297/1-A ^5**

**Matrix: Water**

**Analysis Batch: 348836**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 348297**

Analyte	MB	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result								
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/17 09:01	04/06/17 14:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 14:50	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 14:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:50	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 14:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:50	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 14:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 14:50	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-348297/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 14:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 14:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 14:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 14:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 14:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 14:50	5

**Lab Sample ID: LCS 400-348297/2-A**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0541		mg/L		108	80 - 120
Arsenic	0.0500	0.0508		mg/L		102	80 - 120
Barium	0.0500	0.0483		mg/L		97	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Boron	0.100	0.104		mg/L		104	80 - 120
Cadmium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Chromium	0.0500	0.0486		mg/L		97	80 - 120
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Lead	0.0500	0.0512		mg/L		102	80 - 120
Lithium	0.0500	0.0510		mg/L		102	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

**Lab Sample ID: 400-135669-17 MS**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: GWC-13**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0569		mg/L		114	75 - 125
Arsenic	0.00067	J	0.0500	0.0524		mg/L		103	75 - 125
Barium	0.0032		0.0500	0.0528		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0539		mg/L		108	75 - 125
Boron	<0.021		0.100	0.120		mg/L		120	75 - 125
Cadmium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125
Calcium	3.9		5.00	8.50		mg/L		93	75 - 125
Chromium	<0.0011		0.0500	0.0547		mg/L		109	75 - 125
Cobalt	<0.00040		0.0500	0.0526		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0521		mg/L		104	75 - 125
Lithium	<0.0032		0.0500	0.0520		mg/L		104	75 - 125
Molybdenum	0.0047	J	0.100	0.113		mg/L		108	75 - 125
Selenium	0.0021		0.0500	0.0567		mg/L		109	75 - 125
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-135669-17 MSD**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: GWC-13**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0555		mg/L		111	75 - 125	2	20
Arsenic	0.00067	J	0.0500	0.0529		mg/L		105	75 - 125	1	20
Barium	0.0032		0.0500	0.0515		mg/L		97	75 - 125	3	20
Beryllium	<0.00034		0.0500	0.0524		mg/L		105	75 - 125	3	20
Boron	<0.021		0.100	0.123		mg/L		123	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	0	20
Calcium	3.9		5.00	8.45		mg/L		92	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0538		mg/L		108	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0534		mg/L		107	75 - 125	2	20
Lead	<0.00035		0.0500	0.0528		mg/L		106	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0538		mg/L		108	75 - 125	3	20
Molybdenum	0.0047	J	0.100	0.104		mg/L		99	75 - 125	8	20
Selenium	0.0021		0.0500	0.0541		mg/L		104	75 - 125	5	20
Thallium	<0.000085		0.0100	0.0110		mg/L		110	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-347729/14-A**  
**Matrix: Water**  
**Analysis Batch: 348433**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 347729**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000797	J	0.00020	0.000070	mg/L		03/30/17 09:54	04/04/17 13:34	1

**Lab Sample ID: LCS 400-347729/15-A**  
**Matrix: Water**  
**Analysis Batch: 348433**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 347729**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000978		mg/L		97	80 - 120

**Lab Sample ID: 400-135669-1 MS**  
**Matrix: Water**  
**Analysis Batch: 348433**

**Client Sample ID: GWC-5**  
**Prep Type: Total/NA**  
**Prep Batch: 347729**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00195		mg/L		97	80 - 120

**Lab Sample ID: 400-135669-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 348433**

**Client Sample ID: GWC-5**  
**Prep Type: Total/NA**  
**Prep Batch: 347729**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00194		mg/L		96	80 - 120	1	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: MB 400-347747/14-A**  
**Matrix: Water**  
**Analysis Batch: 348263**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 347747**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/01/17 13:01	04/03/17 11:56	1

**Lab Sample ID: LCS 400-347747/15-A**  
**Matrix: Water**  
**Analysis Batch: 348263**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 347747**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000991		mg/L		98	80 - 120

**Lab Sample ID: 400-135669-21 MS**  
**Matrix: Water**  
**Analysis Batch: 348263**

**Client Sample ID: GWC-10**  
**Prep Type: Total/NA**  
**Prep Batch: 347747**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00185		mg/L		92	80 - 120

**Lab Sample ID: 400-135669-21 MSD**  
**Matrix: Water**  
**Analysis Batch: 348263**

**Client Sample ID: GWC-10**  
**Prep Type: Total/NA**  
**Prep Batch: 347747**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00187		mg/L		93	80 - 120	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-347255/1**  
**Matrix: Water**  
**Analysis Batch: 347255**

**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			03/27/17 17:24	1

**Lab Sample ID: LCS 400-347255/2**  
**Matrix: Water**  
**Analysis Batch: 347255**

**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	262		mg/L		89	78 - 122

**Lab Sample ID: 400-135509-B-2 DU**  
**Matrix: Water**  
**Analysis Batch: 347255**

**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	22		<3.4		mg/L		NC	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: MB 400-347445/1**  
**Matrix: Water**  
**Analysis Batch: 347445**

**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			03/28/17 16:21	1

**Lab Sample ID: LCS 400-347445/2**  
**Matrix: Water**  
**Analysis Batch: 347445**

**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: 400-135509-B-1 DU**  
**Matrix: Water**  
**Analysis Batch: 347445**

**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: 400-135639-A-2 DU**  
**Matrix: Water**  
**Analysis Batch: 347445**

**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	270		274		mg/L		0	5

**Lab Sample ID: MB 400-347584/1**  
**Matrix: Water**  
**Analysis Batch: 347584**

**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			03/29/17 16:09	1

**Lab Sample ID: LCS 400-347584/2**  
**Matrix: Water**  
**Analysis Batch: 347584**

**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	294		mg/L		100	78 - 122

**Lab Sample ID: 400-135669-8 DU**  
**Matrix: Water**  
**Analysis Batch: 347584**

**Client Sample ID: GWC-33**  
**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

**Lab Sample ID: 400-135669-22 DU**  
**Matrix: Water**  
**Analysis Batch: 347584**

**Client Sample ID: GWC-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	100		104		mg/L		0	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-1  
 SDG: Gypsum Landfill

**Lab Sample ID: MB 400-347801/1**  
**Matrix: Water**  
**Analysis Batch: 347801**

**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			03/30/17 16:14	1

**Lab Sample ID: LCS 400-347801/2**  
**Matrix: Water**  
**Analysis Batch: 347801**

**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	268		mg/L		91	78 - 122

**Lab Sample ID: 400-135669-25 DU**  
**Matrix: Water**  
**Analysis Batch: 347801**

**Client Sample ID: GWC-18**  
**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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**

Sampler: J. McCrossen, J.M.C. Hurdle Chm, Thomas MT  
 Lab P#:  
 E-Mail: Whitmore, Cheyenne R  
 Phone:  
 E-Mail: cheyenne.whitmore@testamericainc.com

**Company:**

Southern Company  
 Address: 2411 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-506-7239  
 Email: J.Abraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Due Date Requested:**

TAT Requested (days):

**Analysis Requested**

Carrier Tracking No(s):  
 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:

**Special Instructions/Note:**

Extra radium bottle collected for lab QA/QC

400-135669 COC



COE No:

Carrier Tracking No(s):

Lab P#:

E-Mail:

Phone:

Company:

681-Atlanta

Sample Identification	Sample Date	Sample Time (G=Grab)	Sample Type (C=Comp, G=Grab)	Matrix (Water, Soil, Sludge, Other)	Analysis Requested	Special Instructions/Note
GWC-5	3/22/17	1120	G	W	Meats - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320	
GWC-6	3/22/17	1300	G	W		
GWC-34	3/22/17	1300	G	W		
GWC-35	3/22/17	1430	G	W		
GWC-7	3/22/17	1445	G	W		
FERB-2	3/22/17	1345	G	W		
DUP-2	3/22/17	--	G	W		

**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: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: 3/23/17 1310 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date: 3/24/17 1630 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes - Δ No

Color Temperature(s) °C and Other Remarks: 47°C, 2.9°C, 3.2°C



<b>Client Information</b> 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: Plant Wansley - Gypsum Landfill Site: CCR		Sampler: T. Payne TP, C. Hurdle et, M. Thomas M Phone: Lab PWT: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: Page: Job #:							
<b>Analysis Requested</b> Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:				Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:							
<b>Sample Identification</b> Sample ID Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Preservation Code		Field Filtered Sample (Yes or No) Performance (SP) (Yes or No) Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320		Total Number of Containers Special Instructions/Note: insufficient volume for TDS and Radium samples Extra radium sample collected for lab QA/QC							
GWC-33	3/23/17	0920	G	W	X	X	X	X	X	3	
GWC-25	3/23/17	0955	G	W	X	X	X	X	X	3	
GWC-11	3/23/17	1100	G	W	X	X	X	X	X	3	
GWC-31	3/23/17	1100	G	W	X	X	X	X	X	3	
GWC-8	3/23/17	1140	G	W	X	X	X	X	X	3	
GWC-9	3/23/17	1340	G	W	X	X	X	X	X	3	
GWC-12	3/23/17	1350	G	W	X	X	X	X	X	3	
GWC-14	3/23/17	1535	G	W	X	X	X	X	X	3	
GWC-15	3/23/17	1545	G	W	X	X	X	X	X	3	
GWC-13	3/23/17	1555	G	W	X	X	X	X	X	3	
FB-2	3/23/17	1150	G	W	X	X	X	X	X	3	
FERB-3	3/23/17	1450	G	W	X	X	X	X	X	3	
DUP-3	3/23/17	-	G	W	X	X	X	X	X	3	
<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/> Poison B											
Deliverable Requested: I, II, III, IV, Other (specify)											
Empty Kit Relinquished by: Date:											
Relinquished by: Date/Time: Company:											
Relinquished by: Date/Time: Company:											
Relinquished by: Date/Time: Company:											
Relinquished by: Date/Time: Company:											
Custody Seals Intact: Custody Seal No.:											

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For Months

Special Instructions/QC Requirements:  
 Method of Shipment:  
 Received by: Date/Time: Company: *ZKE 3/24/17 1505 TA*  
 Received by: Date/Time: Company: *ZKE 3/25/17 0849 TA-RW*  
 Received by: Date/Time: Company:

Cooler Temperature(s) °C and Other Remarks:





**Chain of Custody Record**

**681-Atlanta**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** T. Payne (P, C, Hurdle of, M, Thomas kr)  
**Lab PM:** Whitmire, Cheyenne R  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Carrier Tracking No(s):**  
**Page:**  
**Job #:**

**Analysis Requested**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, ET=Tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C, Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWC-10	3/24/17	0900	G	W	X	X	X	X	X	3	
GWC-16	3/24/17	0930	G	W	X	X	X	X	X	3	
GWC-32	3/24/17	1000	G	W	X	X	X	X	X	3	
GWC-17	3/24/17	1022	G	W	X	X	X	X	X	3	
GWC-18	3/24/17	1030	G	W	X	X	X	X	X	3	
GWC-19	3/24/17	1205	G	W	X	X	X	X	X	3	
FB-3	3/24/17	1000	G	W	X	X	X	X	X	3	

**Preservation Codes:**  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 Other:  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4-5  
 Z - other (specify)

**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: 3/24/17 1503 Company: ERM  
**Relinquished by:** \_\_\_\_\_ Date/Time: 3/24/17 1740 Company: ERM  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Method of Shipment:** \_\_\_\_\_  
**Received by:** \_\_\_\_\_ Date/Time: 3/24/17 1503 Company: ERM  
**Received by:** \_\_\_\_\_ Date/Time: 3/25/17 0849 Company: ERM  
**Received by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seals Intact:**  **Custody Seal No.:** \_\_\_\_\_

**cooler Temperature(s) °C and Other Remarks:**



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135669-1  
SDG Number: Gypsum Landfill

**Login Number: 135669**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	4.7°C, 2.4°C, 3.2°C IR-7, 3.6°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 Wansley

TestAmerica Job ID: 400-135669-1  
SDG: Gypsum Landfill

## 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: 400-135669-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/26/2017 4:11:33 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135669-1	GWC-5	Water	03/22/17 11:20	03/24/17 08:28
400-135669-2	GWC-6	Water	03/22/17 13:00	03/24/17 08:28
400-135669-3	GWC-34	Water	03/22/17 13:00	03/24/17 08:28
400-135669-4	GWC-35	Water	03/22/17 14:30	03/24/17 08:28
400-135669-5	GWC-7	Water	03/22/17 14:45	03/24/17 08:28
400-135669-6	FERB-2	Water	03/22/17 13:45	03/24/17 08:28
400-135669-7	DUP-2	Water	03/22/17 00:00	03/24/17 08:28
400-135669-8	GWC-33	Water	03/23/17 09:20	03/25/17 08:49
400-135669-9	GWC-25	Water	03/23/17 09:55	03/25/17 08:49
400-135669-10	GWC-11	Water	03/23/17 11:00	03/25/17 08:49
400-135669-12	GWC-8	Water	03/23/17 11:40	03/25/17 08:49
400-135669-13	GWC-9	Water	03/23/17 13:40	03/25/17 08:49
400-135669-14	GWC-12	Water	03/23/17 13:50	03/25/17 08:49
400-135669-15	GWC-14	Water	03/23/17 15:35	03/25/17 08:49
400-135669-16	GWC-15	Water	03/23/17 15:45	03/25/17 08:49
400-135669-17	GWC-13	Water	03/23/17 15:55	03/25/17 08:49
400-135669-18	FB-2	Water	03/23/17 11:50	03/25/17 08:49
400-135669-19	FERB-3	Water	03/23/17 14:50	03/25/17 08:49
400-135669-20	DUP-3	Water	03/23/17 00:00	03/25/17 08:49
400-135669-21	GWC-10	Water	03/24/17 09:00	03/25/17 08:49
400-135669-22	GWC-16	Water	03/24/17 09:30	03/25/17 08:49
400-135669-23	GWC-32	Water	03/24/17 10:00	03/25/17 08:49
400-135669-24	GWC-17	Water	03/24/17 10:22	03/25/17 08:49
400-135669-25	GWC-18	Water	03/24/17 10:30	03/25/17 08:49
400-135669-26	GWC-19	Water	03/24/17 12:05	03/25/17 08:49
400-135669-27	FB-3	Water	03/24/17 10:00	03/25/17 08:49

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 03/22/17 11:20**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-1**  
**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0422	U	0.0636	0.0637	1.00	0.109	pCi/L	03/29/17 08:28	04/20/17 05:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					03/29/17 08:28	04/20/17 05:45	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0763	U	0.198	0.198	1.00	0.342	pCi/L	03/29/17 08:50	04/13/17 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					03/29/17 08:50	04/13/17 15:01	1
Y Carrier	84.9		40 - 110					03/29/17 08:50	04/13/17 15:01	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	0.118	U	0.208	0.208	5.00	0.342	pCi/L		04/25/17 13:10	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 03/22/17 13:00**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-2**  
**Matrix: Water**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0133	U	0.0469	0.0469	1.00	0.108	pCi/L	03/29/17 08:28	04/20/17 05:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/29/17 08:28	04/20/17 05:45	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.250	U	0.173	0.174	1.00	0.356	pCi/L	03/29/17 08:50	04/13/17 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/29/17 08:50	04/13/17 15:01	1
Y Carrier	87.5		40 - 110					03/29/17 08:50	04/13/17 15:01	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	-0.263	U	0.179	0.180	5.00	0.356	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-135669-3**

**Date Collected: 03/22/17 13:00**

**Matrix: Water**

**Date Received: 03/24/17 08:28**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00155	U	0.0488	0.0488	1.00	0.104	pCi/L	03/29/17 08:28	04/20/17 05:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					03/29/17 08:28	04/20/17 05:46	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0725	U	0.208	0.208	1.00	0.360	pCi/L	03/29/17 08:50	04/13/17 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					03/29/17 08:50	04/13/17 15:01	1
Y Carrier	87.1		40 - 110					03/29/17 08:50	04/13/17 15:01	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	0.0709	U	0.213	0.214	5.00	0.360	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**  
**Date Collected: 03/22/17 14:30**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-4**  
**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	0.0404	U	0.0688	0.0689	1.00	0.120	pCi/L	03/29/17 08:28	04/20/17 05:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/29/17 08:28	04/20/17 05:46	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.122	U	0.233	0.233	1.00	0.428	pCi/L	03/29/17 08:50	04/13/17 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/29/17 08:50	04/13/17 15:01	1
Y Carrier	87.1		40 - 110					03/29/17 08:50	04/13/17 15:01	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	-0.0817	U	0.243	0.243	5.00	0.428	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-7**  
**Date Collected: 03/22/17 14:45**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-5**  
**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	0.127		0.0770	0.0779	1.00	0.0960	pCi/L	03/29/17 08:28	04/20/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/29/17 08:28	04/20/17 05:47	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.111	U	0.191	0.192	1.00	0.364	pCi/L	03/29/17 08:50	04/13/17 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/29/17 08:50	04/13/17 15:01	1
Y Carrier	85.6		40 - 110					03/29/17 08:50	04/13/17 15:01	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	0.0161	U	0.206	0.207	5.00	0.364	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**  
**Date Collected: 03/22/17 13:45**  
**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-6**  
**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	-0.0232	U	0.0466	0.0467	1.00	0.112	pCi/L	03/29/17 08:28	04/20/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/29/17 08:28	04/20/17 05:47	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.187	U	0.209	0.210	1.00	0.343	pCi/L	03/29/17 08:50	04/13/17 15:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/29/17 08:50	04/13/17 15:01	1
Y Carrier	87.1		40 - 110					03/29/17 08:50	04/13/17 15:01	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	0.164	U	0.214	0.215	5.00	0.343	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Date Collected: 03/22/17 00:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-7**

**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	0.0740	U	0.0629	0.0633	1.00	0.0911	pCi/L	03/29/17 08:28	04/20/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/29/17 08:28	04/20/17 05:47	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0961	U	0.197	0.197	1.00	0.364	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	88.6		40 - 110					03/29/17 08:50	04/13/17 15:02	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	-0.0221	U	0.207	0.207	5.00	0.364	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-33**  
**Date Collected: 03/23/17 09:20**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-8**  
**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	0.299		0.110	0.113	1.00	0.113	pCi/L	03/29/17 08:28	04/20/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/29/17 08:28	04/20/17 05:47	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.204	U	0.207	0.208	1.00	0.336	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	83.4		40 - 110					03/29/17 08:50	04/13/17 15:02	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	0.504		0.234	0.237	5.00	0.336	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-135669-9**

**Date Collected: 03/23/17 09:55**

**Matrix: Water**

**Date Received: 03/25/17 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	0.0920	U	0.0843	0.0847	1.00	0.129	pCi/L	03/29/17 08:28	04/20/17 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					03/29/17 08:28	04/20/17 05:47	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.313	U	0.267	0.268	1.00	0.426	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	81.9		40 - 110					03/29/17 08:50	04/13/17 15:02	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	0.405	U	0.280	0.281	5.00	0.426	pCi/L		04/25/17 13:10	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-135669-10**

Date Collected: 03/23/17 11:00

Matrix: Water

Date Received: 03/25/17 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	0.354		0.117	0.121	1.00	0.110	pCi/L	03/29/17 08:28	04/20/17 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					03/29/17 08:28	04/20/17 05:48	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.325	U	0.229	0.231	1.00	0.358	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	86.0		40 - 110					03/29/17 08:50	04/13/17 15:02	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	0.679		0.257	0.261	5.00	0.358	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 03/23/17 11:40**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-12**

**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	0.0521	U	0.0649	0.0651	1.00	0.107	pCi/L	03/29/17 08:28	04/20/17 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					03/29/17 08:28	04/20/17 05:48	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0902	U	0.201	0.201	1.00	0.345	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	88.6		40 - 110					03/29/17 08:50	04/13/17 15:02	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	0.142	U	0.211	0.211	5.00	0.345	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 03/23/17 13:40**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-13**  
**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	0.133		0.0814	0.0823	1.00	0.105	pCi/L	03/29/17 08:28	04/20/17 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/29/17 08:28	04/20/17 05:48	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.219	U	0.206	0.207	1.00	0.332	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	85.2		40 - 110					03/29/17 08:50	04/13/17 15:02	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.353		0.221	0.223	5.00	0.332	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-135669-14**

**Date Collected: 03/23/17 13:50**

**Matrix: Water**

**Date Received: 03/25/17 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	1.41		0.221	0.254	1.00	0.104	pCi/L	03/29/17 08:28	04/20/17 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/29/17 08:28	04/20/17 05:48	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.62		0.429	0.543	1.00	0.350	pCi/L	03/29/17 08:50	04/13/17 15:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/29/17 08:50	04/13/17 15:02	1
Y Carrier	86.4		40 - 110					03/29/17 08:50	04/13/17 15:02	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	5.03		0.483	0.600	5.00	0.350	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-135669-15**

Date Collected: 03/23/17 15:35

Matrix: Water

Date Received: 03/25/17 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	0.245		0.104	0.106	1.00	0.122	pCi/L	03/29/17 08:28	04/20/17 05:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					03/29/17 08:28	04/20/17 05:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413		0.204	0.207	1.00	0.295	pCi/L	03/29/17 08:50	04/13/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					03/29/17 08:50	04/13/17 14:51	1
Y Carrier	89.3		40 - 110					03/29/17 08:50	04/13/17 14:51	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.657		0.228	0.233	5.00	0.295	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**  
**Date Collected: 03/23/17 15:45**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-16**  
**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	0.0860	U	0.0735	0.0740	1.00	0.111	pCi/L	03/29/17 08:28	04/20/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/29/17 08:28	04/20/17 05:50	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.120	U	0.193	0.194	1.00	0.364	pCi/L	03/29/17 08:50	04/13/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/29/17 08:50	04/13/17 14:51	1
Y Carrier	86.4		40 - 110					03/29/17 08:50	04/13/17 14:51	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	-0.0335	U	0.207	0.207	5.00	0.364	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Date Collected: 03/23/17 15:55**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-17**

**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	0.0329	U	0.0665	0.0665	1.00	0.118	pCi/L	03/29/17 08:28	04/20/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/29/17 08:28	04/20/17 05:50	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0652	U	0.192	0.192	1.00	0.333	pCi/L	03/29/17 08:50	04/13/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/29/17 08:50	04/13/17 14:51	1
Y Carrier	84.9		40 - 110					03/29/17 08:50	04/13/17 14:51	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	0.0981	U	0.203	0.203	5.00	0.333	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 03/23/17 11:50**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-18**  
**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	-0.0115	U	0.0460	0.0460	1.00	0.107	pCi/L	03/31/17 09:24	04/24/17 11:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					03/31/17 09:24	04/24/17 11:51	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.247	0.247	1.00	0.421	pCi/L	03/31/17 10:10	04/17/17 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					03/31/17 10:10	04/17/17 11:01	1
Y Carrier	83.0		40 - 110					03/31/17 10:10	04/17/17 11:01	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	0.106	U	0.251	0.251	5.00	0.421	pCi/L		04/25/17 13:10	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-135669-19**

**Date Collected: 03/23/17 14:50**

**Matrix: Water**

**Date Received: 03/25/17 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	0.0182	U	0.0643	0.0643	1.00	0.123	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					03/31/17 09:24	04/24/17 11:52	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.138	U	0.203	0.204	1.00	0.342	pCi/L	03/31/17 10:10	04/17/17 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					03/31/17 10:10	04/17/17 11:01	1
Y Carrier	86.7		40 - 110					03/31/17 10:10	04/17/17 11:01	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	0.156	U	0.213	0.214	5.00	0.342	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 03/23/17 00:00**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-20**

**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	0.0989	U	0.0888	0.0892	1.00	0.135	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					03/31/17 09:24	04/24/17 11:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.247	0.249	1.00	0.381	pCi/L	03/31/17 10:10	04/17/17 11:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					03/31/17 10:10	04/17/17 11:02	1
Y Carrier	86.7		40 - 110					03/31/17 10:10	04/17/17 11:02	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.478</b>		0.262	0.265	5.00	0.381	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Date Collected: 03/24/17 09:00**

**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-21**

**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	0.740		0.174	0.186	1.00	0.119	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					03/31/17 09:24	04/24/17 11:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.56		0.438	0.547	1.00	0.362	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	85.2		40 - 110					03/31/17 10:10	04/17/17 11:03	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	4.30		0.471	0.577	5.00	0.362	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-135669-22**

**Date Collected: 03/24/17 09:30**

**Matrix: Water**

**Date Received: 03/25/17 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	0.131		0.0834	0.0843	1.00	0.108	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					03/31/17 09:24	04/24/17 11:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.289	U	0.242	0.244	1.00	0.386	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	81.1		40 - 110					03/31/17 10:10	04/17/17 11:03	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	0.420		0.256	0.258	5.00	0.386	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-135669-23**

Date Collected: 03/24/17 10:00

Matrix: Water

Date Received: 03/25/17 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	0.359		0.121	0.125	1.00	0.107	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					03/31/17 09:24	04/24/17 11:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.218	U	0.251	0.252	1.00	0.414	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	80.0		40 - 110					03/31/17 10:10	04/17/17 11:03	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	0.578		0.279	0.282	5.00	0.414	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**  
**Date Collected: 03/24/17 10:22**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-24**  
**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	-0.000861	U	0.0542	0.0542	1.00	0.115	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					03/31/17 09:24	04/24/17 11:52	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0620	U	0.267	0.267	1.00	0.479	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	84.1		40 - 110					03/31/17 10:10	04/17/17 11:03	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	-0.0628	U	0.272	0.272	5.00	0.479	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**  
**Date Collected: 03/24/17 10:30**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-25**  
**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	0.106	U	0.0825	0.0830	1.00	0.119	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					03/31/17 09:24	04/24/17 11:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.242	0.242	1.00	0.412	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	84.5		40 - 110					03/31/17 10:10	04/17/17 11:03	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	0.223	U	0.255	0.256	5.00	0.412	pCi/L		04/25/17 13:10	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-135669-26**

**Date Collected: 03/24/17 12:05**

**Matrix: Water**

**Date Received: 03/25/17 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	0.0794	U	0.0697	0.0701	1.00	0.102	pCi/L	03/31/17 09:24	04/24/17 11:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					03/31/17 09:24	04/24/17 11:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.170	U	0.225	0.225	1.00	0.374	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	86.7		40 - 110					03/31/17 10:10	04/17/17 11:03	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	0.250	U	0.235	0.236	5.00	0.374	pCi/L		04/25/17 13:10	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 03/24/17 10:00**  
**Date Received: 03/25/17 08:49**

**Lab Sample ID: 400-135669-27**  
**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	-0.00167	U	0.0431	0.0431	1.00	0.0970	pCi/L	03/31/17 09:24	04/24/17 11:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					03/31/17 09:24	04/24/17 11:53	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.276	U	0.234	0.235	1.00	0.374	pCi/L	03/31/17 10:10	04/17/17 11:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					03/31/17 10:10	04/17/17 11:03	1
Y Carrier	87.5		40 - 110					03/31/17 10:10	04/17/17 11:03	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	0.274	U	0.238	0.239	5.00	0.374	pCi/L		04/25/17 13:10	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 03/22/17 11:20**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-6**

**Date Collected: 03/22/17 13:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-34**

**Date Collected: 03/22/17 13:00**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:46	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-35**

**Date Collected: 03/22/17 14:30**

**Date Received: 03/24/17 08:28**

**Lab Sample ID: 400-135669-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:46	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-135669-5**

**Date Collected: 03/22/17 14:45**

**Matrix: Water**

**Date Received: 03/24/17 08:28**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: FERB-2**

**Lab Sample ID: 400-135669-6**

**Date Collected: 03/22/17 13:45**

**Matrix: Water**

**Date Received: 03/24/17 08:28**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-135669-7**

**Date Collected: 03/22/17 00:00**

**Matrix: Water**

**Date Received: 03/24/17 08:28**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-135669-8**

**Date Collected: 03/23/17 09:20**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-135669-9**

**Date Collected: 03/23/17 09:55**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-135669-10**

**Date Collected: 03/23/17 11:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-135669-12**

**Date Collected: 03/23/17 11:40**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-135669-13**

**Date Collected: 03/23/17 13:40**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-135669-14**

**Date Collected: 03/23/17 13:50**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304376	04/20/17 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303376	04/13/17 15:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-135669-15**

**Date Collected: 03/23/17 15:35**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304379	04/20/17 05:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303351	04/13/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-135669-16**

**Date Collected: 03/23/17 15:45**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304379	04/20/17 05:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303351	04/13/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-135669-17**

**Date Collected: 03/23/17 15:55**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300480	03/29/17 08:28	LDE	TAL SL
Total/NA	Analysis	9315		1	304379	04/20/17 05:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300495	03/29/17 08:50	LDE	TAL SL
Total/NA	Analysis	9320		1	303351	04/13/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Client Sample ID: FB-2

**Lab Sample ID: 400-135669-18**

Date Collected: 03/23/17 11:50

Matrix: Water

Date Received: 03/25/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

## Client Sample ID: FERB-3

**Lab Sample ID: 400-135669-19**

Date Collected: 03/23/17 14:50

Matrix: Water

Date Received: 03/25/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

## Client Sample ID: DUP-3

**Lab Sample ID: 400-135669-20**

Date Collected: 03/23/17 00:00

Matrix: Water

Date Received: 03/25/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

## Client Sample ID: GWC-10

**Lab Sample ID: 400-135669-21**

Date Collected: 03/24/17 09:00

Matrix: Water

Date Received: 03/25/17 08:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-135669-22**

**Date Collected: 03/24/17 09:30**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-135669-23**

**Date Collected: 03/24/17 10:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-135669-24**

**Date Collected: 03/24/17 10:22**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-135669-25**

**Date Collected: 03/24/17 10:30**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

TestAmerica Pensacola



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-135669-26**

**Date Collected: 03/24/17 12:05**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	RTM	TAL SL

**Client Sample ID: FB-3**

**Lab Sample ID: 400-135669-27**

**Date Collected: 03/24/17 10:00**

**Matrix: Water**

**Date Received: 03/25/17 08:49**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			300937	03/31/17 09:24	LDE	TAL SL
Total/NA	Analysis	9315		1	305123	04/24/17 11:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			300940	03/31/17 10:10	LDE	TAL SL
Total/NA	Analysis	9320		1	303661	04/17/17 11:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	305398	04/25/17 13:10	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 Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 300480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total/NA	Water	PrecSep-21	
400-135669-2	GWC-6	Total/NA	Water	PrecSep-21	
400-135669-3	GWC-34	Total/NA	Water	PrecSep-21	
400-135669-4	GWC-35	Total/NA	Water	PrecSep-21	
400-135669-5	GWC-7	Total/NA	Water	PrecSep-21	
400-135669-6	FERB-2	Total/NA	Water	PrecSep-21	
400-135669-7	DUP-2	Total/NA	Water	PrecSep-21	
400-135669-8	GWC-33	Total/NA	Water	PrecSep-21	
400-135669-9	GWC-25	Total/NA	Water	PrecSep-21	
400-135669-10	GWC-11	Total/NA	Water	PrecSep-21	
400-135669-12	GWC-8	Total/NA	Water	PrecSep-21	
400-135669-13	GWC-9	Total/NA	Water	PrecSep-21	
400-135669-14	GWC-12	Total/NA	Water	PrecSep-21	
400-135669-15	GWC-14	Total/NA	Water	PrecSep-21	
400-135669-16	GWC-15	Total/NA	Water	PrecSep-21	
400-135669-17	GWC-13	Total/NA	Water	PrecSep-21	
MB 160-300480/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-300480/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-135669-4 DU	GWC-35	Total/NA	Water	PrecSep-21	
400-135669-15 DU	GWC-14	Total/NA	Water	PrecSep-21	

### Prep Batch: 300495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-1	GWC-5	Total/NA	Water	PrecSep_0	
400-135669-2	GWC-6	Total/NA	Water	PrecSep_0	
400-135669-3	GWC-34	Total/NA	Water	PrecSep_0	
400-135669-4	GWC-35	Total/NA	Water	PrecSep_0	
400-135669-5	GWC-7	Total/NA	Water	PrecSep_0	
400-135669-6	FERB-2	Total/NA	Water	PrecSep_0	
400-135669-7	DUP-2	Total/NA	Water	PrecSep_0	
400-135669-8	GWC-33	Total/NA	Water	PrecSep_0	
400-135669-9	GWC-25	Total/NA	Water	PrecSep_0	
400-135669-10	GWC-11	Total/NA	Water	PrecSep_0	
400-135669-12	GWC-8	Total/NA	Water	PrecSep_0	
400-135669-13	GWC-9	Total/NA	Water	PrecSep_0	
400-135669-14	GWC-12	Total/NA	Water	PrecSep_0	
400-135669-15	GWC-14	Total/NA	Water	PrecSep_0	
400-135669-16	GWC-15	Total/NA	Water	PrecSep_0	
400-135669-17	GWC-13	Total/NA	Water	PrecSep_0	
MB 160-300495/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-300495/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-135669-4 DU	GWC-35	Total/NA	Water	PrecSep_0	
400-135669-15 DU	GWC-14	Total/NA	Water	PrecSep_0	

### Prep Batch: 300937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-18	FB-2	Total/NA	Water	PrecSep-21	
400-135669-19	FERB-3	Total/NA	Water	PrecSep-21	
400-135669-20	DUP-3	Total/NA	Water	PrecSep-21	
400-135669-21	GWC-10	Total/NA	Water	PrecSep-21	
400-135669-22	GWC-16	Total/NA	Water	PrecSep-21	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Rad (Continued)

### Prep Batch: 300937 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-23	GWC-32	Total/NA	Water	PrecSep-21	
400-135669-24	GWC-17	Total/NA	Water	PrecSep-21	
400-135669-25	GWC-18	Total/NA	Water	PrecSep-21	
400-135669-26	GWC-19	Total/NA	Water	PrecSep-21	
400-135669-27	FB-3	Total/NA	Water	PrecSep-21	
MB 160-300937/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-300937/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-77315-A-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
240-77315-B-1-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	

### Prep Batch: 300940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-18	FB-2	Total/NA	Water	PrecSep_0	
400-135669-19	FERB-3	Total/NA	Water	PrecSep_0	
400-135669-20	DUP-3	Total/NA	Water	PrecSep_0	
400-135669-21	GWC-10	Total/NA	Water	PrecSep_0	
400-135669-22	GWC-16	Total/NA	Water	PrecSep_0	
400-135669-23	GWC-32	Total/NA	Water	PrecSep_0	
400-135669-24	GWC-17	Total/NA	Water	PrecSep_0	
400-135669-25	GWC-18	Total/NA	Water	PrecSep_0	
400-135669-26	GWC-19	Total/NA	Water	PrecSep_0	
400-135669-27	FB-3	Total/NA	Water	PrecSep_0	
MB 160-300940/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-300940/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-77315-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
240-77315-B-1-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-300480/1-A**  
**Matrix: Water**  
**Analysis Batch: 304376**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300480**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.004627	U	0.0513	0.0513	1.00	0.110	pCi/L	03/29/17 08:28	04/20/17 05:44	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	94.7		40 - 110		03/29/17 08:28	04/20/17 05:44	1			

**Lab Sample ID: LCS 160-300480/2-A**  
**Matrix: Water**  
**Analysis Batch: 304376**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 300480**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	11.08		1.16	1.00	0.122	pCi/L	97	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	97.3		40 - 110		03/29/17 08:28	04/20/17 05:44	1		

**Lab Sample ID: 400-135669-4 DU**  
**Matrix: Water**  
**Analysis Batch: 304376**

**Client Sample ID: GWC-35**  
**Prep Type: Total/NA**  
**Prep Batch: 300480**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0404	U	-0.01872	U	0.0451	1.00	0.106	pCi/L	0.52	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	102		40 - 110		03/29/17 08:28	04/20/17 05:44	1			

**Lab Sample ID: 400-135669-15 DU**  
**Matrix: Water**  
**Analysis Batch: 304379**

**Client Sample ID: GWC-14**  
**Prep Type: Total/NA**  
**Prep Batch: 300480**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.245		0.3048		0.111	1.00	0.106	pCi/L	0.28	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.6		40 - 110		03/29/17 08:28	04/20/17 05:44	1			

**Lab Sample ID: MB 160-300937/1-A**  
**Matrix: Water**  
**Analysis Batch: 305123**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300937**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01074	U	0.0462	0.0462	1.00	0.107	pCi/L	03/31/17 09:24	04/24/17 11:51	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: MB 160-300937/1-A**  
**Matrix: Water**  
**Analysis Batch: 305123**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300937**

Carrier	MB %Yield	MB Qualifier	Limits
Ba Carrier	94.7		40 - 110

Prepared	Analyzed	Dil Fac
03/31/17 09:24	04/24/17 11:51	1

**Lab Sample ID: LCS 160-300937/2-A**  
**Matrix: Water**  
**Analysis Batch: 305123**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 300937**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	10.57		1.13	1.00	0.123	pCi/L	93	68 - 137

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.4		40 - 110

**Lab Sample ID: 240-77315-A-1-A MSD**  
**Matrix: Water**  
**Analysis Batch: 305123**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 300937**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.0880	U	11.4	10.43		1.11	1.00	0.119	pCi/L	91	75 - 138	0.1	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	93.5		40 - 110

**Lab Sample ID: 240-77315-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 305123**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 300937**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.0880	U	11.4	10.22		1.09	1.00	0.133	pCi/L	89	75 - 138

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	92.6		40 - 110

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-300495/1-A**  
**Matrix: Water**  
**Analysis Batch: 303376**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300495**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08112	U	0.209	0.209	1.00	0.361	pCi/L	03/29/17 08:50	04/13/17 15:00	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: MB 160-300495/1-A**  
**Matrix: Water**  
**Analysis Batch: 303376**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300495**

Carrier	MB %Yield	MB Qualifier	Limits
Ba Carrier	94.7		40 - 110
Y Carrier	84.1		40 - 110

Prepared	Analyzed	Dil Fac
03/29/17 08:50	04/13/17 15:00	1
03/29/17 08:50	04/13/17 15:00	1

**Lab Sample ID: LCS 160-300495/2-A**  
**Matrix: Water**  
**Analysis Batch: 303376**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 300495**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.6	14.15		1.52	1.00	0.356	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.3		40 - 110
Y Carrier	85.2		40 - 110

**Lab Sample ID: 400-135669-4 DU**  
**Matrix: Water**  
**Analysis Batch: 303376**

**Client Sample ID: GWC-35**  
**Prep Type: Total/NA**  
**Prep Batch: 300495**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.122	U	-0.00926	U	0.200	1.00	0.358	pCi/L	0.26	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	86.4		40 - 110

**Lab Sample ID: 400-135669-15 DU**  
**Matrix: Water**  
**Analysis Batch: 303351**

**Client Sample ID: GWC-14**  
**Prep Type: Total/NA**  
**Prep Batch: 300495**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.413		0.4835		0.206	1.00	0.273	pCi/L	0.17	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.6		40 - 110
Y Carrier	89.3		40 - 110

**Lab Sample ID: MB 160-300940/1-A**  
**Matrix: Water**  
**Analysis Batch: 303661**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300940**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.02104	U	0.207	0.207	1.00	0.375	pCi/L	03/31/17 10:10	04/17/17 11:01	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: MB 160-300940/1-A**  
**Matrix: Water**  
**Analysis Batch: 303661**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 300940**

	<i>MB</i>	<i>MB</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	94.7		40 - 110
Y Carrier	81.1		40 - 110

<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
03/31/17 10:10	04/17/17 11:01	1
03/31/17 10:10	04/17/17 11:01	1

**Lab Sample ID: LCS 160-300940/2-A**  
**Matrix: Water**  
**Analysis Batch: 303661**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 300940**

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qual</i>	<i>Total Uncert. (2σ+/-)</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
Radium-228	13.6	17.72		1.88	1.00	0.409	pCi/L	131	56 - 140

	<i>LCS</i>	<i>LCS</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	89.4		40 - 110
Y Carrier	80.7		40 - 110

**Lab Sample ID: 240-77315-A-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 303661**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 300940**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qual</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qual</i>	<i>Total Uncert. (2σ+/-)</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RER</i>	<i>RER Limit</i>
Radium-228	0.0540	U	13.6	16.31		1.71	1.00	0.350	pCi/L	120	45 - 150	0.02	1

	<i>MSD</i>	<i>MSD</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	93.5		40 - 110
Y Carrier	88.2		40 - 110

**Lab Sample ID: 240-77315-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 303661**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 300940**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qual</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qual</i>	<i>Total Uncert. (2σ+/-)</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
Radium-228	0.0540	U	13.6	16.37		1.73	1.00	0.359	pCi/L	120	45 - 150

	<i>MS</i>	<i>MS</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
Ba Carrier	92.6		40 - 110
Y Carrier	85.2		40 - 110

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
 SDG: Gypsum Landfill

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-135669-4 DU**  
**Matrix: Water**  
**Analysis Batch: 305398**

**Client Sample ID: GWC-35**  
**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	-0.0817	U	-0.02798	U	0.205	5.00	0.358	pCi/L	0.12	

**Lab Sample ID: 400-135669-15 DU**  
**Matrix: Water**  
**Analysis Batch: 305398**

**Client Sample ID: GWC-14**  
**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	0.657		0.7883		0.234	5.00	0.273	pCi/L	0.28	





**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**

Sampler: J. McCrossen, J.M.C. Hurdle Chm, Thomas MT  
 Lab P.M.: Whitmore, Cheyenne R  
 Client Contact: Joju Abraham  
 E-Mail: cheyenne.whitmore@testamericainc.com  
 Company: Southern Company

Carrier Tracking No(s):

COC No:

Page:

Job #:

Analysis Requested

400-135669 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)

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Project #:

SSOW#:

Address:

City:

State, Zip:

Phone:

E-mail:

Project Name:

Site:

2411 Ralph McGill Blvd SE B10185

Atlanta

GA, 30308

404-506-7239

JAbraham@southernco.com

Plant Wansley - Gypsum Landfill

CCR

**Sample Identification**

Sample ID	Sample Date	Sample Time (G=Grab)	Sample Type (C=Comp, G=Grab)	Matrix (Water, Soil, Sludge, Other)	Analysis Requested	Special Instructions/Note
GWC-5	3/22/17	1120	G	W	TD-SM-2540C; CP-SO4-EPA-300	
GWC-6	3/22/17	1300	G	W	Metals - (Part 267 Appendix III & IV) EPA 6020 & EPA 7470	
GWC-34	3/22/17	1300	G	W	Radium 226 & 228 - SW-846 9315 & 9320	
GWC-35	3/22/17	1430	G	W		Extra radium bottle collected for lab QA/QC
GWC-7	3/22/17	1445	G	W		
FERB-2	3/22/17	1345	G	W		
DUP-2	3/22/17	--	G	W		

**Possible Hazard Identification**

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:**

Relinquished by: [Signature]  
 Date: 3/23/17 1310  
 Company: ERM  
 Relinquished by: [Signature]  
 Date: 3/22/17 1630  
 Company: [Signature]  
 Relinquished by: [Signature]  
 Date: [Signature]  
 Company: [Signature]

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Special Instructions/QC Requirements:**

Method of Shipment: \_\_\_\_\_  
 Received by: [Signature] Date: 3/23/17 1310 Company: ERM  
 Received by: [Signature] Date: 3/24/17 0818 Company: [Signature]  
 Received by: [Signature] Date: [Signature] Company: [Signature]

Custody Seal No. \_\_\_\_\_  
 Δ Yes - Δ No

Colder Temperature(s) °C and Other Remarks: 47°C, 2.9°C, 3.2°C



# Chain of Custody Record

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 Client Contact: Jojo 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Lab PWT: Whitmire, Cheyenne R  
 E-Mail: cfreyenne.whitmire@testamericainc.com  
 Carrier Tracking No(s):

COC No:  
 Page:  
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Performance (SP Res or NO)	Analysis Requested			Special Instructions/Note:
							Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	
GWC-33	3/23/17	0920	G	W	X		X	X	3	
GWC-25	3/23/17	0955	G	W	X		X	X	3	
GWC-11	3/23/17	1100	G	W	X		X	X	3	
GWC-31	3/23/17	1100	G	W	X		X	X	3	insufficient volume for TDS and Radium samples
GWC-8	3/23/17	1140	G	W	X		X	X	3	
GWC-9	3/23/17	1340	G	W	X		X	X	3	
GWC-12	3/23/17	1350	G	W	X		X	X	3	
GWC-14	3/23/17	1535	G	W	X		X	X	3	
GWC-15	3/23/17	1545	G	W	X		X	X	3	Extra radium sample collected for lab QA/QC
GWC-13	3/23/17	1555	G	W	X		X	X	3	
FB-2	3/23/17	1150	G	W	X		X	X	3	
FERB-3	3/23/17	1450	G	W	X		X	X	3	
DUP-3	3/23/17	-	G	W	X		X	X	3	

**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: 3/24/17 1503 Company: ERM  
 Relinquished by: JKE Date/Time: 3/24/17 0849 Company: JKA-12  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_

**Chain of Custody Record**

**681-Atlanta**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

<b>Client Information</b> Southern Company 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 Phone: 404-506-7239 Email: JAbraham@southernco.com Project Name: Plant Wansley - Gypsum Landfill Site: CCR		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Job #:	
Sampler: T. Payne (P, C, Hurdle of, M, Thomas kr) Phone:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW #:		Special Instructions/Note: Total Number of Containers:	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/oil, ET=Tissue, A=Air) Preservation Code		Analysis Requested Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 TDS - SM 2540C, Cl, F, SO4 - EPA 300 Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant 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:		Method of Shipment:	
Relinquished by: [Signature] Date/Time: 3/24/17 1503 Company: ERM		Received by: [Signature] Date/Time: 3/24/17 1503 Company: ERM	
Relinquished by: [Signature] Date/Time: 3/24/17 1740 Company: ERM		Received by: [Signature] Date/Time: 3/25/17 0849 Company: ERM	
Relinquished by: [Signature] Date/Time: 3/24/17 1740 Company: ERM		Received by: [Signature] Date/Time: 3/25/17 0849 Company: ERM	
Custody Seals Intact: [Signature] Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135669-2  
SDG Number: Gypsum Landfill

**Login Number: 135669**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	4.7°C, 2.4°C, 3.2°C IR-7, 3.6°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 Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## 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

## 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	03-31-17 *
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 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-2  
SDG: Gypsum Landfill

## 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	02-28-18
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 *

\* 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: 400-135669-3

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/17/2017 3:38:33 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

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**Job ID: 400-135669-3**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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**Job Narrative**  
**400-135669-3**

## Metals

Method(s) 6020: The native sample and post digestion spike (PDS) associated with preparation batch 348297 and analytical batch 348836 were performed at the same dilution. Due to the additional level of analyte present in the post digestion spike, the concentration Molybdenum in the PDS was above the instrument calibration range. The data has been reported and qualified.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-20

## Lab Sample ID: 400-135669-28

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	0.75	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	7.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0033	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-23

## Lab Sample ID: 400-135669-29

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
Barium	0.0041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-135669-30

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
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0027		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	98		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-21

## Lab Sample ID: 400-135669-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00047	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-24

## Lab Sample ID: 400-135669-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00059	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 Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24 (Continued)**

**Lab Sample ID: 400-135669-32**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA

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This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135669-28	GWC-20	Water	03/28/17 11:00	03/31/17 08:50
400-135669-29	GWC-23	Water	03/28/17 11:20	03/31/17 08:50
400-135669-30	GWC-22	Water	03/28/17 11:55	03/31/17 08:50
400-135669-31	GWC-21	Water	03/28/17 12:25	03/31/17 08:50
400-135669-32	GWC-24	Water	03/29/17 09:50	03/31/17 08:50

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**  
**Date Collected: 03/28/17 11:00**  
**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-28**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			04/02/17 11:34	1
Fluoride	<0.082		0.20	0.082	mg/L			04/02/17 11:34	1
<b>Sulfate</b>	<b>0.75</b>	<b>J</b>	1.0	0.70	mg/L			04/02/17 11:34	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		04/04/17 09:01	04/06/17 13:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:48	5
<b>Barium</b>	<b>0.031</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:48	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:48	5
<b>Calcium</b>	<b>7.9</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:48	5
<b>Lithium</b>	<b>0.0033</b>	<b>J</b>	0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:48	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		04/03/17 12:22	04/07/17 13:43	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>82</b>		5.0	3.4	mg/L			04/02/17 12:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 03/28/17 11:20**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-29**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			04/02/17 12:42	1
Fluoride	<0.082		0.20	0.082	mg/L			04/02/17 12:42	1
Sulfate	<0.70		1.0	0.70	mg/L			04/02/17 12:42	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		04/04/17 09:01	04/06/17 13:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:52	5
<b>Barium</b>	<b>0.0041</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:52	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:52	5
<b>Calcium</b>	<b>3.1</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:52	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		04/03/17 12:22	04/07/17 13:44	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>38</b>		5.0	3.4	mg/L			04/02/17 12:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**  
**Date Collected: 03/28/17 11:55**  
**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-30**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			04/02/17 13:05	1
Fluoride	<0.082		0.20	0.082	mg/L			04/02/17 13:05	1
Sulfate	<0.70		1.0	0.70	mg/L			04/02/17 13:05	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		04/04/17 09:01	04/06/17 13:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 13:57	5
<b>Barium</b>	<b>0.024</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 13:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:57	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 13:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 13:57	5
<b>Calcium</b>	<b>9.8</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 13:57	5
<b>Chromium</b>	<b>0.0027</b>		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 13:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 13:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 13:57	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 13:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 13:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 13:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 13:57	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		04/03/17 12:22	04/07/17 13:45	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>98</b>		5.0	3.4	mg/L			04/02/17 12:58	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**  
**Date Collected: 03/28/17 12:25**  
**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-31**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.4</b>		1.0	0.89	mg/L			04/02/17 13:28	1
Fluoride	<0.082		0.20	0.082	mg/L			04/02/17 13:28	1
Sulfate	<0.70		1.0	0.70	mg/L			04/02/17 13:28	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		04/04/17 09:01	04/06/17 14:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 14:01	5
<b>Barium</b>	<b>0.021</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 14:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:01	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 14:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:01	5
<b>Calcium</b>	<b>3.2</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 14:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 14:01	5
<b>Cobalt</b>	<b>0.00047</b>	<b>J</b>	0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 14:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 14:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 14:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 14:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 14:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 14:01	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		04/03/17 12:22	04/07/17 13:55	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>48</b>		5.0	3.4	mg/L			04/02/17 12:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-135669-32**

**Date Collected: 03/29/17 09:50**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.2</b>		1.0	0.89	mg/L			04/02/17 13:51	1
Fluoride	<0.082		0.20	0.082	mg/L			04/02/17 13:51	1
Sulfate	<0.70		1.0	0.70	mg/L			04/02/17 13:51	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		04/04/17 09:01	04/06/17 14:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 14:06	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 14:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:06	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 14:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:06	5
<b>Calcium</b>	<b>1.3</b>		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 14:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 14:06	5
<b>Cobalt</b>	<b>0.00059 J</b>		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 14:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 14:06	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 14:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 14:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 14:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 14:06	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/17 12:22	04/07/17 13:56	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>28</b>		5.0	3.4	mg/L			04/02/17 12:58	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 03/28/17 11:00**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-28**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	348098	04/02/17 11:34	KH1	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:48	DRE	TAL PEN
Total/NA	Prep	7470A			348216	04/03/17 12:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348912	04/07/17 13:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	348117	04/02/17 12:58	RRC	TAL PEN

**Client Sample ID: GWC-23**

**Date Collected: 03/28/17 11:20**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-29**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	348098	04/02/17 12:42	KH1	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:52	DRE	TAL PEN
Total/NA	Prep	7470A			348216	04/03/17 12:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348912	04/07/17 13:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	348117	04/02/17 12:58	RRC	TAL PEN

**Client Sample ID: GWC-22**

**Date Collected: 03/28/17 11:55**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-30**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	348098	04/02/17 13:05	KH1	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 13:57	DRE	TAL PEN
Total/NA	Prep	7470A			348216	04/03/17 12:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348912	04/07/17 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	348117	04/02/17 12:58	RRC	TAL PEN

**Client Sample ID: GWC-21**

**Date Collected: 03/28/17 12:25**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-31**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	348098	04/02/17 13:28	KH1	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 14:01	DRE	TAL PEN
Total/NA	Prep	7470A			348216	04/03/17 12:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348912	04/07/17 13:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	348117	04/02/17 12:58	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-135669-32**

**Date Collected: 03/29/17 09:50**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	348098	04/02/17 13:51	KH1	TAL PEN
Total Recoverable	Prep	3005A			348297	04/04/17 09:01	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	348836	04/06/17 14:06	DRE	TAL PEN
Total/NA	Prep	7470A			348216	04/03/17 12:22	JAP	TAL PEN
Total/NA	Analysis	7470A		1	348912	04/07/17 13:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	348117	04/02/17 12:58	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 Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 348098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total/NA	Water	300.0	
400-135669-29	GWC-23	Total/NA	Water	300.0	
400-135669-30	GWC-22	Total/NA	Water	300.0	
400-135669-31	GWC-21	Total/NA	Water	300.0	
400-135669-32	GWC-24	Total/NA	Water	300.0	
MB 400-348098/4	Method Blank	Total/NA	Water	300.0	
LCS 400-348098/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-348098/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-135669-28 MS	GWC-20	Total/NA	Water	300.0	
400-135669-28 MSD	GWC-20	Total/NA	Water	300.0	

## Metals

### Prep Batch: 348216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total/NA	Water	7470A	
400-135669-29	GWC-23	Total/NA	Water	7470A	
400-135669-30	GWC-22	Total/NA	Water	7470A	
400-135669-31	GWC-21	Total/NA	Water	7470A	
400-135669-32	GWC-24	Total/NA	Water	7470A	
MB 400-348216/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-348216/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135908-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-135908-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 348297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total Recoverable	Water	3005A	
400-135669-29	GWC-23	Total Recoverable	Water	3005A	
400-135669-30	GWC-22	Total Recoverable	Water	3005A	
400-135669-31	GWC-21	Total Recoverable	Water	3005A	
400-135669-32	GWC-24	Total Recoverable	Water	3005A	
MB 400-348297/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-348297/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135669-C-17-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-135669-C-17-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 348836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total Recoverable	Water	6020	348297
400-135669-29	GWC-23	Total Recoverable	Water	6020	348297
400-135669-30	GWC-22	Total Recoverable	Water	6020	348297
400-135669-31	GWC-21	Total Recoverable	Water	6020	348297
400-135669-32	GWC-24	Total Recoverable	Water	6020	348297
MB 400-348297/1-A ^5	Method Blank	Total Recoverable	Water	6020	348297
LCS 400-348297/2-A	Lab Control Sample	Total Recoverable	Water	6020	348297
400-135669-C-17-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	348297
400-135669-C-17-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	348297

# QC Association Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 348912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total/NA	Water	7470A	348216
400-135669-29	GWC-23	Total/NA	Water	7470A	348216
400-135669-30	GWC-22	Total/NA	Water	7470A	348216
400-135669-31	GWC-21	Total/NA	Water	7470A	348216
400-135669-32	GWC-24	Total/NA	Water	7470A	348216
MB 400-348216/14-A	Method Blank	Total/NA	Water	7470A	348216
LCS 400-348216/15-A	Lab Control Sample	Total/NA	Water	7470A	348216
400-135908-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	348216
400-135908-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	348216

## General Chemistry

### Analysis Batch: 348117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total/NA	Water	SM 2540C	
400-135669-29	GWC-23	Total/NA	Water	SM 2540C	
400-135669-30	GWC-22	Total/NA	Water	SM 2540C	
400-135669-31	GWC-21	Total/NA	Water	SM 2540C	
400-135669-32	GWC-24	Total/NA	Water	SM 2540C	
MB 400-348117/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-348117/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135669-28 DU	GWC-20	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-348098/4**  
**Matrix: Water**  
**Analysis Batch: 348098**

**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			04/02/17 10:25	1
Fluoride	<0.082		0.20	0.082	mg/L			04/02/17 10:25	1
Sulfate	<0.70		1.0	0.70	mg/L			04/02/17 10:25	1

**Lab Sample ID: LCS 400-348098/5**  
**Matrix: Water**  
**Analysis Batch: 348098**

**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	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-348098/6**  
**Matrix: Water**  
**Analysis Batch: 348098**

**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	10.5		mg/L		105	90 - 110	2	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

**Lab Sample ID: 400-135669-28 MS**  
**Matrix: Water**  
**Analysis Batch: 348098**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.8		10.0	11.4		mg/L		96	80 - 120
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120
Sulfate	0.75	J	10.0	10.9		mg/L		102	80 - 120

**Lab Sample ID: 400-135669-28 MSD**  
**Matrix: Water**  
**Analysis Batch: 348098**

**Client Sample ID: GWC-20**  
**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		10.0	11.4		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120	1	20
Sulfate	0.75	J	10.0	10.9		mg/L		102	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-348297/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/04/17 09:01	04/06/17 14:50	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/04/17 09:01	04/06/17 14:50	5

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-348297/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		04/04/17 09:01	04/06/17 14:50	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:50	5
Boron	<0.021		0.050	0.021	mg/L		04/04/17 09:01	04/06/17 14:50	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/04/17 09:01	04/06/17 14:50	5
Calcium	<0.13		0.25	0.13	mg/L		04/04/17 09:01	04/06/17 14:50	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/04/17 09:01	04/06/17 14:50	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/04/17 09:01	04/06/17 14:50	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/04/17 09:01	04/06/17 14:50	5
Lithium	<0.0032		0.0050	0.0032	mg/L		04/04/17 09:01	04/06/17 14:50	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		04/04/17 09:01	04/06/17 14:50	5
Selenium	<0.00024		0.0013	0.00024	mg/L		04/04/17 09:01	04/06/17 14:50	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/04/17 09:01	04/06/17 14:50	5

**Lab Sample ID: LCS 400-348297/2-A**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0541		mg/L		108	80 - 120
Arsenic	0.0500	0.0508		mg/L		102	80 - 120
Barium	0.0500	0.0483		mg/L		97	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Boron	0.100	0.104		mg/L		104	80 - 120
Cadmium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Chromium	0.0500	0.0486		mg/L		97	80 - 120
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Lead	0.0500	0.0512		mg/L		102	80 - 120
Lithium	0.0500	0.0510		mg/L		102	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

**Lab Sample ID: 400-135669-C-17-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0569		mg/L		114	75 - 125
Arsenic	0.00067	J	0.0500	0.0524		mg/L		103	75 - 125
Barium	0.0032		0.0500	0.0528		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0539		mg/L		108	75 - 125
Boron	<0.021		0.100	0.120		mg/L		120	75 - 125
Cadmium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125
Calcium	3.9		5.00	8.50		mg/L		93	75 - 125
Chromium	<0.0011		0.0500	0.0547		mg/L		109	75 - 125
Cobalt	<0.00040		0.0500	0.0526		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0521		mg/L		104	75 - 125
Lithium	<0.0032		0.0500	0.0520		mg/L		104	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-135669-C-17-C MS ^5**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.0047	J	0.100	0.113		mg/L		108	75 - 125
Selenium	0.0021		0.0500	0.0567		mg/L		109	75 - 125
Thallium	<0.000085		0.0100	0.0109		mg/L		109	75 - 125

**Lab Sample ID: 400-135669-C-17-D MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 348836**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 348297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0555		mg/L		111	75 - 125	2	20
Arsenic	0.00067	J	0.0500	0.0529		mg/L		105	75 - 125	1	20
Barium	0.0032		0.0500	0.0515		mg/L		97	75 - 125	3	20
Beryllium	<0.00034		0.0500	0.0524		mg/L		105	75 - 125	3	20
Boron	<0.021		0.100	0.123		mg/L		123	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	0	20
Calcium	3.9		5.00	8.45		mg/L		92	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0538		mg/L		108	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0534		mg/L		107	75 - 125	2	20
Lead	<0.00035		0.0500	0.0528		mg/L		106	75 - 125	1	20
Lithium	<0.0032		0.0500	0.0538		mg/L		108	75 - 125	3	20
Molybdenum	0.0047	J	0.100	0.104		mg/L		99	75 - 125	8	20
Selenium	0.0021		0.0500	0.0541		mg/L		104	75 - 125	5	20
Thallium	<0.000085		0.0100	0.0110		mg/L		110	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-348216/14-A**  
**Matrix: Water**  
**Analysis Batch: 348912**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 348216**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		04/03/17 12:22	04/07/17 13:15	1

**Lab Sample ID: LCS 400-348216/15-A**  
**Matrix: Water**  
**Analysis Batch: 348912**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 348216**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000885		mg/L		88	80 - 120

**Lab Sample ID: 400-135908-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 348912**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 348216**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00189		mg/L		94	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-3  
 SDG: Gypsum Landfill

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 400-135908-B-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 348912**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 348216**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00190		mg/L		94	80 - 120	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-348117/1**  
**Matrix: Water**  
**Analysis Batch: 348117**

**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			04/02/17 12:58	1

**Lab Sample ID: LCS 400-348117/2**  
**Matrix: Water**  
**Analysis Batch: 348117**

**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: 400-135669-28 DU**  
**Matrix: Water**  
**Analysis Batch: 348117**

**Client Sample ID: GWC-20**  
**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**

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

<b>Client Information</b> 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: Plant Wansley - Gypsum Landfill Site: CCR		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Job #:	
<b>Sample Information</b> Sampler: T. Payne (P, C, Hurdle & M. Thomas IRT) Phone: Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSOW#:		<b>Analysis Requested</b>  400-136669 COC Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 TSP - SM 2540C ; Cl, F, SO4 - EPA 300 Permitted MSD (Yes or No) Field Filtered Sample (Yes or No)	
<b>Sample Identification</b>		<b>Preservation Codes:</b> A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amehlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify)	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<b>Special Instructions/Note:</b> Total Number of Containers:	
<b>Deliverable Requested:</b> 1, II, III, IV, Other (specify)		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
<b>Empty Kit Relinquished by:</b>		<b>Method of Shipment:</b>	
<b>Relinquished by:</b>		<b>Date/Time:</b>	
<b>Relinquished by:</b>		<b>Date/Time:</b>	
<b>Relinquished by:</b>		<b>Date/Time:</b>	
<b>Custody Seals Intact:</b>		<b>Cooler Temperature(s) °C and Other Remarks:</b>	

**TESTAMERICA**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**681-Atlanta**

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b> Client Contact: Jofu 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: Plant Wansley - Gypsum Landfill Site: CCR		Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Job #:	
<b>Sample Identification</b> Sample ID: GWC-24 Sample Date: 3/29/17 Sample Time: 0950 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=air): W		<b>Analysis Requested</b> Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 TD5 - SM 2540C : Cl,F,S04 - EPA 300 Perform MSD (Est. No.) Field Filtered Sample (Yes or No)	
<b>Sample Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/30/17 9:40 Company: [Signature]		<b>Sample Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/31/17 Company: [Signature]	
<b>Possible Hazard Identification</b> <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		<b>Special Instructions/QC Requirements:</b> <input type="checkbox"/> Return To Client <input checked="" 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)	
<b>Empty Kit Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/30/17 1600 Company: [Signature]		<b>Empty Kit Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/30/17 9:40 Company: [Signature]	
<b>Custody Seals Intact:</b> Custody Seal No.: 31602202		<b>Cooler Temperature(s) °C and Other Remarks:</b> 31.6°C	



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135669-3  
SDG Number: Gypsum Landfill

**Login Number: 135669**  
**List Number: 1**  
**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	4.7°C, 2.4°C, 3.2°C IR-7, 3.6°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 Wansley

TestAmerica Job ID: 400-135669-3  
SDG: Gypsum Landfill

## 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: 400-135669-4

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR Plant Wansley

For:

Southern Company

241 Ralph McGill Blvd SE

B10185

Atlanta, Georgia 30308

Attn: Joju Abraham



Authorized for release by:

4/28/2017 5:34:50 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

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**Job ID: 400-135669-4**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-135669-4**

**RAD**

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-301895. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-301895. 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 160-301890. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-301890. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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# Method Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135669-28	GWC-20	Water	03/28/17 11:00	03/31/17 08:50
400-135669-29	GWC-23	Water	03/28/17 11:20	03/31/17 08:50
400-135669-30	GWC-22	Water	03/28/17 11:55	03/31/17 08:50
400-135669-31	GWC-21	Water	03/28/17 12:25	03/31/17 08:50
400-135669-32	GWC-24	Water	03/29/17 09:50	03/31/17 08:50

- 1
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# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 03/28/17 11:00**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-28**

**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	0.00193	U	0.0467	0.0467	1.00	0.0952	pCi/L	04/06/17 11:07	04/28/17 07:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/06/17 11:07	04/28/17 07:45	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0130	U	0.172	0.172	1.00	0.313	pCi/L	04/06/17 11:42	04/13/17 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					04/06/17 11:42	04/13/17 14:58	1
Y Carrier	92.0		40 - 110					04/06/17 11:42	04/13/17 14:58	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	-0.0111	U	0.178	0.178	5.00	0.313	pCi/L		04/28/17 15:50	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 03/28/17 11:20**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-29**

**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	0.0217	U	0.0499	0.0499	1.00	0.0913	pCi/L	04/06/17 11:07	04/28/17 07:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					04/06/17 11:07	04/28/17 07:45	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.198	0.199	1.00	0.317	pCi/L	04/06/17 11:42	04/13/17 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					04/06/17 11:42	04/13/17 14:58	1
Y Carrier	92.3		40 - 110					04/06/17 11:42	04/13/17 14:58	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	0.247	U	0.204	0.205	5.00	0.317	pCi/L		04/28/17 15:50	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**  
**Date Collected: 03/28/17 11:55**  
**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-30**  
**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	0.0398	U	0.0546	0.0548	1.00	0.0921	pCi/L	04/06/17 11:07	04/28/17 07:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/06/17 11:07	04/28/17 07:45	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.211	U	0.192	0.193	1.00	0.307	pCi/L	04/06/17 11:42	04/13/17 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/06/17 11:42	04/13/17 14:58	1
Y Carrier	86.4		40 - 110					04/06/17 11:42	04/13/17 14:58	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	0.251	U	0.199	0.200	5.00	0.307	pCi/L		04/28/17 15:50	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-21**  
**Date Collected: 03/28/17 12:25**  
**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-31**  
**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	0.0220	U	0.0456	0.0456	1.00	0.0829	pCi/L	04/06/17 11:07	04/28/17 07:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/06/17 11:07	04/28/17 07:45	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	0.180	0.180	1.00	0.305	pCi/L	04/06/17 11:42	04/13/17 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/06/17 11:42	04/13/17 14:58	1
Y Carrier	89.0		40 - 110					04/06/17 11:42	04/13/17 14:58	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	0.185	0.185	5.00	0.305	pCi/L		04/28/17 15:50	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Date Collected: 03/29/17 09:50**

**Date Received: 03/31/17 08:50**

**Lab Sample ID: 400-135669-32**

**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	0.0501	U	0.0530	0.0532	1.00	0.0836	pCi/L	04/06/17 11:07	04/28/17 07:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					04/06/17 11:07	04/28/17 07:45	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	0.218	0.218	1.00	0.362	pCi/L	04/06/17 11:42	04/13/17 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					04/06/17 11:42	04/13/17 14:58	1
Y Carrier	93.5		40 - 110					04/06/17 11:42	04/13/17 14:58	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	0.215	U	0.224	0.224	5.00	0.362	pCi/L		04/28/17 15:50	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-135669-28**

**Date Collected: 03/28/17 11:00**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			301890	04/06/17 11:07	LDE	TAL SL
Total/NA	Analysis	9315		1	306056	04/28/17 07:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			301895	04/06/17 11:42	LDE	TAL SL
Total/NA	Analysis	9320		1	303352	04/13/17 14:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	306269	04/28/17 15:50	RTM	TAL SL

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-135669-29**

**Date Collected: 03/28/17 11:20**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			301890	04/06/17 11:07	LDE	TAL SL
Total/NA	Analysis	9315		1	306056	04/28/17 07:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			301895	04/06/17 11:42	LDE	TAL SL
Total/NA	Analysis	9320		1	303352	04/13/17 14:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	306269	04/28/17 15:50	RTM	TAL SL

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-135669-30**

**Date Collected: 03/28/17 11:55**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			301890	04/06/17 11:07	LDE	TAL SL
Total/NA	Analysis	9315		1	306056	04/28/17 07:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			301895	04/06/17 11:42	LDE	TAL SL
Total/NA	Analysis	9320		1	303352	04/13/17 14:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	306269	04/28/17 15:50	RTM	TAL SL

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-135669-31**

**Date Collected: 03/28/17 12:25**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			301890	04/06/17 11:07	LDE	TAL SL
Total/NA	Analysis	9315		1	306056	04/28/17 07:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			301895	04/06/17 11:42	LDE	TAL SL
Total/NA	Analysis	9320		1	303352	04/13/17 14:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	306269	04/28/17 15:50	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-135669-32**

**Date Collected: 03/29/17 09:50**

**Matrix: Water**

**Date Received: 03/31/17 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			301890	04/06/17 11:07	LDE	TAL SL
Total/NA	Analysis	9315		1	306056	04/28/17 07:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			301895	04/06/17 11:42	LDE	TAL SL
Total/NA	Analysis	9320		1	303352	04/13/17 14:58	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	306269	04/28/17 15:50	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 Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 301890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total/NA	Water	PrecSep-21	
400-135669-29	GWC-23	Total/NA	Water	PrecSep-21	
400-135669-30	GWC-22	Total/NA	Water	PrecSep-21	
400-135669-31	GWC-21	Total/NA	Water	PrecSep-21	
400-135669-32	GWC-24	Total/NA	Water	PrecSep-21	
MB 160-301890/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-301890/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-301890/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 301895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135669-28	GWC-20	Total/NA	Water	PrecSep_0	
400-135669-29	GWC-23	Total/NA	Water	PrecSep_0	
400-135669-30	GWC-22	Total/NA	Water	PrecSep_0	
400-135669-31	GWC-21	Total/NA	Water	PrecSep_0	
400-135669-32	GWC-24	Total/NA	Water	PrecSep_0	
MB 160-301895/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-301895/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-301895/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-301890/1-A**  
**Matrix: Water**  
**Analysis Batch: 306056**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 301890**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.002450	U	0.0425	0.0425	1.00	0.0872	pCi/L	04/06/17 11:07	04/28/17 07:43	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	97.9		40 - 110	04/06/17 11:07	04/28/17 07:43	1				

**Lab Sample ID: LCS 160-301890/2-A**  
**Matrix: Water**  
**Analysis Batch: 306056**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 301890**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.65		1.09	1.00	0.0976	pCi/L	94	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	100		40 - 110	04/06/17 11:07	04/28/17 07:43	1			

**Lab Sample ID: LCSD 160-301890/3-A**  
**Matrix: Water**  
**Analysis Batch: 306056**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 301890**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.4	10.39		1.06	1.00	0.0798	pCi/L	91	68 - 137	0.12	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed						
Ba Carrier	105		40 - 110	04/06/17 11:42	04/13/17 14:56	1					

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-301895/1-A**  
**Matrix: Water**  
**Analysis Batch: 303352**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 301895**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.07132	U	0.199	0.199	1.00	0.366	pCi/L	04/06/17 11:42	04/13/17 14:56	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	97.9		40 - 110	04/06/17 11:42	04/13/17 14:56	1				
Y Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Y Carrier	%Yield	Qualifier		Prepared	Analyzed					
Y Carrier	87.1		40 - 110	04/06/17 11:42	04/13/17 14:56	1				

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
 SDG: Gypsum Landfill

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-301895/2-A**  
**Matrix: Water**  
**Analysis Batch: 303352**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 301895**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.6	13.96		1.48	1.00	0.327	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	88.6		40 - 110

**Lab Sample ID: LCSD 160-301895/3-A**  
**Matrix: Water**  
**Analysis Batch: 303352**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 301895**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.6	14.07		1.48	1.00	0.327	pCi/L	104	56 - 140	0.04	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	86.7		40 - 110

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

# 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** T. Payne (P, C, Hurdle & M. Thomas IRT)  
**Lab PM:** Whitmire, Cheyenne R  
**Carrier Tracking No(s):**  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

**Sample Identification**

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Permitted MSD (Yes or No)	TDS - SM 2540C ; Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWC-20	3/28/17	1100	G	W	X	X	X	X	X		
GWC-23	3/28/17	1120	G	W	X	X	X	X	X		
GWC-22	3/28/17	1155	G	W	X	X	X	X	X		
GWC-21	3/28/17	1225	G	W	X	X	X	X	X		

**Preservation Codes:**  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Amehlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 X - EDTA  
 Y - EDA  
 Z - other (specify)  
 Other:

**Analysis Requested**

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Deliverable Requested:**  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date/Time: 3/30/17 9:40 AM Company: RA  
**Relinquished by:** \_\_\_\_\_ Date/Time: 3/31/17 0850 Company: RA  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Method of Shipment:** \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seals Intact:**  Custody Seal No.: 3.6°C Jar 2





**TESTAMERICA**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**681-Atlanta**

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b> Client Contact: Jofu 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: Plant Wansley - Gypsum Landfill Site: CCR		Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Job #:	
<b>Sample Identification</b> GWC-24 Sample Date: 3/29/17 Sample Time: 0950 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=air): W		<b>Analysis Requested</b> TD5 - SM 2540C : Cl, F, SO4 - EPA 300 Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470 Radium 226 & 228 - SW-846 9315 & 9320 Total Number of Containers:	
<b>Sample Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/30/17 9:40 Company: [Signature] Company		<b>Sample Disposal</b> ( 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:	
<b>Empty Kit Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/30/17 1600 Company: [Signature] Company		<b>Method of Shipment:</b> Date/Time: 3/30/17 9:40 Company: [Signature] Company	
<b>Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/30/17 9:40 Company: [Signature] Company		<b>Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/31/17 Company: [Signature] Company	
<b>Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/31/17 Company: [Signature] Company		<b>Relinquished by:</b> Relinquished by: [Signature] Date/Time: 3/31/17 Company: [Signature] Company	
<b>Custody Seals Intact:</b> Custody Seal No.: 31602202		<b>Cooler Temperature(s) °C and Other Remarks:</b> 31602202	



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-135669-4  
SDG Number: Gypsum Landfill

**Login Number: 135669**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	4.7°C, 2.4°C, 3.2°C IR-7, 3.6°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 Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

## 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

## 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	03-31-17 *
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	03-31-18

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR Plant Wansley

TestAmerica Job ID: 400-135669-4  
SDG: Gypsum Landfill

## 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	02-28-18
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 *

\* 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: 400-137272-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR - Plant Wansley

For:

Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

5/17/2017 10:41:19 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

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**Job ID: 400-137272-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative**  
**400-137272-1**

**Metals**

Method(s) 6020: The serial dilution performed for the following sample associated with batch 353184 was outside control limits:  
(400-137193-J-12-A SD)

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# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Client Sample ID: GWA-29

## Lab Sample ID: 400-137272-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	8.0		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00064	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.00097	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0019	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	3.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.032		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0012	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-137272-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.13		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0052		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0032	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-28

## Lab Sample ID: 400-137272-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.20	0.082	mg/L	1		300.0	Total/NA
Beryllium	0.00042	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	2.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.016		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0076	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-137272-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.96	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.83		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	2.1		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 Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-27 (Continued)

## Lab Sample ID: 400-137272-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00075	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	0.88		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0026		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.00018	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-1

## Lab Sample ID: 400-137272-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.0091		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.72		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00044	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWA-2

## Lab Sample ID: 400-137272-6

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	1.7		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00045	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

## Client Sample ID: FB-1

## Lab Sample ID: 400-137272-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137272-1	GWA-29	Water	04/27/17 14:15	04/29/17 08:54
400-137272-2	GWA-4	Water	04/27/17 15:18	04/29/17 08:54
400-137272-3	GWA-28	Water	04/27/17 16:15	04/29/17 08:54
400-137272-4	GWC-27	Water	04/28/17 10:22	04/29/17 08:54
400-137272-5	GWA-1	Water	04/28/17 11:15	04/29/17 08:54
400-137272-6	GWA-2	Water	04/28/17 11:35	04/29/17 08:54
400-137272-7	FB-1	Water	04/28/17 12:08	04/29/17 08:54

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 04/27/17 14:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-1**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			05/03/17 18:53	1
Fluoride	2.5		0.20	0.082	mg/L			05/03/17 18:53	1
Sulfate	8.0		1.0	0.70	mg/L			05/03/17 18:53	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		05/09/17 15:33	05/10/17 13:07	5
Arsenic	0.00064	J	0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 13:07	5
Barium	0.00097	J	0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 13:07	5
Beryllium	0.0019	J	0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:07	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 13:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:07	5
Calcium	3.9		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 13:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 13:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 13:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 13:07	5
Lithium	0.032		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 13:07	5
Molybdenum	0.0012	J	0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 13:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 13:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 13:07	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		05/06/17 13:31	05/09/17 11:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			05/02/17 17:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 04/27/17 15:18**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>15</b>		1.0	0.89	mg/L			05/03/17 19:16	1
Fluoride	<0.082		0.20	0.082	mg/L			05/03/17 19:16	1
<b>Sulfate</b>	<b>9.6</b>		1.0	0.70	mg/L			05/03/17 19:16	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		05/09/17 15:33	05/10/17 13:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 13:30	5
<b>Barium</b>	<b>0.13</b>		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 13:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:30	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 13:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:30	5
<b>Calcium</b>	<b>27</b>		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 13:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 13:30	5
<b>Cobalt</b>	<b>0.0052</b>		0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 13:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 13:30	5
<b>Lithium</b>	<b>0.0032</b>	<b>J</b>	0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 13:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 13:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 13:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 13:30	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		05/06/17 13:31	05/09/17 11:29	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>160</b>		5.0	3.4	mg/L			05/02/17 17:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 04/27/17 16:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-3**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			05/03/17 20:01	1
Fluoride	1.4		0.20	0.082	mg/L			05/03/17 20:01	1
Sulfate	<0.70		1.0	0.70	mg/L			05/03/17 20:01	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		05/09/17 15:33	05/10/17 13:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 13:34	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 13:34	5
Beryllium	0.00042	J	0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:34	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 13:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:34	5
Calcium	2.4		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 13:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 13:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 13:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 13:34	5
Lithium	0.016		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 13:34	5
Molybdenum	0.0076	J	0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 13:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 13:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 13:34	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		05/06/17 13:31	05/09/17 11:31	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			05/03/17 16:23	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**

**Date Collected: 04/28/17 10:22**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-4**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.96	J	1.0	0.89	mg/L			05/03/17 20:24	1
Fluoride	0.83		0.20	0.082	mg/L			05/03/17 20:24	1
Sulfate	2.1		1.0	0.70	mg/L			05/03/17 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		05/09/17 15:33	05/10/17 13:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 13:39	5
Barium	0.0097		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 13:39	5
Beryllium	0.00075	J	0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:39	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 13:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:39	5
Calcium	0.88		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 13:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 13:39	5
Cobalt	0.0026		0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 13:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 13:39	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 13:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 13:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 13:39	5
Thallium	0.00018	J	0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 13:39	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		05/06/17 13:31	05/09/17 11:33	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	46		5.0	3.4	mg/L			05/03/17 16:23	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 04/28/17 11:15**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-5**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			05/03/17 20:47	1
Fluoride	<0.082		0.20	0.082	mg/L			05/03/17 20:47	1
Sulfate	<0.70		1.0	0.70	mg/L			05/03/17 20:47	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		05/09/17 15:33	05/10/17 13:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 13:43	5
<b>Barium</b>	<b>0.0091</b>		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 13:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:43	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 13:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 13:43	5
<b>Calcium</b>	<b>0.72</b>		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 13:43	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 13:43	5
<b>Cobalt</b>	<b>0.00044</b>	<b>J</b>	0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 13:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 13:43	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 13:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 13:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 13:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 13:43	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		05/06/17 13:31	05/09/17 11:34	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			05/03/17 16:23	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 04/28/17 11:35**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-6**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.7</b>		1.0	0.89	mg/L			05/03/17 21:56	1
Fluoride	<0.082		0.20	0.082	mg/L			05/03/17 21:56	1
<b>Sulfate</b>	<b>1.7</b>		1.0	0.70	mg/L			05/03/17 21:56	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		05/09/17 15:33	05/10/17 14:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 14:51	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 14:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 14:51	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 14:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 14:51	5
<b>Calcium</b>	<b>3.9</b>		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 14:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 14:51	5
<b>Cobalt</b>	<b>0.00045</b>	<b>J</b>	0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 14:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 14:51	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 14:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 14:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 14:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 14:51	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		05/06/17 13:31	05/09/17 11:36	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			05/03/17 16:23	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 04/28/17 12:08**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-7**  
**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			05/03/17 22:18	1
Fluoride	<0.082		0.20	0.082	mg/L			05/03/17 22:18	1
Sulfate	<0.70		1.0	0.70	mg/L			05/03/17 22:18	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		05/09/17 15:33	05/10/17 14:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 14:55	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 14:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 14:55	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 14:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 14:55	5
Calcium	<0.13		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 14:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 14:55	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 14:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 14:55	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 14:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 14:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 14:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 14:55	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		05/06/17 13:31	05/09/17 12:26	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			05/03/17 16:23	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## 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.
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.

## 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 Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 04/27/17 14:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 18:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 13:07	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 11:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352058	05/02/17 17:02	TET	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 04/27/17 15:18**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 19:16	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 13:30	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 11:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352058	05/02/17 17:02	TET	TAL PEN

**Client Sample ID: GWA-28**

**Date Collected: 04/27/17 16:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 20:01	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 13:34	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 11:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352202	05/03/17 16:23	TET	TAL PEN

**Client Sample ID: GWC-27**

**Date Collected: 04/28/17 10:22**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 20:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 13:39	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 11:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352202	05/03/17 16:23	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**

**Date Collected: 04/28/17 11:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 20:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 13:43	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 11:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352202	05/03/17 16:23	TET	TAL PEN

**Client Sample ID: GWA-2**

**Date Collected: 04/28/17 11:35**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 21:56	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 14:51	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 11:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352202	05/03/17 16:23	TET	TAL PEN

**Client Sample ID: FB-1**

**Date Collected: 04/28/17 12:08**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352273	05/03/17 22:18	TAJ	TAL PEN
Total Recoverable	Prep	3005A			352959	05/09/17 15:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353184	05/10/17 14:55	DRE	TAL PEN
Total/NA	Prep	7470A			352397	05/06/17 13:31	DN1	TAL PEN
Total/NA	Analysis	7470A		1	352945	05/09/17 12:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352202	05/03/17 16:23	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 Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 352273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total/NA	Water	300.0	
400-137272-2	GWA-4	Total/NA	Water	300.0	
400-137272-3	GWA-28	Total/NA	Water	300.0	
400-137272-4	GWC-27	Total/NA	Water	300.0	
400-137272-5	GWA-1	Total/NA	Water	300.0	
400-137272-6	GWA-2	Total/NA	Water	300.0	
400-137272-7	FB-1	Total/NA	Water	300.0	
MB 400-352273/4	Method Blank	Total/NA	Water	300.0	
LCS 400-352273/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-352273/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-137343-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-137343-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 352397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total/NA	Water	7470A	
400-137272-2	GWA-4	Total/NA	Water	7470A	
400-137272-3	GWA-28	Total/NA	Water	7470A	
400-137272-4	GWC-27	Total/NA	Water	7470A	
400-137272-5	GWA-1	Total/NA	Water	7470A	
400-137272-6	GWA-2	Total/NA	Water	7470A	
400-137272-7	FB-1	Total/NA	Water	7470A	
MB 400-352397/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-352397/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-137351-D-1-E MS	Matrix Spike	Total/NA	Water	7470A	
400-137351-D-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 352945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total/NA	Water	7470A	352397
400-137272-2	GWA-4	Total/NA	Water	7470A	352397
400-137272-3	GWA-28	Total/NA	Water	7470A	352397
400-137272-4	GWC-27	Total/NA	Water	7470A	352397
400-137272-5	GWA-1	Total/NA	Water	7470A	352397
400-137272-6	GWA-2	Total/NA	Water	7470A	352397
400-137272-7	FB-1	Total/NA	Water	7470A	352397
MB 400-352397/14-A	Method Blank	Total/NA	Water	7470A	352397
LCS 400-352397/15-A	Lab Control Sample	Total/NA	Water	7470A	352397
400-137351-D-1-E MS	Matrix Spike	Total/NA	Water	7470A	352397
400-137351-D-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	352397

### Prep Batch: 352959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total Recoverable	Water	3005A	
400-137272-2	GWA-4	Total Recoverable	Water	3005A	
400-137272-3	GWA-28	Total Recoverable	Water	3005A	
400-137272-4	GWC-27	Total Recoverable	Water	3005A	
400-137272-5	GWA-1	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 352959 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-6	GWA-2	Total Recoverable	Water	3005A	
400-137272-7	FB-1	Total Recoverable	Water	3005A	
MB 400-352959/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-352959/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-137193-J-12-B MS ^5	Matrix Spike	Dissolved	Water	3005A	
400-137193-J-12-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Analysis Batch: 353184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total Recoverable	Water	6020	352959
400-137272-2	GWA-4	Total Recoverable	Water	6020	352959
400-137272-3	GWA-28	Total Recoverable	Water	6020	352959
400-137272-4	GWC-27	Total Recoverable	Water	6020	352959
400-137272-5	GWA-1	Total Recoverable	Water	6020	352959
400-137272-6	GWA-2	Total Recoverable	Water	6020	352959
400-137272-7	FB-1	Total Recoverable	Water	6020	352959
MB 400-352959/1-A ^5	Method Blank	Total Recoverable	Water	6020	352959
LCS 400-352959/2-A	Lab Control Sample	Total Recoverable	Water	6020	352959
400-137193-J-12-B MS ^5	Matrix Spike	Dissolved	Water	6020	352959
400-137193-J-12-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	6020	352959

## General Chemistry

### Analysis Batch: 352058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total/NA	Water	SM 2540C	
400-137272-2	GWA-4	Total/NA	Water	SM 2540C	
MB 400-352058/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-352058/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137162-A-7 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 352202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-3	GWA-28	Total/NA	Water	SM 2540C	
400-137272-4	GWC-27	Total/NA	Water	SM 2540C	
400-137272-5	GWA-1	Total/NA	Water	SM 2540C	
400-137272-6	GWA-2	Total/NA	Water	SM 2540C	
400-137272-7	FB-1	Total/NA	Water	SM 2540C	
MB 400-352202/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-352202/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137272-3 DU	GWA-28	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-352273/4**  
**Matrix: Water**  
**Analysis Batch: 352273**

**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			05/03/17 12:02	1
Fluoride	<0.082		0.20	0.082	mg/L			05/03/17 12:02	1
Sulfate	<0.70		1.0	0.70	mg/L			05/03/17 12:02	1

**Lab Sample ID: LCS 400-352273/5**  
**Matrix: Water**  
**Analysis Batch: 352273**

**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	10.3		mg/L		103	90 - 110

**Lab Sample ID: LCSD 400-352273/6**  
**Matrix: Water**  
**Analysis Batch: 352273**

**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	1	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

**Lab Sample ID: 400-137343-E-1 MS**  
**Matrix: Water**  
**Analysis Batch: 352273**

**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	720	E	100	819	E 4	mg/L		100	80 - 120
Fluoride	<0.82		100	107		mg/L		107	80 - 120
Sulfate	<7.0		100	106		mg/L		106	80 - 120

**Lab Sample ID: 400-137343-E-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 352273**

**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	720	E	100	822	E 4	mg/L		102	80 - 120	0	20
Fluoride	<0.82		100	108		mg/L		108	80 - 120	1	20
Sulfate	<7.0		100	104		mg/L		104	80 - 120	2	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-352959/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 353184**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352959**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		05/09/17 15:33	05/10/17 12:27	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/09/17 15:33	05/10/17 12:27	5

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# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-352959/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 353184**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352959**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		05/09/17 15:33	05/10/17 12:27	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 12:27	5
Boron	<0.021		0.050	0.021	mg/L		05/09/17 15:33	05/10/17 12:27	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/09/17 15:33	05/10/17 12:27	5
Calcium	<0.13		0.25	0.13	mg/L		05/09/17 15:33	05/10/17 12:27	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/09/17 15:33	05/10/17 12:27	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/09/17 15:33	05/10/17 12:27	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/09/17 15:33	05/10/17 12:27	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/09/17 15:33	05/10/17 12:27	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/09/17 15:33	05/10/17 12:27	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/09/17 15:33	05/10/17 12:27	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/09/17 15:33	05/10/17 12:27	5

**Lab Sample ID: LCS 400-352959/2-A**  
**Matrix: Water**  
**Analysis Batch: 353184**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 352959**

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	0.0509		mg/L		102	80 - 120
Barium	0.0500	0.0462		mg/L		92	80 - 120
Beryllium	0.0500	0.0494		mg/L		99	80 - 120
Boron	0.100	0.0957		mg/L		96	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	5.00	4.78		mg/L		96	80 - 120
Chromium	0.0500	0.0475		mg/L		95	80 - 120
Cobalt	0.0500	0.0502		mg/L		100	80 - 120
Lead	0.0500	0.0491		mg/L		98	80 - 120
Lithium	0.0500	0.0509		mg/L		102	80 - 120
Molybdenum	0.100	0.0990		mg/L		99	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.00999		mg/L		100	80 - 120

**Lab Sample ID: 400-137193-J-12-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 353184**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 352959**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0546		mg/L		109	75 - 125
Arsenic	0.12		0.0500	0.172		mg/L		98	75 - 125
Barium	0.00071	J	0.0500	0.0474		mg/L		93	75 - 125
Beryllium	<0.00034		0.0500	0.0497		mg/L		99	75 - 125
Boron	0.077		0.100	0.179		mg/L		102	75 - 125
Cadmium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125
Calcium	150	E	5.00	155	E 4	mg/L		121	75 - 125
Chromium	<0.0011		0.0500	0.0474		mg/L		95	75 - 125
Cobalt	0.0064		0.0500	0.0547		mg/L		97	75 - 125
Lead	<0.00035		0.0500	0.0491		mg/L		98	75 - 125
Lithium	0.18		0.0500	0.231		mg/L		98	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-137193-J-12-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 353184**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 352959**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Molybdenum	0.0031	J	0.100	0.101		mg/L		98	75 - 125
Selenium	0.0016		0.0500	0.0429		mg/L		83	75 - 125
Thallium	<0.000085		0.0100	0.0100		mg/L		100	75 - 125

**Lab Sample ID: 400-137193-J-12-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 353184**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 352959**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0535		mg/L		107	75 - 125	2	20
Arsenic	0.12		0.0500	0.171		mg/L		97	75 - 125	0	20
Barium	0.00071	J	0.0500	0.0477		mg/L		94	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0495		mg/L		99	75 - 125	0	20
Boron	0.077		0.100	0.173		mg/L		96	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0516		mg/L		103	75 - 125	0	20
Calcium	150	E	5.00	154	E 4	mg/L		94	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0475		mg/L		95	75 - 125	0	20
Cobalt	0.0064		0.0500	0.0538		mg/L		95	75 - 125	2	20
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125	1	20
Lithium	0.18		0.0500	0.226		mg/L		88	75 - 125	2	20
Molybdenum	0.0031	J	0.100	0.0986		mg/L		96	75 - 125	2	20
Selenium	0.0016		0.0500	0.0425		mg/L		82	75 - 125	1	20
Thallium	<0.000085		0.0100	0.00977		mg/L		98	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-352397/14-A**  
**Matrix: Water**  
**Analysis Batch: 352945**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 352397**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/06/17 13:31	05/09/17 10:31	1

**Lab Sample ID: LCS 400-352397/15-A**  
**Matrix: Water**  
**Analysis Batch: 352945**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 352397**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000978		mg/L		97	80 - 120

**Lab Sample ID: 400-137351-D-1-E MS**  
**Matrix: Water**  
**Analysis Batch: 352945**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 352397**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00194		mg/L		96	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-1  
SDG: Gypsum Landfill

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 400-137351-D-1-F MSD**  
**Matrix: Water**  
**Analysis Batch: 352945**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 352397**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00196		mg/L		97	80 - 120	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-352058/1**  
**Matrix: Water**  
**Analysis Batch: 352058**

**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			05/02/17 17:02	1

**Lab Sample ID: LCS 400-352058/2**  
**Matrix: Water**  
**Analysis Batch: 352058**

**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: 400-137162-A-7 DU**  
**Matrix: Water**  
**Analysis Batch: 352058**

**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	100		100		mg/L		0	5

**Lab Sample ID: MB 400-352202/1**  
**Matrix: Water**  
**Analysis Batch: 352202**

**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			05/03/17 16:23	1

**Lab Sample ID: LCS 400-352202/2**  
**Matrix: Water**  
**Analysis Batch: 352202**

**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: 400-137272-3 DU**  
**Matrix: Water**  
**Analysis Batch: 352202**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	84		82.0		mg/L		2	5

TestAmerica Pensacola

3355 McLemore Drive  
Perisacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 Client Contact: Joju Abraham  
 Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State: GA, Zip: 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** T Payne TP, T. Thomas II, M. Rogers HR  
**Lab PM:** Whitmire, Cheyenne R  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**GOC No.:**  
**Page:**  
**Job #:** 400-137272

**Analysis Requested**

**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

**Field Filtered Sample (Yes or No)**  **Perform MS/MSD (Yes or No)**   
**Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470**  **Radium 226 & 228 - SW-846 9315 & 9320**   
**TDS - SM 2540C; Cl, F, SO4 - EPA 300**  **Total Number of containers**

**Special Instructions/Note:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, AT=TISSUE, A=AL)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:
GWA-29	4/27/17	1415	G	W	D	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	3	
GWA-4	4/27/17	1518	G	W	D	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	3	
GWA-28	4/27/17	1615	G	W	D	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Deliverable Requested:** I, II, III, IV, Other (specify)

**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:** 4/28/17 1505  
 \_\_\_\_\_ **Date/Time:** 4/28/17 1505  
 \_\_\_\_\_ **Date/Time:** 4/29/17 0854

**Company:** \_\_\_\_\_ **Company:** TA  
 \_\_\_\_\_ **Company:** TA-PAU  
 \_\_\_\_\_ **Company:** \_\_\_\_\_

**Relinquished by:** \_\_\_\_\_ **Date/Time:** \_\_\_\_\_

**Cooler Temperature(s) °C and Other Remarks:** 0.0C 15.0C 7.8

**Custody Seal No.:** \_\_\_\_\_



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: T Payne TP, T. Thomas TT, M. Rogers HR  
 Lab PM: Whitmire, Cheyenne R  
 Client Contact: Joju Abraham  
 Phone: cheyenne.whitmire@testamericainc.com  
 E-Mail: cheyenne.whitmire@testamericainc.com

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: Plant Wansley - Gypsum Landfill  
 Site: OCR

Carrier Tracking No(s):  
 Lab PM: Whitmire, Cheyenne R  
 E-Mail: cheyenne.whitmire@testamericainc.com

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320
GWC-27	4/28/17	1022	G	W	X	X	X	X	X
GWA-1	4/28/17	1115	G	W	X	X	X	X	X
GWA-2	4/28/17	1135	G	W	X	X	X	X	X
FB-1	4/28/17	1208	G	W	X	X	X	X	X

Special Instructions/Note:  
 Total Number of containers: 4  
 Extra radium sample collected for lab QA/QC

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 Dodecylhydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 Z - other (specify)

Analysis Requested

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 4/28/17 1505  
 Relinquished by: \_\_\_\_\_ Date/Time: 4/28/17 1620  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Method of Shipment: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: 4/28/17 1505  
 Received by: \_\_\_\_\_ Date/Time: 4/29/17 0851  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Company: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Company: \_\_\_\_\_

Custody Seal No.: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 9.8°C



681-Atlanta

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-137272-1  
SDG Number: Gypsum Landfill

**Login Number: 137272**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 4.1°C, 0.0°C, 3.6°C, 5.1°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 Wansley

TestAmerica Job ID: 400-137272-1  
 SDG: Gypsum Landfill

## 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

\* 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: 400-137272-2

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR - Plant Wansley

For:

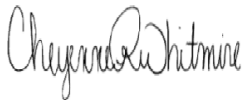
Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

5/31/2017 5:27:42 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
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Have a Question?



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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137272-1	GWA-29	Water	04/27/17 14:15	04/29/17 08:54
400-137272-2	GWA-4	Water	04/27/17 15:18	04/29/17 08:54
400-137272-3	GWA-28	Water	04/27/17 16:15	04/29/17 08:54
400-137272-4	GWC-27	Water	04/28/17 10:22	04/29/17 08:54
400-137272-5	GWA-1	Water	04/28/17 11:15	04/29/17 08:54
400-137272-6	GWA-2	Water	04/28/17 11:35	04/29/17 08:54
400-137272-7	FB-1	Water	04/28/17 12:08	04/29/17 08:54

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Lab Sample ID: 400-137272-1**

**Date Collected: 04/27/17 14:15**

**Matrix: Water**

**Date Received: 04/29/17 08:54**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0794	U	0.0694	0.0698	1.00	0.105	pCi/L	05/05/17 08:52	05/29/17 21:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/05/17 08:52	05/29/17 21:21	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.141	U	0.268	0.268	1.00	0.454	pCi/L	05/05/17 09:20	05/19/17 15:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/05/17 09:20	05/19/17 15:57	1
Y Carrier	83.4		40 - 110					05/05/17 09:20	05/19/17 15:57	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	0.220	U	0.277	0.277	5.00	0.454	pCi/L		05/31/17 14:25	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 04/27/17 15:18**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-2**  
**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.376		0.109	0.114	1.00	0.0885	pCi/L	05/05/17 08:52	05/29/17 21:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/05/17 08:52	05/29/17 21:21	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.33		0.320	0.342	1.00	0.392	pCi/L	05/05/17 09:20	05/19/17 15:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/05/17 09:20	05/19/17 15:58	1
Y Carrier	87.9		40 - 110					05/05/17 09:20	05/19/17 15:58	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	1.70		0.338	0.361	5.00	0.392	pCi/L		05/31/17 14:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-28**

**Date Collected: 04/27/17 16:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-3**

**Matrix: Water**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0361	U	0.0534	0.0535	1.00	0.0915	pCi/L	05/05/17 08:52	05/29/17 21:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/05/17 08:52	05/29/17 21:21	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.245	0.246	1.00	0.405	pCi/L	05/05/17 09:20	05/19/17 15:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/05/17 09:20	05/19/17 15:58	1
Y Carrier	86.0		40 - 110					05/05/17 09:20	05/19/17 15:58	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	0.243	U	0.251	0.252	5.00	0.405	pCi/L		05/31/17 14:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-137272-4**

**Date Collected: 04/28/17 10:22**

**Matrix: Water**

**Date Received: 04/29/17 08:54**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.291		0.109	0.112	1.00	0.115	pCi/L	05/05/17 08:52	05/29/17 23:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					05/05/17 08:52	05/29/17 23:09	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.384	U	0.299	0.301	1.00	0.475	pCi/L	05/05/17 09:20	05/19/17 15:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					05/05/17 09:20	05/19/17 15:58	1
Y Carrier	83.0		40 - 110					05/05/17 09:20	05/19/17 15:58	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.675		0.319	0.322	5.00	0.475	pCi/L		05/31/17 14:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 04/28/17 11:15**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-5**  
**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	0.0285	U	0.0502	0.0503	1.00	0.0888	pCi/L	05/05/17 08:52	05/29/17 23:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/05/17 08:52	05/29/17 23:10	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.000	U	0.266	0.266	1.00	0.470	pCi/L	05/05/17 09:20	05/19/17 16:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/05/17 09:20	05/19/17 16:31	1
Y Carrier	86.7		40 - 110					05/05/17 09:20	05/19/17 16:31	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	0.0285	U	0.271	0.271	5.00	0.470	pCi/L		05/31/17 14:25	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
 SDG: Gypsum Landfill

**Client Sample ID: GWA-2**  
**Date Collected: 04/28/17 11:35**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-6**  
**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	0.0651	U	0.0656	0.0659	1.00	0.104	pCi/L	05/05/17 08:52	05/29/17 23:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					05/05/17 08:52	05/29/17 23:11	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0529	U	0.176	0.176	1.00	0.332	pCi/L	05/05/17 09:20	05/19/17 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					05/05/17 09:20	05/19/17 16:05	1
Y Carrier	87.1		40 - 110					05/05/17 09:20	05/19/17 16:05	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	0.0122	U	0.188	0.188	5.00	0.332	pCi/L		05/31/17 14:25	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
 SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 04/28/17 12:08**  
**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-7**  
**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	0.00905	U	0.0467	0.0467	1.00	0.0920	pCi/L	05/05/17 08:52	05/29/17 23:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/05/17 08:52	05/29/17 23:11	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0329	U	0.171	0.171	1.00	0.316	pCi/L	05/05/17 09:20	05/19/17 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/05/17 09:20	05/19/17 16:05	1
Y Carrier	87.1		40 - 110					05/05/17 09:20	05/19/17 16:05	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	-0.0239	U	0.177	0.177	5.00	0.316	pCi/L		05/31/17 14:25	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 04/27/17 14:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310981	05/29/17 21:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309641	05/19/17 15:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	RTM	TAL SL

**Client Sample ID: GWA-4**

**Date Collected: 04/27/17 15:18**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310981	05/29/17 21:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309641	05/19/17 15:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	RTM	TAL SL

**Client Sample ID: GWA-28**

**Date Collected: 04/27/17 16:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310981	05/29/17 21:21	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309641	05/19/17 15:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	RTM	TAL SL

**Client Sample ID: GWC-27**

**Date Collected: 04/28/17 10:22**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310981	05/29/17 23:09	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309641	05/19/17 15:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

**Client Sample ID: GWA-1**

**Date Collected: 04/28/17 11:15**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310981	05/29/17 23:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309641	05/19/17 16:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	RTM	TAL SL

**Client Sample ID: GWA-2**

**Date Collected: 04/28/17 11:35**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310982	05/29/17 23:11	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309638	05/19/17 16:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	RTM	TAL SL

**Client Sample ID: FB-1**

**Date Collected: 04/28/17 12:08**

**Date Received: 04/29/17 08:54**

**Lab Sample ID: 400-137272-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307416	05/05/17 08:52	LDE	TAL SL
Total/NA	Analysis	9315		1	310982	05/29/17 23:11	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307424	05/05/17 09:20	LDE	TAL SL
Total/NA	Analysis	9320		1	309638	05/19/17 16:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	311374	05/31/17 14:25	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 Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 307416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total/NA	Water	PrecSep-21	
400-137272-2	GWA-4	Total/NA	Water	PrecSep-21	
400-137272-3	GWA-28	Total/NA	Water	PrecSep-21	
400-137272-4	GWC-27	Total/NA	Water	PrecSep-21	
400-137272-5	GWA-1	Total/NA	Water	PrecSep-21	
400-137272-6	GWA-2	Total/NA	Water	PrecSep-21	
400-137272-7	FB-1	Total/NA	Water	PrecSep-21	
MB 160-307416/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-307416/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137272-4 DU	GWC-27	Total/NA	Water	PrecSep-21	

### Prep Batch: 307424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-1	GWA-29	Total/NA	Water	PrecSep_0	
400-137272-2	GWA-4	Total/NA	Water	PrecSep_0	
400-137272-3	GWA-28	Total/NA	Water	PrecSep_0	
400-137272-4	GWC-27	Total/NA	Water	PrecSep_0	
400-137272-5	GWA-1	Total/NA	Water	PrecSep_0	
400-137272-6	GWA-2	Total/NA	Water	PrecSep_0	
400-137272-7	FB-1	Total/NA	Water	PrecSep_0	
MB 160-307424/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-307424/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137272-4 DU	GWC-27	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-307416/1-A**  
**Matrix: Water**  
**Analysis Batch: 310984**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 307416**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04826	U	0.0584	0.0585	1.00	0.0956	pCi/L	05/05/17 08:52	05/29/17 21:07	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	99.4		40 - 110		05/05/17 08:52	05/29/17 21:07	1			

**Lab Sample ID: LCS 160-307416/2-A**  
**Matrix: Water**  
**Analysis Batch: 310984**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 307416**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.889		1.03	1.00	0.121	pCi/L	87	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	105		40 - 110		05/05/17 08:52	05/29/17 21:07	1		

**Lab Sample ID: 400-137272-4 DU**  
**Matrix: Water**  
**Analysis Batch: 310981**

**Client Sample ID: GWC-27**  
**Prep Type: Total/NA**  
**Prep Batch: 307416**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.291		0.4991		0.130	1.00	0.0879	pCi/L	0.86	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	100		40 - 110		05/05/17 09:20	05/19/17 16:06	1			

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-307424/1-A**  
**Matrix: Water**  
**Analysis Batch: 309639**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 307424**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.05759	U	0.185	0.185	1.00	0.323	pCi/L	05/05/17 09:20	05/19/17 16:06	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	99.4		40 - 110		05/05/17 09:20	05/19/17 16:06	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	89.3		40 - 110		05/05/17 09:20	05/19/17 16:06	1			

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-2  
 SDG: Gypsum Landfill

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-307424/2-A**  
**Matrix: Water**  
**Analysis Batch: 309639**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 307424**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.4	13.22		1.42	1.00	0.325	pCi/L	98	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	89.3		40 - 110

**Lab Sample ID: 400-137272-4 DU**  
**Matrix: Water**  
**Analysis Batch: 309641**

**Client Sample ID: GWC-27**  
**Prep Type: Total/NA**  
**Prep Batch: 307424**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.384	U	0.9188		0.324	1.00	0.428	pCi/L	0.86	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	84.5		40 - 110

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-137272-4 DU**  
**Matrix: Water**  
**Analysis Batch: 311374**

**Client Sample ID: GWC-27**  
**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	0.675		1.418		0.350	5.00	0.428	pCi/L	1.11	



3355 McLemore Drive  
Perisacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 Client Contact: Joju Abraham  
 Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State: GA, Zip: 30308  
 Phone: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** T Payne TP, T. Thomas II, M. Rogers HR  
**Lab PM:** Whitmire, Cheyenne R  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Analysis Requested**  
 Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSO#:  
 Preservation Codes:  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecylhydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4-5  
 X - DI Water  
 Y - EDTA  
 Z - other (specify)  
 Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, AT=TISSUE, A=Al)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470			Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:
							I	D	D			
GWA-29	4/27/17	1415	G	W	X	X	X	X	X	3		
GWA-4	4/27/17	1518	G	W	X	X	X	X	X	3		
GWA-28	4/27/17	1615	G	W	X	X	X	X	X	3		

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:** [Signature] Date: 5/18/17 1505  
 Relinquished by: [Signature] Date/time: 4/28/17 1630  
 Relinquished by: [Signature] Date/time: 4/29/17 0854  
 Company: [Signature] Company: TA  
 Company: TA-160 Company: TA-160

**Custody Seals Intact:**  Custody Seal No.:  
 Cooler Temperature(s) °C and Other Remarks: 0.0C 5-20-17



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact:  
 Joju Abraham  
 Company:  
 Southern Company

Sampler:  
 T Payne TP, T. Thomas TT, M. Rogers HR  
 Phone:

Lab PM:  
 Whitmire, Cheyenne R  
 E-Mail:  
 cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):

COC No:

Page:

Job #:

Address:  
 241 Ralph McGill Blvd SE B10185  
 City:  
 Atlanta  
 State, Zip:  
 GA, 30308  
 Phone:  
 404-506-7239  
 Email:  
 JAbraham@southernco.com  
 Project Name:  
 Plant Wansley - Gypsum Landfill  
 Site:  
 OCR

Due Date Requested:  
 TAT Requested (days):

PO #:  
 WO #:  
 Project #:  
 SSOW #:

**Analysis Requested**

Preservation Codes:  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 Other:  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:
							D	D			
GWC-27	4/28/17	1022	G	W	X	X	X	X	4	Extra radium sample collected for lab QA/QC	
GWA-1	4/28/17	1115	G	W	X	X	X	X	3		
GWA-2	4/28/17	1135	G	W	X	X	X	X	3		
FB-1	4/28/17	1208	G	W	X	X	X	X	3		

**Possible Hazard Identification**  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

Empty Kit Relinquished by:

Date:

Method of Shipment:

Relinquished by: [Signature]  
 Date/Time: 4/28/17 1505  
 Company: [Signature]

Relinquished by: [Signature]  
 Date/Time: 4/28/17 1620  
 Company: [Signature]

Relinquished by: [Signature]  
 Date/Time: 4/28/17 1505  
 Company: [Signature]

Relinquished by: [Signature]  
 Date/Time: 4/29/17 0854  
 Company: [Signature]

Custody Seals Intact:  
 Yes  No

Cooler Temperature(s) °C and Other Remarks:  
 9.8°C



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-137272-2  
SDG Number: Gypsum Landfill

**Login Number: 137272**

**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	0.0°C, 4.1°C, 0.0°C, 3.6°C, 5.1°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 Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

## 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	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 Wansley

TestAmerica Job ID: 400-137272-2  
SDG: Gypsum Landfill

## 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: 400-137272-3

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR - Plant Wansley

For:

Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

5/17/2017 11:01:15 PM

Cheyenne Whitmire, Project Manager II

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### 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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Job ID: 400-137272-3**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-137272-3

#### HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWC-7 (400-137272-18). Elevated reporting limits (RLs) are provided.

#### Metals

Method(s) 6020: The continuing calibration blank (CCB) for analytical batch 353529 contained Selenium 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 continuing calibration verification (CCV) associated with batch 353673 recovered above the upper control limit for Lithium. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported. The following samples are impacted: GWC-16 (400-137272-29), GWC-17 (400-137272-31), GWC-13 (400-137272-33), GWC-14 (400-137272-34), GWC-18 (400-137272-35), GWC-22 (400-137272-36), FB-3 (400-137272-38), FERB-3 (400-137272-39), GWC-23 (400-137272-41), GWC-20 (400-137272-42), GWC-24 (400-137272-43), GWC-21 (400-137272-44) and (MB 400-353556/1-A ^5).



# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-26

## Lab Sample ID: 400-137272-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		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	1.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Molybdenum	0.0034	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0018		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-137272-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		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
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0057		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-34

## Lab Sample ID: 400-137272-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		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	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0051		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33

## Lab Sample ID: 400-137272-11

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	4.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0057		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00062	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0085		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00084	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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-33 (Continued)

## Lab Sample ID: 400-137272-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00018	J	0.00050	0.000085	mg/L	5		6020	Total
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-1

## Lab Sample ID: 400-137272-12

No Detections.

## Client Sample ID: DUP-1

## Lab Sample ID: 400-137272-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total
Calcium	1.6		0.25	0.13	mg/L	5		6020	Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-25

## Lab Sample ID: 400-137272-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	27		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00085	J	0.0013	0.00046	mg/L	5		6020	Total
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Recoverable
Calcium	41		0.25	0.13	mg/L	5		6020	Total
Chromium	0.015		0.0025	0.0011	mg/L	5		6020	Recoverable
Cobalt	0.036		0.0025	0.00040	mg/L	5		6020	Total
Lead	0.0021		0.0013	0.00035	mg/L	5		6020	Recoverable
Lithium	0.0062		0.0050	0.0032	mg/L	5		6020	Total
Molybdenum	0.0022	J	0.015	0.00085	mg/L	5		6020	Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-31

## Lab Sample ID: 400-137272-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0026		0.0025	0.00049	mg/L	5		6020	Total
Beryllium	0.00077	J	0.0025	0.00034	mg/L	5		6020	Recoverable
Calcium	9.8		0.25	0.13	mg/L	5		6020	Total
Chromium	0.0027		0.0025	0.0011	mg/L	5		6020	Recoverable
Lead	0.00039	J	0.0013	0.00035	mg/L	5		6020	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-31 (Continued)

## Lab Sample ID: 400-137272-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.019		0.0050	0.0032	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-5

## Lab Sample ID: 400-137272-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		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	25		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	38		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0036		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-32

## Lab Sample ID: 400-137272-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.99	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	9.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0012	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00095	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.019		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-7

## Lab Sample ID: 400-137272-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		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	76		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.088		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	59		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.012		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	420		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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-6

## Lab Sample ID: 400-137272-19

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	10		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	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0094		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0044	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-137272-20

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	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-9

## Lab Sample ID: 400-137272-21

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	18		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.089		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	18		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	0.049		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0034	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-11

## Lab Sample ID: 400-137272-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		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
Arsenic	0.0012	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.34		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	14		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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-11 (Continued)

## Lab Sample ID: 400-137272-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.013		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	180		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-2

## Lab Sample ID: 400-137272-24

No Detections.

## Client Sample ID: FERB-2

## Lab Sample ID: 400-137272-25

No Detections.

## Client Sample ID: DUP-2

## Lab Sample ID: 400-137272-26

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	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-8

## Lab Sample ID: 400-137272-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.1		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	17		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	28		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.047		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0040	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0018		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00016	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0073		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-12

## Lab Sample ID: 400-137272-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.19	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.0024		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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-12 (Continued)

## Lab Sample ID: 400-137272-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	41		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0038	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-16

## Lab Sample ID: 400-137272-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		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	6.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0022	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-137272-30

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	1.1		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	38		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0073		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0078		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-17

## Lab Sample ID: 400-137272-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-137272-32

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	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0092		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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-15 (Continued)

## Lab Sample ID: 400-137272-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.034	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	9.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00055	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0046	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-137272-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.098	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-137272-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	49		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	0.10		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.44		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.23		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.00058		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-137272-35

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
Barium	0.034		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	6.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-137272-36

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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-22 (Continued)

## Lab Sample ID: 400-137272-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	98		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-137272-37

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	0.88	J	1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.10		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0017	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0013		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0062		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-3

## Lab Sample ID: 400-137272-38

No Detections.

## Client Sample ID: FERB-3

## Lab Sample ID: 400-137272-39

No Detections.

## Client Sample ID: DUP-3

## Lab Sample ID: 400-137272-40

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	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0090		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.034	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	9.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00048	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0047	J	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-23

## Lab Sample ID: 400-137272-41

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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-23 (Continued)

## Lab Sample ID: 400-137272-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0063		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-20

## Lab Sample ID: 400-137272-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		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	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	88		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-24

## Lab Sample ID: 400-137272-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0011	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-21

## Lab Sample ID: 400-137272-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		1.0	0.89	mg/L	1		300.0	Total/NA
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00043	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137272-8	GWC-26	Water	05/01/17 12:30	05/03/17 09:07
400-137272-9	GWC-30	Water	05/01/17 12:45	05/03/17 09:07
400-137272-10	GWC-34	Water	05/01/17 15:50	05/03/17 09:07
400-137272-11	GWC-33	Water	05/01/17 16:25	05/03/17 09:07
400-137272-12	FERB-1	Water	05/01/17 14:00	05/03/17 09:07
400-137272-13	DUP-1	Water	05/01/17 00:00	05/03/17 09:07
400-137272-14	GWC-25	Water	05/02/17 08:45	05/04/17 08:51
400-137272-15	GWC-31	Water	05/02/17 09:50	05/04/17 08:51
400-137272-16	GWC-5	Water	05/02/17 10:00	05/04/17 08:51
400-137272-17	GWC-32	Water	05/02/17 10:15	05/04/17 08:51
400-137272-18	GWC-7	Water	05/02/17 10:25	05/04/17 08:51
400-137272-19	GWC-6	Water	05/02/17 11:40	05/04/17 08:51
400-137272-20	GWC-35	Water	05/02/17 11:50	05/04/17 08:51
400-137272-21	GWC-9	Water	05/02/17 14:05	05/04/17 08:51
400-137272-22	GWC-11	Water	05/02/17 14:35	05/04/17 08:51
400-137272-24	FB-2	Water	05/02/17 12:00	05/04/17 08:51
400-137272-25	FERB-2	Water	05/02/17 11:05	05/04/17 08:51
400-137272-26	DUP-2	Water	05/02/17 00:00	05/04/17 08:51
400-137272-27	GWC-8	Water	05/03/17 08:55	05/05/17 08:23
400-137272-28	GWC-12	Water	05/03/17 10:10	05/05/17 08:23
400-137272-29	GWC-16	Water	05/03/17 10:15	05/05/17 08:23
400-137272-30	GWC-10	Water	05/03/17 10:30	05/05/17 08:23
400-137272-31	GWC-17	Water	05/03/17 12:00	05/05/17 08:23
400-137272-32	GWC-15	Water	05/03/17 12:30	05/05/17 08:23
400-137272-33	GWC-13	Water	05/03/17 12:50	05/05/17 08:23
400-137272-34	GWC-14	Water	05/03/17 13:52	05/05/17 08:23
400-137272-35	GWC-18	Water	05/03/17 14:15	05/05/17 08:23
400-137272-36	GWC-22	Water	05/03/17 14:40	05/05/17 08:23
400-137272-37	GWC-19	Water	05/03/17 14:50	05/05/17 08:23
400-137272-38	FB-3	Water	05/03/17 13:55	05/05/17 08:23
400-137272-39	FERB-3	Water	05/03/17 10:50	05/05/17 08:23
400-137272-40	DUP-3	Water	05/03/17 00:00	05/05/17 08:23
400-137272-41	GWC-23	Water	05/04/17 09:55	05/05/17 08:23
400-137272-42	GWC-20	Water	05/04/17 10:05	05/05/17 08:23
400-137272-43	GWC-24	Water	05/04/17 10:40	05/05/17 08:23
400-137272-44	GWC-21	Water	05/04/17 11:12	05/05/17 08:23

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 05/01/17 12:30**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-8**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.8</b>		1.0	0.89	mg/L			05/05/17 19:12	1
Fluoride	<0.082		0.20	0.082	mg/L			05/05/17 19:12	1
Sulfate	<0.70		1.0	0.70	mg/L			05/05/17 19:12	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		05/12/17 12:02	05/12/17 17:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 17:01	5
<b>Barium</b>	<b>0.030</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 17:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 17:01	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 17:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 17:01	5
<b>Calcium</b>	<b>1.6</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 17:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 17:01	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 17:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 17:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 17:01	5
<b>Molybdenum</b>	<b>0.0034</b>	<b>J</b>	0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 17:01	5
<b>Selenium</b>	<b>0.0018</b>		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 17:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 17:01	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		05/13/17 14:10	05/15/17 11:46	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>10</b>		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-30**

**Date Collected: 05/01/17 12:45**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-9**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			05/05/17 20:20	1
Fluoride	0.092	J	0.20	0.082	mg/L			05/05/17 20:20	1
Sulfate	1.2		1.0	0.70	mg/L			05/05/17 20:20	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		05/12/17 12:02	05/12/17 17:35	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 17:35	5
Barium	0.0057		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 17:35	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 17:35	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 17:35	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 17:35	5
Calcium	3.0		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 17:35	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 17:35	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 17:35	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 17:35	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 17:35	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 17:35	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 17:35	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 17:35	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/13/17 14:10	05/15/17 11:48	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-34**  
**Date Collected: 05/01/17 15:50**  
**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-10**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			05/05/17 20:43	1
Fluoride	0.16	J	0.20	0.082	mg/L			05/05/17 20:43	1
Sulfate	1.4		1.0	0.70	mg/L			05/05/17 20:43	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		05/12/17 12:02	05/12/17 17:58	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 17:58	5
Barium	0.012		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 17:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 17:58	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 17:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 17:58	5
Calcium	3.1		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 17:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 17:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 17:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 17:58	5
Lithium	0.0051		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 17:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 17:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 17:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 17:58	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		05/13/17 14:10	05/15/17 11:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 05/01/17 16:25**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-11**

**Matrix: Water**

### 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			05/05/17 21:06	1
Fluoride	4.2		0.20	0.082	mg/L			05/05/17 21:06	1
Sulfate	25		1.0	0.70	mg/L			05/05/17 21:06	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		05/12/17 12:02	05/12/17 18:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:02	5
Barium	0.0057		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:02	5
Beryllium	0.00062	J	0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:02	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:02	5
Calcium	10		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:02	5
Cobalt	0.0085		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:02	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:02	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:02	5
Selenium	0.00084	J	0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:02	5
Thallium	0.00018	J	0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:02	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		05/13/17 14:10	05/15/17 11:51	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Date Collected: 05/01/17 14:00**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-12**

**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			05/05/17 21:29	1
Fluoride	<0.082		0.20	0.082	mg/L			05/05/17 21:29	1
Sulfate	<0.70		1.0	0.70	mg/L			05/05/17 21:29	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		05/12/17 12:02	05/12/17 18:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:07	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:07	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:07	5
Calcium	<0.13		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:07	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		05/13/17 14:10	05/15/17 11:53	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			05/05/17 14:03	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 05/01/17 00:00**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-13**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.8</b>		1.0	0.89	mg/L			05/05/17 21:52	1
Fluoride	<0.082		0.20	0.082	mg/L			05/05/17 21:52	1
Sulfate	<0.70		1.0	0.70	mg/L			05/05/17 21:52	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		05/12/17 12:02	05/12/17 18:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:11	5
<b>Barium</b>	<b>0.030</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:11	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:11	5
<b>Calcium</b>	<b>1.6</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:11	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:11	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:11	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:11	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:11	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:11	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		05/13/17 14:10	05/15/17 11:55	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>16</b>		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 05/02/17 08:45**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-14**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.5</b>		1.0	0.89	mg/L			05/05/17 22:14	1
Fluoride	<0.082		0.20	0.082	mg/L			05/05/17 22:14	1
<b>Sulfate</b>	<b>27</b>		1.0	0.70	mg/L			05/05/17 22:14	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		05/12/17 12:02	05/12/17 18:16	5
<b>Arsenic</b>	<b>0.00085</b>	<b>J</b>	0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Barium</b>	<b>0.041</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:16	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:16	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:16	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Calcium</b>	<b>41</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Chromium</b>	<b>0.015</b>		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Cobalt</b>	<b>0.036</b>		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Lead</b>	<b>0.0021</b>		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Lithium</b>	<b>0.0062</b>		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:16	5
<b>Molybdenum</b>	<b>0.0022</b>	<b>J</b>	0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:16	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:16	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:16	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		05/13/17 14:10	05/15/17 11:56	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-31**

**Date Collected: 05/02/17 09:50**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-15**

**Matrix: Water**

**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		05/12/17 12:02	05/12/17 18:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:20	5
<b>Barium</b>	<b>0.0026</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:20	5
<b>Beryllium</b>	<b>0.00077</b>	<b>J</b>	0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:20	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:20	5
<b>Calcium</b>	<b>9.8</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:20	5
<b>Chromium</b>	<b>0.0027</b>		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:20	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:20	5
<b>Lead</b>	<b>0.00039</b>	<b>J</b>	0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:20	5
<b>Lithium</b>	<b>0.019</b>		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:20	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:20	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		05/13/17 14:10	05/15/17 11:58	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 05/02/17 10:00**  
**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-16**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		1.0	0.89	mg/L			05/05/17 22:37	1
Fluoride	0.10	J	0.20	0.082	mg/L			05/05/17 22:37	1
Sulfate	25		1.0	0.70	mg/L			05/05/17 22:37	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		05/12/17 12:02	05/12/17 18:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:25	5
Barium	0.020		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:25	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:25	5
Calcium	38		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:25	5
Cobalt	0.0036		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:25	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:25	5
Lithium	0.0046	J	0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:25	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:25	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:25	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		05/13/17 14:10	05/15/17 12:00	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Date Collected: 05/02/17 10:15**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-17**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.99	J	1.0	0.89	mg/L			05/05/17 23:00	1
Fluoride	3.5		0.20	0.082	mg/L			05/05/17 23:00	1
Sulfate	9.0		1.0	0.70	mg/L			05/05/17 23:00	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		05/12/17 12:02	05/12/17 18:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:29	5
Barium	0.0025		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:29	5
Beryllium	0.0012	J	0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:29	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:29	5
Calcium	15		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:29	5
Cobalt	0.00095	J	0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:29	5
Lithium	0.019		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:29	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:29	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		05/13/17 14:10	05/15/17 12:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	76		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Date Collected: 05/02/17 10:25**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-18**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		1.0	0.89	mg/L			05/06/17 17:12	1
Fluoride	0.21		0.20	0.082	mg/L			05/06/17 17:12	1
Sulfate	76		5.0	3.5	mg/L			05/08/17 21:03	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		05/12/17 12:02	05/12/17 18:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:34	5
Barium	0.088		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:34	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:34	5
Calcium	59		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:34	5
Cobalt	0.011		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:34	5
Lithium	0.012		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:34	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		05/13/17 14:10	05/15/17 12:12	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	420		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 05/02/17 11:40**  
**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-19**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.1</b>		1.0	0.89	mg/L			05/06/17 17:35	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 17:35	1
<b>Sulfate</b>	<b>10</b>		1.0	0.70	mg/L			05/06/17 17:35	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		05/12/17 12:02	05/12/17 18:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 18:38	5
<b>Barium</b>	<b>0.043</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 18:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:38	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 18:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 18:38	5
<b>Calcium</b>	<b>12</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 18:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 18:38	5
<b>Cobalt</b>	<b>0.0094</b>		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 18:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 18:38	5
<b>Lithium</b>	<b>0.0044 J</b>		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 18:38	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 18:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 18:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 18:38	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		05/13/17 14:10	05/15/17 12:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>82</b>		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-35**

**Date Collected: 05/02/17 11:50**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-20**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.0</b>		1.0	0.89	mg/L			05/06/17 17:58	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 17:58	1
<b>Sulfate</b>	<b>2.5</b>		1.0	0.70	mg/L			05/06/17 17:58	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		05/12/17 12:02	05/12/17 19:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 19:01	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 19:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:01	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 19:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:01	5
<b>Calcium</b>	<b>2.1</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 19:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 19:01	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 19:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 19:01	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 19:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 19:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 19:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 19:01	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		05/13/17 14:10	05/15/17 12:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>4.0</b>	<b>J</b>	5.0	3.4	mg/L			05/05/17 14:03	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**  
**Date Collected: 05/02/17 14:05**  
**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-21**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>11</b>		1.0	0.89	mg/L			05/06/17 19:06	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 19:06	1
<b>Sulfate</b>	<b>18</b>		1.0	0.70	mg/L			05/06/17 19:06	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		05/12/17 12:02	05/12/17 19:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 19:05	5
<b>Barium</b>	<b>0.11</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 19:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:05	5
<b>Boron</b>	<b>0.089</b>		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 19:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:05	5
<b>Calcium</b>	<b>18</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 19:05	5
<b>Chromium</b>	<b>0.0016</b>	<b>J</b>	0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 19:05	5
<b>Cobalt</b>	<b>0.049</b>		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 19:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 19:05	5
<b>Lithium</b>	<b>0.0034</b>	<b>J</b>	0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 19:05	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 19:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 19:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 19:05	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		05/13/17 14:10	05/15/17 12:17	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>150</b>		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-11**

**Date Collected: 05/02/17 14:35**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-22**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.89	mg/L			05/06/17 18:20	1
Fluoride	0.11	J	0.20	0.082	mg/L			05/06/17 18:20	1
Sulfate	<0.70		1.0	0.70	mg/L			05/06/17 18:20	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		05/12/17 12:02	05/12/17 19:10	5
Arsenic	0.0012	J	0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 19:10	5
Barium	0.34		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 19:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:10	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 19:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:10	5
Calcium	14		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 19:10	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 19:10	5
Cobalt	0.013		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 19:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 19:10	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 19:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 19:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 19:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 19:10	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		05/13/17 14:10	05/15/17 12:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 05/02/17 12:00**  
**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-24**  
**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			05/06/17 18:43	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 18:43	1
Sulfate	<0.70		1.0	0.70	mg/L			05/06/17 18:43	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		05/12/17 12:02	05/12/17 19:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 19:14	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 19:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:14	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 19:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:14	5
Calcium	<0.13		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 19:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 19:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 19:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 19:14	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 19:14	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 19:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 19:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 19:14	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		05/13/17 14:10	05/15/17 12:21	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			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**

**Date Collected: 05/02/17 11:05**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-25**

**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			05/06/17 19:52	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 19:52	1
Sulfate	<0.70		1.0	0.70	mg/L			05/06/17 19:52	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		05/12/17 12:02	05/12/17 19:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 19:19	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 19:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:19	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 19:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:19	5
Calcium	<0.13		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 19:19	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 19:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 19:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 19:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 19:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 19:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 19:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 19:19	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		05/13/17 14:10	05/15/17 12:22	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			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Date Collected: 05/02/17 00:00**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-26**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.1</b>		1.0	0.89	mg/L			05/06/17 21:00	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 21:00	1
<b>Sulfate</b>	<b>2.6</b>		1.0	0.70	mg/L			05/06/17 21:00	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		05/12/17 12:02	05/12/17 19:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 19:23	5
<b>Barium</b>	<b>0.019</b>		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 19:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:23	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 19:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 19:23	5
<b>Calcium</b>	<b>2.1</b>		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 19:23	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 19:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 19:23	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 19:23	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 19:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 19:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 19:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 19:23	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		05/13/17 14:10	05/15/17 12:24	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>16</b>		5.0	3.4	mg/L			05/05/17 14:03	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 05/03/17 08:55**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-27**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.1</b>		1.0	0.89	mg/L			05/06/17 21:23	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 21:23	1
<b>Sulfate</b>	<b>17</b>		1.0	0.70	mg/L			05/06/17 21:23	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		05/15/17 13:35	05/15/17 20:31	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 20:31	5
<b>Barium</b>	<b>0.047</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 20:31	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 20:31	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 20:31	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 20:31	5
<b>Calcium</b>	<b>28</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 20:31	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 20:31	5
<b>Cobalt</b>	<b>0.047</b>		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 20:31	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 20:31	5
<b>Molybdenum</b>	<b>0.0040</b>	<b>J</b>	0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 20:31	5
<b>Selenium</b>	<b>0.0018</b>		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 20:31	5
<b>Thallium</b>	<b>0.00016</b>	<b>J</b>	0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 20:31	5

### Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lithium</b>	<b>0.0073</b>		0.0050	0.0032	mg/L		05/15/17 13:35	05/16/17 12:08	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		05/13/17 14:10	05/15/17 12:26	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>160</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-137272-28**

**Date Collected: 05/03/17 10:10**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		1.0	0.89	mg/L			05/06/17 21:46	1
Fluoride	0.19	J	0.20	0.082	mg/L			05/06/17 21:46	1
Sulfate	22		1.0	0.70	mg/L			05/06/17 21:46	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		05/15/17 13:35	05/15/17 20:58	5
Arsenic	0.0024		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 20:58	5
Barium	0.020		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 20:58	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 20:58	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 20:58	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 20:58	5
Calcium	41		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 20:58	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 20:58	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 20:58	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 20:58	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 20:58	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 20:58	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 20:58	5

### Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0038	J	0.0050	0.0032	mg/L		05/15/17 13:35	05/16/17 12:13	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		05/13/17 14:10	05/15/17 09:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Date Collected: 05/03/17 10:15**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-29**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			05/06/17 22:09	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 22:09	1
Sulfate	<0.70		1.0	0.70	mg/L			05/06/17 22:09	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		05/15/17 13:35	05/15/17 21:03	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:03	5
<b>Barium</b>	<b>0.017</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:03	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:03	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:03	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:03	5
<b>Calcium</b>	<b>6.9</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:03	5
<b>Chromium</b>	<b>0.0022 J</b>		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:03	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:03	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:03	5
Lithium	<0.0032 ^		0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 21:03	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:03	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:03	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:03	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		05/13/17 14:10	05/15/17 09:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>18</b>		5.0	3.4	mg/L			05/09/17 12:09	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Date Collected: 05/03/17 10:30**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-30**

**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			05/06/17 22:31	1
Fluoride	1.1		0.20	0.082	mg/L			05/06/17 22:31	1
Sulfate	38		1.0	0.70	mg/L			05/06/17 22:31	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		05/15/17 13:35	05/15/17 21:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:30	5
Barium	0.024		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:30	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:30	5
Calcium	29		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:30	5
Cobalt	0.0073		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:30	5

### Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0078		0.0050	0.0032	mg/L		05/15/17 13:35	05/16/17 12:17	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/13/17 14:10	05/15/17 09:29	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-17**

**Date Collected: 05/03/17 12:00**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-31**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.2</b>		1.0	0.89	mg/L			05/06/17 22:54	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 22:54	1
Sulfate	<0.70		1.0	0.70	mg/L			05/06/17 22:54	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		05/15/17 13:35	05/15/17 21:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:34	5
<b>Barium</b>	<b>0.016</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:34	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:34	5
<b>Calcium</b>	<b>8.2</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:34	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:34	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 21:34	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:34	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:34	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		05/13/17 14:10	05/15/17 09:30	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>28</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Date Collected: 05/03/17 12:30**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-32**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.1</b>		1.0	0.89	mg/L			05/08/17 19:54	1
Fluoride	<0.082		0.20	0.082	mg/L			05/08/17 19:54	1
<b>Sulfate</b>	<b>1.3</b>		1.0	0.70	mg/L			05/08/17 19:54	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		05/15/17 13:35	05/15/17 21:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:39	5
<b>Barium</b>	<b>0.0092</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:39	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:39	5
<b>Boron</b>	<b>0.034</b>	<b>J</b>	0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:39	5
<b>Calcium</b>	<b>9.4</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:39	5
<b>Cobalt</b>	<b>0.00055</b>	<b>J</b>	0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:39	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:39	5

**Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lithium</b>	<b>0.0046</b>	<b>J</b>	0.0050	0.0032	mg/L		05/15/17 13:35	05/16/17 12:22	5

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/13/17 14:10	05/15/17 09:32	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>84</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Date Collected: 05/03/17 12:50**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-33**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			05/08/17 21:26	1
Fluoride	0.098	J	0.20	0.082	mg/L			05/08/17 21:26	1
Sulfate	2.6		1.0	0.70	mg/L			05/08/17 21:26	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		05/15/17 13:35	05/15/17 21:43	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:43	5
Barium	0.0028		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:43	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:43	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:43	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:43	5
Calcium	4.1		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:43	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:43	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:43	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:43	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 21:43	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:43	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:43	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:43	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		05/13/17 14:10	05/15/17 09:45	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-137272-34**

**Date Collected: 05/03/17 13:52**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>49</b>		1.0	0.89	mg/L			05/08/17 21:48	1
Fluoride	<0.082		0.20	0.082	mg/L			05/08/17 21:48	1
<b>Sulfate</b>	<b>10</b>		1.0	0.70	mg/L			05/08/17 21:48	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		05/15/17 13:35	05/15/17 21:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:48	5
<b>Barium</b>	<b>0.10</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:48	5
<b>Boron</b>	<b>0.44</b>		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:48	5
<b>Calcium</b>	<b>18</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:48	5
<b>Cobalt</b>	<b>0.23</b>		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:48	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 21:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:48	5
<b>Thallium</b>	<b>0.00058</b>		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:48	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		05/13/17 14:10	05/15/17 09:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>190</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**

**Date Collected: 05/03/17 14:15**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-35**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.6</b>		1.0	0.89	mg/L			05/08/17 22:11	1
Fluoride	<0.082		0.20	0.082	mg/L			05/08/17 22:11	1
Sulfate	<0.70		1.0	0.70	mg/L			05/08/17 22:11	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		05/15/17 13:35	05/15/17 21:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:52	5
<b>Barium</b>	<b>0.034</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:52	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:52	5
<b>Calcium</b>	<b>6.8</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:52	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 21:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:52	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		05/13/17 14:10	05/15/17 09:48	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>64</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-22**  
**Date Collected: 05/03/17 14:40**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-36**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			05/08/17 23:20	1
Fluoride	<0.082		0.20	0.082	mg/L			05/08/17 23:20	1
Sulfate	<0.70		1.0	0.70	mg/L			05/08/17 23:20	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		05/15/17 13:35	05/15/17 21:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 21:57	5
<b>Barium</b>	<b>0.025</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 21:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:57	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 21:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 21:57	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 21:57	5
<b>Chromium</b>	<b>0.0018</b>	<b>J</b>	0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 21:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 21:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 21:57	5
Lithium	<0.0032	<b>^</b>	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 21:57	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 21:57	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 21:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 21:57	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		05/13/17 14:10	05/15/17 09:50	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>98</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Date Collected: 05/03/17 14:50**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-37**

**Matrix: Water**

### 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			05/08/17 23:42	1
Fluoride	<0.082		0.20	0.082	mg/L			05/08/17 23:42	1
Sulfate	0.88	J	1.0	0.70	mg/L			05/08/17 23:42	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		05/15/17 13:35	05/15/17 22:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:01	5
Barium	0.10		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:01	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:01	5
Calcium	9.9		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:01	5
Cobalt	0.0017	J	0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:01	5
Lead	0.0013		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:01	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:01	5

### Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0062		0.0050	0.0032	mg/L		05/15/17 13:35	05/16/17 12:27	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		05/13/17 14:10	05/15/17 09:52	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			05/09/17 12:09	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 05/03/17 13:55**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-38**  
**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			05/09/17 00:05	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 00:05	1
Sulfate	<0.70		1.0	0.70	mg/L			05/09/17 00:05	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		05/15/17 13:35	05/15/17 22:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:06	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:06	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:06	5
Calcium	<0.13		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:06	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 22:06	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:06	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		05/13/17 14:10	05/15/17 09:53	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			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FERB-3**  
**Date Collected: 05/03/17 10:50**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-39**  
**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			05/09/17 00:28	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 00:28	1
Sulfate	<0.70		1.0	0.70	mg/L			05/09/17 00:28	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		05/15/17 13:35	05/15/17 22:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:10	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:10	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:10	5
Calcium	<0.13		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:10	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 22:10	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:10	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		05/13/17 14:10	05/15/17 09:55	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			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Date Collected: 05/03/17 00:00**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-40**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.0</b>		1.0	0.89	mg/L			05/09/17 00:51	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 00:51	1
<b>Sulfate</b>	<b>1.2</b>		1.0	0.70	mg/L			05/09/17 00:51	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		05/15/17 13:35	05/15/17 22:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:37	5
<b>Barium</b>	<b>0.0090</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:37	5
<b>Boron</b>	<b>0.034</b>	<b>J</b>	0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:37	5
<b>Calcium</b>	<b>9.5</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:37	5
<b>Cobalt</b>	<b>0.00048</b>	<b>J</b>	0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:37	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:37	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:37	5

### Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lithium</b>	<b>0.0047</b>	<b>J</b>	0.0050	0.0032	mg/L		05/15/17 13:35	05/16/17 12:31	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		05/13/17 14:10	05/15/17 09:57	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>70</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 05/04/17 09:55**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-41**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			05/09/17 01:14	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 01:14	1
Sulfate	<0.70		1.0	0.70	mg/L			05/09/17 01:14	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		05/15/17 13:35	05/15/17 22:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:42	5
<b>Barium</b>	<b>0.0063</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:42	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:42	5
<b>Calcium</b>	<b>3.3</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:42	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:42	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 22:42	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:42	5

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/13/17 14:10	05/15/17 09:58	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>54</b>		5.0	3.4	mg/L			05/08/17 15:55	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 05/04/17 10:05**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-42**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			05/09/17 01:59	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 01:59	1
<b>Sulfate</b>	<b>1.1</b>		1.0	0.70	mg/L			05/09/17 01:59	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		05/15/17 13:35	05/15/17 22:46	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:46	5
<b>Barium</b>	<b>0.035</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:46	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:46	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:46	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:46	5
<b>Calcium</b>	<b>9.1</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:46	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:46	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:46	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:46	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 22:46	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:46	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:46	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:46	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		05/13/17 14:10	05/15/17 10:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>88</b>		5.0	3.4	mg/L			05/09/17 12:09	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Date Collected: 05/04/17 10:40**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-43**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.2</b>		1.0	0.89	mg/L			05/09/17 02:22	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 02:22	1
Sulfate	<0.70		1.0	0.70	mg/L			05/09/17 02:22	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		05/15/17 13:35	05/15/17 22:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:51	5
<b>Barium</b>	<b>0.023</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:51	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:51	5
<b>Calcium</b>	<b>1.6</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:51	5
<b>Cobalt</b>	<b>0.0011</b>	<b>J</b>	0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:51	5
Lithium	<0.0032	<b>^</b>	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 22:51	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:51	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		05/13/17 14:10	05/15/17 10:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>30</b>		5.0	3.4	mg/L			05/09/17 14:06	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**

**Date Collected: 05/04/17 11:12**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-44**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.4</b>		1.0	0.89	mg/L			05/09/17 02:45	1
Fluoride	<0.082		0.20	0.082	mg/L			05/09/17 02:45	1
Sulfate	<0.70		1.0	0.70	mg/L			05/09/17 02:45	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		05/15/17 13:35	05/15/17 22:55	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 22:55	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 22:55	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:55	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 22:55	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 22:55	5
<b>Calcium</b>	<b>3.1</b>		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 22:55	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 22:55	5
<b>Cobalt</b>	<b>0.00043</b>	<b>J</b>	0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 22:55	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 22:55	5
Lithium	<0.0032	<b>^</b>	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 22:55	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 22:55	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 22:55	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 22:55	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		05/13/17 14:10	05/15/17 10:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>22</b>		5.0	3.4	mg/L			05/09/17 14:06	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## 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.
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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

### General Chemistry

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)



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Date Collected: 05/01/17 12:30**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 19:12	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 17:01	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-30**

**Date Collected: 05/01/17 12:45**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 20:20	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 17:35	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-34**

**Date Collected: 05/01/17 15:50**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 20:43	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 17:58	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-33**

**Date Collected: 05/01/17 16:25**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-11**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 21:06	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:02	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Lab Sample ID: 400-137272-12**

**Date Collected: 05/01/17 14:00**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 21:29	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:07	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: DUP-1**

**Lab Sample ID: 400-137272-13**

**Date Collected: 05/01/17 00:00**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 21:52	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:11	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-137272-14**

**Date Collected: 05/02/17 08:45**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 22:14	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:16	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-137272-15**

**Date Collected: 05/02/17 09:50**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:20	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 11:58	JAP	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-137272-16**

**Date Collected: 05/02/17 10:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 22:37	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:25	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-137272-17**

**Date Collected: 05/02/17 10:15**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352612	05/05/17 23:00	KH1	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:29	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-137272-18**

**Date Collected: 05/02/17 10:25**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 17:12	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	352916	05/08/17 21:03	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:34	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-137272-19**

**Date Collected: 05/02/17 11:40**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 17:35	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 18:38	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:14	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-137272-19**

**Date Collected: 05/02/17 11:40**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-137272-20**

**Date Collected: 05/02/17 11:50**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 17:58	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 19:01	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-137272-21**

**Date Collected: 05/02/17 14:05**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 19:06	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 19:05	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-137272-22**

**Date Collected: 05/02/17 14:35**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 18:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 19:10	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FB-2**

**Lab Sample ID: 400-137272-24**

**Date Collected: 05/02/17 12:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 18:43	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 19:14	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: FERB-2**

**Lab Sample ID: 400-137272-25**

**Date Collected: 05/02/17 11:05**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 19:52	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 19:19	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-137272-26**

**Date Collected: 05/02/17 00:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 21:00	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353363	05/12/17 12:02	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353529	05/12/17 19:23	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 12:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352529	05/05/17 14:03	TET	TAL PEN

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-137272-27**

**Date Collected: 05/03/17 08:55**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 21:23	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 20:31	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	353834	05/16/17 12:08	DRE	TAL PEN
Total/NA	Prep	7470A			353065	05/13/17 14:10	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-137272-27**

**Date Collected: 05/03/17 08:55**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	353586	05/15/17 12:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-137272-28**

**Date Collected: 05/03/17 10:10**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 21:46	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 20:58	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	353834	05/16/17 12:13	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-137272-29**

**Date Collected: 05/03/17 10:15**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 22:09	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:03	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-137272-30**

**Date Collected: 05/03/17 10:30**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 22:31	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:30	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	353834	05/16/17 12:17	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Client Sample ID: GWC-17

Lab Sample ID: 400-137272-31

Date Collected: 05/03/17 12:00

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352616	05/06/17 22:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:34	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

## Client Sample ID: GWC-15

Lab Sample ID: 400-137272-32

Date Collected: 05/03/17 12:30

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/08/17 19:54	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:39	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	353834	05/16/17 12:22	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

## Client Sample ID: GWC-13

Lab Sample ID: 400-137272-33

Date Collected: 05/03/17 12:50

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/08/17 21:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:43	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

## Client Sample ID: GWC-14

Lab Sample ID: 400-137272-34

Date Collected: 05/03/17 13:52

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/08/17 21:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:48	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-137272-34**

**Date Collected: 05/03/17 13:52**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	353586	05/15/17 09:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-137272-35**

**Date Collected: 05/03/17 14:15**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/08/17 22:11	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:52	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-137272-36**

**Date Collected: 05/03/17 14:40**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/08/17 23:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 21:57	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-137272-37**

**Date Collected: 05/03/17 14:50**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/08/17 23:42	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:01	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	353834	05/16/17 12:27	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**

**Lab Sample ID: 400-137272-38**

**Date Collected: 05/03/17 13:55**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 00:05	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:06	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-137272-39**

**Date Collected: 05/03/17 10:50**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 00:28	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:10	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-137272-40**

**Date Collected: 05/03/17 00:00**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 00:51	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:37	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	353834	05/16/17 12:31	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 09:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-137272-41**

**Date Collected: 05/04/17 09:55**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 01:14	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:42	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-137272-41**

**Date Collected: 05/04/17 09:55**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	353586	05/15/17 09:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352754	05/08/17 15:55	RRC	TAL PEN

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-137272-42**

**Date Collected: 05/04/17 10:05**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 01:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:46	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 10:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352873	05/09/17 12:09	TET	TAL PEN

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-137272-43**

**Date Collected: 05/04/17 10:40**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 02:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:51	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 10:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352874	05/09/17 14:06	TET	TAL PEN

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-137272-44**

**Date Collected: 05/04/17 11:12**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	352916	05/09/17 02:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			353556	05/15/17 13:35	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	353673	05/15/17 22:55	DRE	TAL PEN
Total/NA	Prep	7470A			353156	05/13/17 14:10	DN1	TAL PEN
Total/NA	Analysis	7470A		1	353586	05/15/17 10:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	352874	05/09/17 14:06	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 Wansley

TestAmerica Job ID: 400-137272-3  
 SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 352612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total/NA	Water	300.0	
400-137272-9	GWC-30	Total/NA	Water	300.0	
400-137272-10	GWC-34	Total/NA	Water	300.0	
400-137272-11	GWC-33	Total/NA	Water	300.0	
400-137272-12	FERB-1	Total/NA	Water	300.0	
400-137272-13	DUP-1	Total/NA	Water	300.0	
400-137272-14	GWC-25	Total/NA	Water	300.0	
400-137272-16	GWC-5	Total/NA	Water	300.0	
400-137272-17	GWC-32	Total/NA	Water	300.0	
MB 400-352612/4	Method Blank	Total/NA	Water	300.0	
LCS 400-352612/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-352612/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-137505-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-137505-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 352616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-18	GWC-7	Total/NA	Water	300.0	
400-137272-19	GWC-6	Total/NA	Water	300.0	
400-137272-20	GWC-35	Total/NA	Water	300.0	
400-137272-21	GWC-9	Total/NA	Water	300.0	
400-137272-22	GWC-11	Total/NA	Water	300.0	
400-137272-24	FB-2	Total/NA	Water	300.0	
400-137272-25	FERB-2	Total/NA	Water	300.0	
400-137272-26	DUP-2	Total/NA	Water	300.0	
400-137272-27	GWC-8	Total/NA	Water	300.0	
400-137272-28	GWC-12	Total/NA	Water	300.0	
400-137272-29	GWC-16	Total/NA	Water	300.0	
400-137272-30	GWC-10	Total/NA	Water	300.0	
400-137272-31	GWC-17	Total/NA	Water	300.0	
MB 400-352616/4	Method Blank	Total/NA	Water	300.0	
LCS 400-352616/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-352616/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-137523-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-137523-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 352916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-18	GWC-7	Total/NA	Water	300.0	
400-137272-32	GWC-15	Total/NA	Water	300.0	
400-137272-33	GWC-13	Total/NA	Water	300.0	
400-137272-34	GWC-14	Total/NA	Water	300.0	
400-137272-35	GWC-18	Total/NA	Water	300.0	
400-137272-36	GWC-22	Total/NA	Water	300.0	
400-137272-37	GWC-19	Total/NA	Water	300.0	
400-137272-38	FB-3	Total/NA	Water	300.0	
400-137272-39	FERB-3	Total/NA	Water	300.0	
400-137272-40	DUP-3	Total/NA	Water	300.0	
400-137272-41	GWC-23	Total/NA	Water	300.0	
400-137272-42	GWC-20	Total/NA	Water	300.0	
400-137272-43	GWC-24	Total/NA	Water	300.0	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## HPLC/IC (Continued)

### Analysis Batch: 352916 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-44	GWC-21	Total/NA	Water	300.0	
MB 400-352916/14	Method Blank	Total/NA	Water	300.0	
LCS 400-352916/15	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-352916/16	Lab Control Sample Dup	Total/NA	Water	300.0	
400-137272-32 MS	GWC-15	Total/NA	Water	300.0	
400-137272-32 MSD	GWC-15	Total/NA	Water	300.0	

## Metals

### Prep Batch: 353065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total/NA	Water	7470A	
400-137272-9	GWC-30	Total/NA	Water	7470A	
400-137272-10	GWC-34	Total/NA	Water	7470A	
400-137272-11	GWC-33	Total/NA	Water	7470A	
400-137272-12	FERB-1	Total/NA	Water	7470A	
400-137272-13	DUP-1	Total/NA	Water	7470A	
400-137272-14	GWC-25	Total/NA	Water	7470A	
400-137272-15	GWC-31	Total/NA	Water	7470A	
400-137272-16	GWC-5	Total/NA	Water	7470A	
400-137272-17	GWC-32	Total/NA	Water	7470A	
400-137272-18	GWC-7	Total/NA	Water	7470A	
400-137272-19	GWC-6	Total/NA	Water	7470A	
400-137272-20	GWC-35	Total/NA	Water	7470A	
400-137272-21	GWC-9	Total/NA	Water	7470A	
400-137272-22	GWC-11	Total/NA	Water	7470A	
400-137272-24	FB-2	Total/NA	Water	7470A	
400-137272-25	FERB-2	Total/NA	Water	7470A	
400-137272-26	DUP-2	Total/NA	Water	7470A	
400-137272-27	GWC-8	Total/NA	Water	7470A	
MB 400-353065/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-353065/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-137669-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-137669-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 353156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-28	GWC-12	Total/NA	Water	7470A	
400-137272-29	GWC-16	Total/NA	Water	7470A	
400-137272-30	GWC-10	Total/NA	Water	7470A	
400-137272-31	GWC-17	Total/NA	Water	7470A	
400-137272-32	GWC-15	Total/NA	Water	7470A	
400-137272-33	GWC-13	Total/NA	Water	7470A	
400-137272-34	GWC-14	Total/NA	Water	7470A	
400-137272-35	GWC-18	Total/NA	Water	7470A	
400-137272-36	GWC-22	Total/NA	Water	7470A	
400-137272-37	GWC-19	Total/NA	Water	7470A	
400-137272-38	FB-3	Total/NA	Water	7470A	
400-137272-39	FERB-3	Total/NA	Water	7470A	
400-137272-40	DUP-3	Total/NA	Water	7470A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Metals (Continued)

### Prep Batch: 353156 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-41	GWC-23	Total/NA	Water	7470A	
400-137272-42	GWC-20	Total/NA	Water	7470A	
400-137272-43	GWC-24	Total/NA	Water	7470A	
400-137272-44	GWC-21	Total/NA	Water	7470A	
MB 400-353156/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-353156/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-137272-28 MS	GWC-12	Total/NA	Water	7470A	
400-137272-28 MSD	GWC-12	Total/NA	Water	7470A	

### Prep Batch: 353363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total Recoverable	Water	3005A	
400-137272-9	GWC-30	Total Recoverable	Water	3005A	
400-137272-10	GWC-34	Total Recoverable	Water	3005A	
400-137272-11	GWC-33	Total Recoverable	Water	3005A	
400-137272-12	FERB-1	Total Recoverable	Water	3005A	
400-137272-13	DUP-1	Total Recoverable	Water	3005A	
400-137272-14	GWC-25	Total Recoverable	Water	3005A	
400-137272-15	GWC-31	Total Recoverable	Water	3005A	
400-137272-16	GWC-5	Total Recoverable	Water	3005A	
400-137272-17	GWC-32	Total Recoverable	Water	3005A	
400-137272-18	GWC-7	Total Recoverable	Water	3005A	
400-137272-19	GWC-6	Total Recoverable	Water	3005A	
400-137272-20	GWC-35	Total Recoverable	Water	3005A	
400-137272-21	GWC-9	Total Recoverable	Water	3005A	
400-137272-22	GWC-11	Total Recoverable	Water	3005A	
400-137272-24	FB-2	Total Recoverable	Water	3005A	
400-137272-25	FERB-2	Total Recoverable	Water	3005A	
400-137272-26	DUP-2	Total Recoverable	Water	3005A	
MB 400-353363/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-353363/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-137272-8 MS	GWC-26	Total Recoverable	Water	3005A	
400-137272-8 MSD	GWC-26	Total Recoverable	Water	3005A	

### Analysis Batch: 353529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total Recoverable	Water	6020	353363
400-137272-9	GWC-30	Total Recoverable	Water	6020	353363
400-137272-10	GWC-34	Total Recoverable	Water	6020	353363
400-137272-11	GWC-33	Total Recoverable	Water	6020	353363
400-137272-12	FERB-1	Total Recoverable	Water	6020	353363
400-137272-13	DUP-1	Total Recoverable	Water	6020	353363
400-137272-14	GWC-25	Total Recoverable	Water	6020	353363
400-137272-15	GWC-31	Total Recoverable	Water	6020	353363
400-137272-16	GWC-5	Total Recoverable	Water	6020	353363
400-137272-17	GWC-32	Total Recoverable	Water	6020	353363
400-137272-18	GWC-7	Total Recoverable	Water	6020	353363
400-137272-19	GWC-6	Total Recoverable	Water	6020	353363
400-137272-20	GWC-35	Total Recoverable	Water	6020	353363
400-137272-21	GWC-9	Total Recoverable	Water	6020	353363
400-137272-22	GWC-11	Total Recoverable	Water	6020	353363

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 353529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-24	FB-2	Total Recoverable	Water	6020	353363
400-137272-25	FERB-2	Total Recoverable	Water	6020	353363
400-137272-26	DUP-2	Total Recoverable	Water	6020	353363
MB 400-353363/1-A ^5	Method Blank	Total Recoverable	Water	6020	353363
LCS 400-353363/2-A	Lab Control Sample	Total Recoverable	Water	6020	353363
400-137272-8 MS	GWC-26	Total Recoverable	Water	6020	353363
400-137272-8 MSD	GWC-26	Total Recoverable	Water	6020	353363

### Prep Batch: 353556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-27 - RA	GWC-8	Total Recoverable	Water	3005A	
400-137272-27	GWC-8	Total Recoverable	Water	3005A	
400-137272-28	GWC-12	Total Recoverable	Water	3005A	
400-137272-28 - RA	GWC-12	Total Recoverable	Water	3005A	
400-137272-29	GWC-16	Total Recoverable	Water	3005A	
400-137272-30	GWC-10	Total Recoverable	Water	3005A	
400-137272-30 - RA	GWC-10	Total Recoverable	Water	3005A	
400-137272-31	GWC-17	Total Recoverable	Water	3005A	
400-137272-32 - RA	GWC-15	Total Recoverable	Water	3005A	
400-137272-32	GWC-15	Total Recoverable	Water	3005A	
400-137272-33	GWC-13	Total Recoverable	Water	3005A	
400-137272-34	GWC-14	Total Recoverable	Water	3005A	
400-137272-35	GWC-18	Total Recoverable	Water	3005A	
400-137272-36	GWC-22	Total Recoverable	Water	3005A	
400-137272-37	GWC-19	Total Recoverable	Water	3005A	
400-137272-37 - RA	GWC-19	Total Recoverable	Water	3005A	
400-137272-38	FB-3	Total Recoverable	Water	3005A	
400-137272-39	FERB-3	Total Recoverable	Water	3005A	
400-137272-40 - RA	DUP-3	Total Recoverable	Water	3005A	
400-137272-40	DUP-3	Total Recoverable	Water	3005A	
400-137272-41	GWC-23	Total Recoverable	Water	3005A	
400-137272-42	GWC-20	Total Recoverable	Water	3005A	
400-137272-43	GWC-24	Total Recoverable	Water	3005A	
400-137272-44	GWC-21	Total Recoverable	Water	3005A	
MB 400-353556/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-353556/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-353556/2-A - RA	Lab Control Sample	Total Recoverable	Water	3005A	
400-137272-27 MS	GWC-8	Total Recoverable	Water	3005A	
400-137272-27 MSD	GWC-8	Total Recoverable	Water	3005A	

### Analysis Batch: 353586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total/NA	Water	7470A	353065
400-137272-9	GWC-30	Total/NA	Water	7470A	353065
400-137272-10	GWC-34	Total/NA	Water	7470A	353065
400-137272-11	GWC-33	Total/NA	Water	7470A	353065
400-137272-12	FERB-1	Total/NA	Water	7470A	353065
400-137272-13	DUP-1	Total/NA	Water	7470A	353065
400-137272-14	GWC-25	Total/NA	Water	7470A	353065
400-137272-15	GWC-31	Total/NA	Water	7470A	353065
400-137272-16	GWC-5	Total/NA	Water	7470A	353065

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 353586 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-17	GWC-32	Total/NA	Water	7470A	353065
400-137272-18	GWC-7	Total/NA	Water	7470A	353065
400-137272-19	GWC-6	Total/NA	Water	7470A	353065
400-137272-20	GWC-35	Total/NA	Water	7470A	353065
400-137272-21	GWC-9	Total/NA	Water	7470A	353065
400-137272-22	GWC-11	Total/NA	Water	7470A	353065
400-137272-24	FB-2	Total/NA	Water	7470A	353065
400-137272-25	FERB-2	Total/NA	Water	7470A	353065
400-137272-26	DUP-2	Total/NA	Water	7470A	353065
400-137272-27	GWC-8	Total/NA	Water	7470A	353065
400-137272-28	GWC-12	Total/NA	Water	7470A	353156
400-137272-29	GWC-16	Total/NA	Water	7470A	353156
400-137272-30	GWC-10	Total/NA	Water	7470A	353156
400-137272-31	GWC-17	Total/NA	Water	7470A	353156
400-137272-32	GWC-15	Total/NA	Water	7470A	353156
400-137272-33	GWC-13	Total/NA	Water	7470A	353156
400-137272-34	GWC-14	Total/NA	Water	7470A	353156
400-137272-35	GWC-18	Total/NA	Water	7470A	353156
400-137272-36	GWC-22	Total/NA	Water	7470A	353156
400-137272-37	GWC-19	Total/NA	Water	7470A	353156
400-137272-38	FB-3	Total/NA	Water	7470A	353156
400-137272-39	FERB-3	Total/NA	Water	7470A	353156
400-137272-40	DUP-3	Total/NA	Water	7470A	353156
400-137272-41	GWC-23	Total/NA	Water	7470A	353156
400-137272-42	GWC-20	Total/NA	Water	7470A	353156
400-137272-43	GWC-24	Total/NA	Water	7470A	353156
400-137272-44	GWC-21	Total/NA	Water	7470A	353156
MB 400-353065/14-A	Method Blank	Total/NA	Water	7470A	353065
MB 400-353156/14-A	Method Blank	Total/NA	Water	7470A	353156
LCS 400-353065/15-A	Lab Control Sample	Total/NA	Water	7470A	353065
LCS 400-353156/15-A	Lab Control Sample	Total/NA	Water	7470A	353156
400-137272-28 MS	GWC-12	Total/NA	Water	7470A	353156
400-137272-28 MSD	GWC-12	Total/NA	Water	7470A	353156
400-137669-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	353065
400-137669-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	353065

### Analysis Batch: 353673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-27	GWC-8	Total Recoverable	Water	6020	353556
400-137272-28	GWC-12	Total Recoverable	Water	6020	353556
400-137272-29	GWC-16	Total Recoverable	Water	6020	353556
400-137272-30	GWC-10	Total Recoverable	Water	6020	353556
400-137272-31	GWC-17	Total Recoverable	Water	6020	353556
400-137272-32	GWC-15	Total Recoverable	Water	6020	353556
400-137272-33	GWC-13	Total Recoverable	Water	6020	353556
400-137272-34	GWC-14	Total Recoverable	Water	6020	353556
400-137272-35	GWC-18	Total Recoverable	Water	6020	353556
400-137272-36	GWC-22	Total Recoverable	Water	6020	353556
400-137272-37	GWC-19	Total Recoverable	Water	6020	353556
400-137272-38	FB-3	Total Recoverable	Water	6020	353556
400-137272-39	FERB-3	Total Recoverable	Water	6020	353556

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 353673 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-40	DUP-3	Total Recoverable	Water	6020	353556
400-137272-41	GWC-23	Total Recoverable	Water	6020	353556
400-137272-42	GWC-20	Total Recoverable	Water	6020	353556
400-137272-43	GWC-24	Total Recoverable	Water	6020	353556
400-137272-44	GWC-21	Total Recoverable	Water	6020	353556
MB 400-353556/1-A ^5	Method Blank	Total Recoverable	Water	6020	353556
LCS 400-353556/2-A	Lab Control Sample	Total Recoverable	Water	6020	353556
400-137272-27 MS	GWC-8	Total Recoverable	Water	6020	353556
400-137272-27 MSD	GWC-8	Total Recoverable	Water	6020	353556

### Analysis Batch: 353834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-27 - RA	GWC-8	Total Recoverable	Water	6020	353556
400-137272-28 - RA	GWC-12	Total Recoverable	Water	6020	353556
400-137272-30 - RA	GWC-10	Total Recoverable	Water	6020	353556
400-137272-32 - RA	GWC-15	Total Recoverable	Water	6020	353556
400-137272-37 - RA	GWC-19	Total Recoverable	Water	6020	353556
400-137272-40 - RA	DUP-3	Total Recoverable	Water	6020	353556
LCS 400-353556/2-A - RA	Lab Control Sample	Total Recoverable	Water	6020	353556

## General Chemistry

### Analysis Batch: 352529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total/NA	Water	SM 2540C	
400-137272-9	GWC-30	Total/NA	Water	SM 2540C	
400-137272-10	GWC-34	Total/NA	Water	SM 2540C	
400-137272-11	GWC-33	Total/NA	Water	SM 2540C	
400-137272-12	FERB-1	Total/NA	Water	SM 2540C	
400-137272-13	DUP-1	Total/NA	Water	SM 2540C	
400-137272-14	GWC-25	Total/NA	Water	SM 2540C	
400-137272-16	GWC-5	Total/NA	Water	SM 2540C	
400-137272-17	GWC-32	Total/NA	Water	SM 2540C	
400-137272-18	GWC-7	Total/NA	Water	SM 2540C	
400-137272-19	GWC-6	Total/NA	Water	SM 2540C	
400-137272-20	GWC-35	Total/NA	Water	SM 2540C	
400-137272-21	GWC-9	Total/NA	Water	SM 2540C	
400-137272-22	GWC-11	Total/NA	Water	SM 2540C	
400-137272-24	FB-2	Total/NA	Water	SM 2540C	
400-137272-25	FERB-2	Total/NA	Water	SM 2540C	
400-137272-26	DUP-2	Total/NA	Water	SM 2540C	
MB 400-352529/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-352529/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137272-17 DU	GWC-32	Total/NA	Water	SM 2540C	

### Analysis Batch: 352754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-41	GWC-23	Total/NA	Water	SM 2540C	
MB 400-352754/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-352754/2	Lab Control Sample	Total/NA	Water	SM 2540C	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## General Chemistry (Continued)

### Analysis Batch: 352754 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-41 DU	GWC-23	Total/NA	Water	SM 2540C	

### Analysis Batch: 352873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-27	GWC-8	Total/NA	Water	SM 2540C	
400-137272-28	GWC-12	Total/NA	Water	SM 2540C	
400-137272-29	GWC-16	Total/NA	Water	SM 2540C	
400-137272-30	GWC-10	Total/NA	Water	SM 2540C	
400-137272-31	GWC-17	Total/NA	Water	SM 2540C	
400-137272-32	GWC-15	Total/NA	Water	SM 2540C	
400-137272-33	GWC-13	Total/NA	Water	SM 2540C	
400-137272-34	GWC-14	Total/NA	Water	SM 2540C	
400-137272-35	GWC-18	Total/NA	Water	SM 2540C	
400-137272-36	GWC-22	Total/NA	Water	SM 2540C	
400-137272-37	GWC-19	Total/NA	Water	SM 2540C	
400-137272-38	FB-3	Total/NA	Water	SM 2540C	
400-137272-39	FERB-3	Total/NA	Water	SM 2540C	
400-137272-40	DUP-3	Total/NA	Water	SM 2540C	
400-137272-42	GWC-20	Total/NA	Water	SM 2540C	
MB 400-352873/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-352873/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137272-27 DU	GWC-8	Total/NA	Water	SM 2540C	
400-137272-34 DU	GWC-14	Total/NA	Water	SM 2540C	

### Analysis Batch: 352874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-43	GWC-24	Total/NA	Water	SM 2540C	
400-137272-44	GWC-21	Total/NA	Water	SM 2540C	
MB 400-352874/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-352874/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137272-43 DU	GWC-24	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-352612/4**  
**Matrix: Water**  
**Analysis Batch: 352612**

**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			05/05/17 11:58	1
Fluoride	<0.082		0.20	0.082	mg/L			05/05/17 11:58	1
Sulfate	<0.70		1.0	0.70	mg/L			05/05/17 11:58	1

**Lab Sample ID: LCS 400-352612/5**  
**Matrix: Water**  
**Analysis Batch: 352612**

**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	9.91		mg/L		99	90 - 110
Fluoride	10.0	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-352612/6**  
**Matrix: Water**  
**Analysis Batch: 352612**

**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	9.91		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

**Lab Sample ID: 400-137505-A-3 MS**  
**Matrix: Water**  
**Analysis Batch: 352612**

**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	190		100	288		mg/L		99	80 - 120
Fluoride	<0.82		100	105		mg/L		105	80 - 120
Sulfate	1100	E	100	1190	E 4	mg/L		95	80 - 120

**Lab Sample ID: 400-137505-A-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 352612**

**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		100	288		mg/L		99	80 - 120	0	20
Fluoride	<0.82		100	105		mg/L		105	80 - 120	0	20
Sulfate	1100	E	100	1190	E 4	mg/L		97	80 - 120	0	20

**Lab Sample ID: MB 400-352616/4**  
**Matrix: Water**  
**Analysis Batch: 352616**

**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			05/06/17 11:57	1
Fluoride	<0.082		0.20	0.082	mg/L			05/06/17 11:57	1
Sulfate	<0.70		1.0	0.70	mg/L			05/06/17 11:57	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-352616/5**  
**Matrix: Water**  
**Analysis Batch: 352616**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.88		mg/L		99	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.0		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-352616/6**  
**Matrix: Water**  
**Analysis Batch: 352616**

**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	9.89		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	0	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	15

**Lab Sample ID: 400-137523-E-1 MS**  
**Matrix: Water**  
**Analysis Batch: 352616**

**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	<45		500	542		mg/L		108	80 - 120
Fluoride	<4.1		500	528		mg/L		106	80 - 120
Sulfate	540		500	1040		mg/L		99	80 - 120

**Lab Sample ID: 400-137523-E-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 352616**

**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	<45		500	542		mg/L		108	80 - 120	0	20
Fluoride	<4.1		500	527		mg/L		105	80 - 120	0	20
Sulfate	540		500	1040		mg/L		100	80 - 120	0	20

**Lab Sample ID: MB 400-352916/14**  
**Matrix: Water**  
**Analysis Batch: 352916**

**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			05/08/17 18:46	1
Fluoride	<0.082		0.20	0.082	mg/L			05/08/17 18:46	1
Sulfate	<0.70		1.0	0.70	mg/L			05/08/17 18:46	1

**Lab Sample ID: LCS 400-352916/15**  
**Matrix: Water**  
**Analysis Batch: 352916**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.79		mg/L		98	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	9.81		mg/L		98	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-352916/16**  
**Matrix: Water**  
**Analysis Batch: 352916**

**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	9.80		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.1		mg/L		101	90 - 110	0	15
Sulfate	10.0	9.78		mg/L		98	90 - 110	0	15

**Lab Sample ID: 400-137272-32 MS**  
**Matrix: Water**  
**Analysis Batch: 352916**

**Client Sample ID: GWC-15**  
**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		10.0	14.6		mg/L		95	80 - 120		
Fluoride	<0.082		10.0	9.99		mg/L		100	80 - 120		
Sulfate	1.3		10.0	11.3		mg/L		100	80 - 120		

**Lab Sample ID: 400-137272-32 MSD**  
**Matrix: Water**  
**Analysis Batch: 352916**

**Client Sample ID: GWC-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	5.1		10.0	14.6		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	9.98		mg/L		100	80 - 120	0	20
Sulfate	1.3		10.0	11.2		mg/L		100	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-353363/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 353529**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353363**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		05/12/17 12:02	05/12/17 16:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/12/17 12:02	05/12/17 16:52	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/12/17 12:02	05/12/17 16:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 16:52	5
Boron	<0.021		0.050	0.021	mg/L		05/12/17 12:02	05/12/17 16:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/12/17 12:02	05/12/17 16:52	5
Calcium	<0.13		0.25	0.13	mg/L		05/12/17 12:02	05/12/17 16:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/12/17 12:02	05/12/17 16:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/12/17 12:02	05/12/17 16:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/12/17 12:02	05/12/17 16:52	5
Lithium	<0.0032		0.0050	0.0032	mg/L		05/12/17 12:02	05/12/17 16:52	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/12/17 12:02	05/12/17 16:52	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/12/17 12:02	05/12/17 16:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/12/17 12:02	05/12/17 16:52	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 400-353363/2-A**  
**Matrix: Water**  
**Analysis Batch: 353529**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353363**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0552		mg/L		110	80 - 120
Arsenic	0.0500	0.0521		mg/L		104	80 - 120
Barium	0.0500	0.0475		mg/L		95	80 - 120
Beryllium	0.0500	0.0547		mg/L		109	80 - 120
Boron	0.100	0.109		mg/L		109	80 - 120
Cadmium	0.0500	0.0528		mg/L		106	80 - 120
Calcium	5.00	5.07		mg/L		101	80 - 120
Chromium	0.0500	0.0496		mg/L		99	80 - 120
Cobalt	0.0500	0.0499		mg/L		100	80 - 120
Lead	0.0500	0.0564		mg/L		113	80 - 120
Lithium	0.0500	0.0589		mg/L		118	80 - 120
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Selenium	0.0500	0.0518		mg/L		104	80 - 120
Thallium	0.0100	0.0113		mg/L		113	80 - 120

**Lab Sample ID: 400-137272-8 MS**  
**Matrix: Water**  
**Analysis Batch: 353529**

**Client Sample ID: GWC-26**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353363**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0588		mg/L		118	75 - 125
Arsenic	<0.00046		0.0500	0.0537		mg/L		107	75 - 125
Barium	0.030		0.0500	0.0786		mg/L		96	75 - 125
Beryllium	<0.00034		0.0500	0.0513		mg/L		103	75 - 125
Boron	<0.021		0.100	0.104		mg/L		104	75 - 125
Cadmium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125
Calcium	1.6		5.00	6.96		mg/L		108	75 - 125
Chromium	<0.0011		0.0500	0.0513		mg/L		103	75 - 125
Cobalt	<0.00040		0.0500	0.0506		mg/L		101	75 - 125
Lead	<0.00035		0.0500	0.0520		mg/L		104	75 - 125
Lithium	<0.0032		0.0500	0.0460		mg/L		92	75 - 125
Molybdenum	0.0034	J	0.100	0.108		mg/L		105	75 - 125
Selenium	0.0018		0.0500	0.0553		mg/L		107	75 - 125
Thallium	<0.000085		0.0100	0.0105		mg/L		105	75 - 125

**Lab Sample ID: 400-137272-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 353529**

**Client Sample ID: GWC-26**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353363**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0619		mg/L		124	75 - 125	5	20
Arsenic	<0.00046		0.0500	0.0594		mg/L		119	75 - 125	10	20
Barium	0.030		0.0500	0.0864		mg/L		112	75 - 125	9	20
Beryllium	<0.00034		0.0500	0.0507		mg/L		101	75 - 125	1	20
Boron	<0.021		0.100	0.102		mg/L		102	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0593		mg/L		119	75 - 125	13	20
Calcium	1.6		5.00	7.67		mg/L		122	75 - 125	10	20
Chromium	<0.0011		0.0500	0.0568		mg/L		114	75 - 125	10	20

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-137272-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 353529**

**Client Sample ID: GWC-26**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353363**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cobalt	<0.00040		0.0500	0.0564		mg/L		113	75 - 125	11	20
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125	3	20
Lithium	<0.0032		0.0500	0.0447		mg/L		89	75 - 125	3	20
Molybdenum	0.0034	J	0.100	0.113		mg/L		110	75 - 125	5	20
Selenium	0.0018		0.0500	0.0517		mg/L		100	75 - 125	7	20
Thallium	<0.000085		0.0100	0.00996		mg/L		100	75 - 125	6	20

**Lab Sample ID: MB 400-353556/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 353673**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353556**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0010		0.0025	0.0010	mg/L		05/15/17 13:35	05/15/17 20:22	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		05/15/17 13:35	05/15/17 20:22	5
Barium	<0.00049		0.0025	0.00049	mg/L		05/15/17 13:35	05/15/17 20:22	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 20:22	5
Boron	<0.021		0.050	0.021	mg/L		05/15/17 13:35	05/15/17 20:22	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		05/15/17 13:35	05/15/17 20:22	5
Calcium	<0.13		0.25	0.13	mg/L		05/15/17 13:35	05/15/17 20:22	5
Chromium	<0.0011		0.0025	0.0011	mg/L		05/15/17 13:35	05/15/17 20:22	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		05/15/17 13:35	05/15/17 20:22	5
Lead	<0.00035		0.0013	0.00035	mg/L		05/15/17 13:35	05/15/17 20:22	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		05/15/17 13:35	05/15/17 20:22	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		05/15/17 13:35	05/15/17 20:22	5
Selenium	<0.00024		0.0013	0.00024	mg/L		05/15/17 13:35	05/15/17 20:22	5
Thallium	<0.000085		0.00050	0.000085	mg/L		05/15/17 13:35	05/15/17 20:22	5

**Lab Sample ID: LCS 400-353556/2-A**  
**Matrix: Water**  
**Analysis Batch: 353673**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353556**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Antimony	0.0500	0.0596		mg/L		119	80 - 120
Arsenic	0.0500	0.0525		mg/L		105	80 - 120
Barium	0.0500	0.0522		mg/L		104	80 - 120
Beryllium	0.0500	0.0534		mg/L		107	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Cadmium	0.0500	0.0543		mg/L		109	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120
Chromium	0.0500	0.0490		mg/L		98	80 - 120
Cobalt	0.0500	0.0518		mg/L		104	80 - 120
Lead	0.0500	0.0520		mg/L		104	80 - 120
Molybdenum	0.100	0.108		mg/L		108	80 - 120
Selenium	0.0500	0.0549		mg/L		110	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-137272-27 MS**

**Matrix: Water**

**Analysis Batch: 353673**

**Client Sample ID: GWC-8**

**Prep Type: Total Recoverable**

**Prep Batch: 353556**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	
	Result			Result					Limits	Limits
Antimony	<0.0010		0.0500	0.0617		mg/L		123	75 - 125	
Arsenic	<0.00046		0.0500	0.0533		mg/L		107	75 - 125	
Barium	0.047		0.0500	0.0988		mg/L		103	75 - 125	
Beryllium	<0.00034		0.0500	0.0535		mg/L		107	75 - 125	
Boron	<0.021		0.100	0.0995		mg/L		99	75 - 125	
Cadmium	<0.00034		0.0500	0.0539		mg/L		108	75 - 125	
Calcium	28		5.00	33.6	4	mg/L		109	75 - 125	
Chromium	<0.0011		0.0500	0.0491		mg/L		98	75 - 125	
Cobalt	0.047		0.0500	0.0980		mg/L		102	75 - 125	
Lead	<0.00035		0.0500	0.0522		mg/L		104	75 - 125	
Lithium	0.0096	^	0.0500	0.0571	^	mg/L		95	75 - 125	
Molybdenum	0.0040	J	0.100	0.111		mg/L		107	75 - 125	
Selenium	0.0018		0.0500	0.0560		mg/L		109	75 - 125	
Thallium	0.00016	J	0.0100	0.0107		mg/L		106	75 - 125	

**Lab Sample ID: 400-137272-27 MSD**

**Matrix: Water**

**Analysis Batch: 353673**

**Client Sample ID: GWC-8**

**Prep Type: Total Recoverable**

**Prep Batch: 353556**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
	Result			Result					Limits	RPD	Limit	Limit
Antimony	<0.0010		0.0500	0.0607		mg/L		121	75 - 125	2	20	
Arsenic	<0.00046		0.0500	0.0531		mg/L		106	75 - 125	0	20	
Barium	0.047		0.0500	0.101		mg/L		107	75 - 125	2	20	
Beryllium	<0.00034		0.0500	0.0550		mg/L		110	75 - 125	3	20	
Boron	<0.021		0.100	0.0936		mg/L		94	75 - 125	6	20	
Cadmium	<0.00034		0.0500	0.0542		mg/L		108	75 - 125	1	20	
Calcium	28		5.00	33.2	4	mg/L		101	75 - 125	1	20	
Chromium	<0.0011		0.0500	0.0499		mg/L		100	75 - 125	2	20	
Cobalt	0.047		0.0500	0.0984		mg/L		103	75 - 125	0	20	
Lead	<0.00035		0.0500	0.0524		mg/L		105	75 - 125	0	20	
Lithium	0.0096	^	0.0500	0.0569	^	mg/L		95	75 - 125	0	20	
Molybdenum	0.0040	J	0.100	0.110		mg/L		106	75 - 125	1	20	
Selenium	0.0018		0.0500	0.0546		mg/L		106	75 - 125	3	20	
Thallium	0.00016	J	0.0100	0.0106		mg/L		105	75 - 125	1	20	

## Method: 6020 - Metals (ICP/MS) - RA

**Lab Sample ID: LCS 400-353556/2-A**

**Matrix: Water**

**Analysis Batch: 353834**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 353556**

Analyte	Spike Added	LCS	LCS Qualifier	Unit	D	%Rec	%Rec.	
		Result					Limits	Limits
Antimony - RA	0.0500	0.0552		mg/L		110	80 - 120	
Arsenic - RA	0.0500	0.0524		mg/L		105	80 - 120	
Barium - RA	0.0500	0.0481		mg/L		96	80 - 120	
Beryllium - RA	0.0500	0.0503		mg/L		101	80 - 120	
Boron - RA	0.100	0.0961		mg/L		96	80 - 120	
Cadmium - RA	0.0500	0.0524		mg/L		105	80 - 120	

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) - RA (Continued)

**Lab Sample ID: LCS 400-353556/2-A**  
**Matrix: Water**  
**Analysis Batch: 353834**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 353556**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium - RA	5.00	5.16		mg/L		103	80 - 120
Chromium - RA	0.0500	0.0488		mg/L		98	80 - 120
Cobalt - RA	0.0500	0.0488		mg/L		98	80 - 120
Lead - RA	0.0500	0.0496		mg/L		99	80 - 120
Lithium - RA	0.0500	0.0527		mg/L		105	80 - 120
Molybdenum - RA	0.100	0.0999		mg/L		100	80 - 120
Selenium - RA	0.0500	0.0511		mg/L		102	80 - 120
Thallium - RA	0.0100	0.0102		mg/L		102	80 - 120

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-353065/14-A**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 353065**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/13/17 14:10	05/15/17 10:28	1

**Lab Sample ID: LCS 400-353065/15-A**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 353065**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000976		mg/L		97	80 - 120

**Lab Sample ID: 400-137669-A-3-B MS**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 353065**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00179		mg/L		89	80 - 120

**Lab Sample ID: 400-137669-A-3-C MSD**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 353065**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00186		mg/L		92	80 - 120	4	20

**Lab Sample ID: MB 400-353156/14-A**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 353156**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		05/13/17 14:10	05/15/17 09:17	1

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 400-353156/15-A**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 353156**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000982		mg/L		98	80 - 120

**Lab Sample ID: 400-137272-28 MS**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: GWC-12**  
**Prep Type: Total/NA**  
**Prep Batch: 353156**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00200		mg/L		99	80 - 120

**Lab Sample ID: 400-137272-28 MSD**  
**Matrix: Water**  
**Analysis Batch: 353586**

**Client Sample ID: GWC-12**  
**Prep Type: Total/NA**  
**Prep Batch: 353156**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00196		mg/L		97	80 - 120	2	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-352529/1**  
**Matrix: Water**  
**Analysis Batch: 352529**

**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			05/05/17 14:03	1

**Lab Sample ID: LCS 400-352529/2**  
**Matrix: Water**  
**Analysis Batch: 352529**

**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	264		mg/L		90	78 - 122

**Lab Sample ID: 400-137272-17 DU**  
**Matrix: Water**  
**Analysis Batch: 352529**

**Client Sample ID: GWC-32**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	76		76.0		mg/L		0	5

**Lab Sample ID: MB 400-352754/1**  
**Matrix: Water**  
**Analysis Batch: 352754**

**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			05/08/17 15:55	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
SDG: Gypsum Landfill

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 400-352754/2**  
**Matrix: Water**  
**Analysis Batch: 352754**

**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	278		mg/L		95	78 - 122

**Lab Sample ID: 400-137272-41 DU**  
**Matrix: Water**  
**Analysis Batch: 352754**

**Client Sample ID: GWC-23**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	54		54.0		mg/L		0	5

**Lab Sample ID: MB 400-352873/1**  
**Matrix: Water**  
**Analysis Batch: 352873**

**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			05/09/17 12:09	1

**Lab Sample ID: LCS 400-352873/2**  
**Matrix: Water**  
**Analysis Batch: 352873**

**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: 400-137272-27 DU**  
**Matrix: Water**  
**Analysis Batch: 352873**

**Client Sample ID: GWC-8**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		162		mg/L		0	5

**Lab Sample ID: 400-137272-34 DU**  
**Matrix: Water**  
**Analysis Batch: 352873**

**Client Sample ID: GWC-14**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	190		190		mg/L		0	5

**Lab Sample ID: MB 400-352874/1**  
**Matrix: Water**  
**Analysis Batch: 352874**

**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			05/09/17 14:06	1

**Lab Sample ID: LCS 400-352874/2**  
**Matrix: Water**  
**Analysis Batch: 352874**

**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	308		mg/L		105	78 - 122

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-3  
 SDG: Gypsum Landfill

**Lab Sample ID: 400-137272-43 DU**  
**Matrix: Water**  
**Analysis Batch: 352874**

**Client Sample ID: GWC-24**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	30		30.0		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**

Client Contact:  
Joju Abraham  
Company:  
Southern Company

Sampler:  
T Payne TPC Hurdle CH  
Phone:

Lab PM:  
Whitmore, Cheyenne R  
E-Mail:  
cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s):

COC No:

Page:

Job #:  
400-137272

**Analysis Requested**

Address: 241 Ralph McGill Blvd SE B10185  
City: Atlanta  
State, Zip: GA, 30308  
Phone: 404-506-7239  
E-mail: JAbraham@southernco.com  
Project Name: Plant Wansley - Gypsum Landfill  
Site: CCR

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Project #:

SSOW#:

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 - AsH2O2
- P - Na2O4S
- Q - Na2SO3
- R - Na2SO4
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - ph 4.5
- Z - other (specify)



**Sample Identification**

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C : Cl.F.S04 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:
GWC-26	5/1/17	1230	G	W	X	X	X	X	X	3	
GWC-30	5/1/17	1245	G	W	X	X	X	X	X	3	
GWC-34	5/1/17	1550	G	W	X	X	X	X	X	3	
GWC-33	5/1/17	1625	G	W	X	X	X	X	X	2	
FERB-1	5/1/17	1400	G	W	X	X	X	X	X	3	
DUP-1	5/1/17	-	G	W	X	X	X	X	X	3	

**Possible Hazard Identification**

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Relinquished by: [Signature]

Date: 5/2/17

Time: 1245

Company: [Signature]

Method of Shipment:

Date/Time: 5/2/17 1045

Company: [Signature]

Relinquished by: [Signature]

Date/Time: 5/2/17 1600

Company: [Signature]

Company: [Signature]

Date/Time: 5/2/17 0907

Company: [Signature]

Company: [Signature]

Custody Seal No.: 416 J.A.R

Custody Seals Intact:  Yes  No

Cooler Temperature(s) °C and Other Remarks:

Company: [Signature]

Company: [Signature]



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact:  
 Jolu 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

Lab PM:  
 Whitmire, Cheyenne R.  
 E-Mail:  
 cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):

COC No:  
 Page:  
 Job # 400-137272

**Analysis Requested**

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:  
 Site:  
 Plant Wansley - Gypsum Landfill  
 CCR

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 - AshaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2SO4  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4.5  
 Z - other (specify)

Sample Identification	Sample Date	Sample Time (C=Comp, G=grab)	Sample Type (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)			Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470			Radium 226 & 228 - SW-846 9315 & 9320			Total Number of containers	Special Instructions/Note:
						TSS - SM 2540C	Cl <sup>-</sup> /SO4 <sup>-</sup>	EPA 300	I	D	D	I	D	D		
GWC-25	5/2/17	0845	G	W					X	X	X			3		
GWC-31	5/2/17	0950	G	W					X	X	X			1	Metals only	
GWC-5	5/2/17	1000	G	W					X	X	X			3		
GWC-32	5/2/17	1015	G	W					X	X	X			3		
GWC-7	5/2/17	1025	G	W					X	X	X			3		
GWC-6	5/2/17	1140	G	W					X	X	X			4	Extra radium sample collected for lab QA/QC	
GWC-35	5/2/17	1150	G	W					X	X	X			3		
GWC-9	5/2/17	1405	G	W					X	X	X			3		
GWC-11	5/2/17	1435	G	W					X	X	X			3		
GWC-33	5/2/17	1440	G	W					X	X	X			1	Radium only	
FB-2	5/2/17	1200	G	W					X	X	X			3		
FERB-2	5/2/17	1105	G	W					X	X	X			3		
DUP-2	5/2/17	--	G	W					X	X	X			3		

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: 5/17/17 12:55 Company: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date/Time: 5/3/17 1600 Company: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 0.0°C FAJ



TestAmerica Pensacola  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

681-Atlanta

### Chain of Custody Record

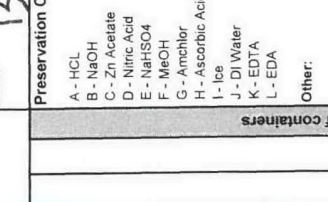
TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

Sampler: T Payne, TP T. Thomas TTC, Hurdle CHM, Rogers MR  
Lab PM: Whitmire, Cheyenne R  
Client Contact: Joju Abraham  
Phone: cheyenne.whitmire@testamericainc.com  
E-Mail: cheyenne.whitmire@testamericainc.com

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: Plant Wansley - Gypsum Landfill  
Site: CCR

Due Date Requested:  
TAT Requested (days):  
PO #:  
WO #:  
Project #:  
SSOW#:

Carrier Tracking No(s):  
COC No:  
Page:  
Job #: 137778  
Preservation Codes:  
A - HCL  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - MeOH  
G - Amchlor  
H - Ascorbic Acid  
I - Ice  
J - DI Water  
K - EDTA  
L - EDA  
M - Hexane  
N - None  
O - AsNaO2  
P - Na2O4S  
Q - Na2SO3  
R - Na2S2O3  
S - H2SO4  
T - TSP Dodecahydrate  
U - Acetone  
V - MCAA  
W - ph 4-5  
Z - other (specify)  
Other:



Sample Identification	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)		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9315 & 9320		Total Number of Containers	Special Instructions/Note:
					Sample Date	Sample Time	Preservation Code	I	D	D	D	D		
GWC-8	5/3/17	0855	G	W	X	X	X	X	X	X	X	3		
GWC-12	5/3/17	1010	G	W	X	X	X	X	X	X	X	3		
GWC-16	5/3/17	1015	G	W	X	X	X	X	X	X	X	3		
GWC-10	5/3/17	1030	G	W	X	X	X	X	X	X	X	3		
GWC-17	5/3/17	1200	G	W	X	X	X	X	X	X	X	4	Extra radium sample collected for lab QA/QC	
GWC-15	5/3/17	1230	G	W	X	X	X	X	X	X	X	3		
GWC-13	5/3/17	1250	G	W	X	X	X	X	X	X	X	3		
GWC-14	5/3/17	1352	G	W	X	X	X	X	X	X	X	3		
GWC-18	5/3/17	1415	G	W	X	X	X	X	X	X	X	3		
GWC-22	5/3/17	1440	G	W	X	X	X	X	X	X	X	3		
GWC-19	5/3/17	1450	G	W	X	X	X	X	X	X	X	3		
FB-3	5/3/17	1355	G	W	X	X	X	X	X	X	X	3		
FERB-3	5/3/17	1050	G	W	X	X	X	X	X	X	X	3		
DUP-3	5/3/17	-	G	W	X	X	X	X	X	X	X	3		

Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

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: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 5/4/17 7:45 AM Company: ECR  
 Relinquished by: \_\_\_\_\_ Date/Time: 5/4/17 12:00 Company: ECR  
 Relinquished by: \_\_\_\_\_ Date/Time: 5/4/17 1:30 Company: RA  
 Relinquished by: \_\_\_\_\_ Date/Time: 5/3/17 04:33 Company: \_\_\_\_\_

Custody Seals Intact: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: 3.6, 5.1, 6.3, 7.2

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# 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Lab PM: Whitmire, Chyenne R  
 E-Mail: chyenenne.whitmire@testamericainc.com  
 Carrier Tracking No(s):  
 Job #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		TDS - SM 2540C: Cl,F,S04 - EPA 300		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9315 & 9320		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C: Cl,F,S04 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers						
GWC-23	5/4/17	0955	G	W	X	X	X	X	X	X	X	X	3			
GWC-20	5/4/17	1005	G	W	X	X	X	X	X	X	X	X	3			
GWC-24	5/4/17	1040	G	W	X	X	X	X	X	X	X	X	3			
GWC-21	5/4/17	1112	G	W	X	X	X	X	X	X	X	X	3			

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:** *[Signature]* Date/Time: 5/4/17 2000 Company: epm  
**Relinquished by:** *[Signature]* Date/Time: 5/4/17 1700 Company: epm  
**Relinquished by:** *[Signature]* Date/Time: 5/4/17 1530 Company: 7A  
**Relinquished by:** *[Signature]* Date/Time: 5-5-15 0823 Company:

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-137272-3

SDG Number: Gypsum Landfill

**Login Number: 137272**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 4.1°C, 0.0°C, 3.6°C, 5.1°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 Wansley

TestAmerica Job ID: 400-137272-3  
 SDG: Gypsum Landfill

## 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

\* 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: 400-137272-4

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR - Plant Wansley

For:

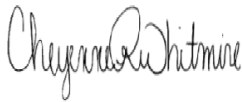
Southern Company

Southern Accounts Payable-SCS

PO BOX 830749

Birmingham, Alabama 35283

Attn: Accounts Payable



Authorized for release by:

6/8/2017 6:00:19 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Job ID: 400-137272-4**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-137272-4

#### RAD

Method(s) 9315: Radium-226 Prep Batch 160-308387: The following sample has a low barium carrier recovery (38.6%): GWC-5 (400-137272-16). Matrix interference is suspected as the QC samples associated with the batch have acceptable carrier and spike recoveries demonstrating acceptable sample preparation and instrument performance.

Method(s) 9320: Radium-228 Prep Batch 160-308395: The following sample did not meet the radium-228 detection goal due to the low carrier recovery (38.6%): GWC-5 (400-137272-16) . Matrix interference is suspected as the QC samples associated with the batch have acceptable carrier and spike recoveries demonstrating acceptable sample preparation and instrument performance.

Method(s) PrecSep\_0: Radium-228 Prep Batch 160-308395: The barium carrier recovery is outside the lower control limit (40%) for the following sample: GWC-5 (400-137272-16). There was physical evidence of matrix interference apparent during the initial preparation of the sample. During the out of ingrowth process, the pellet was noted as small. The sample was pHed to ensure proper pH range for precipitation. 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 160-308387: The barium carrier recovery is outside the lower control limit (40%) for the following sample: GWC-5 (400-137272-16). There was physical evidence of matrix interference apparent during the initial preparation of the sample. During the out of ingrowth process, the pellet was noted as small. The sample was pHed to ensure proper pH range for precipitation. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.



# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137272-8	GWC-26	Water	05/01/17 12:30	05/03/17 09:07
400-137272-9	GWC-30	Water	05/01/17 12:45	05/03/17 09:07
400-137272-10	GWC-34	Water	05/01/17 15:50	05/03/17 09:07
400-137272-12	FERB-1	Water	05/01/17 14:00	05/03/17 09:07
400-137272-13	DUP-1	Water	05/01/17 00:00	05/03/17 09:07
400-137272-14	GWC-25	Water	05/02/17 08:45	05/04/17 08:51
400-137272-16	GWC-5	Water	05/02/17 10:00	05/04/17 08:51
400-137272-17	GWC-32	Water	05/02/17 10:15	05/04/17 08:51
400-137272-18	GWC-7	Water	05/02/17 10:25	05/04/17 08:51
400-137272-19	GWC-6	Water	05/02/17 11:40	05/04/17 08:51
400-137272-20	GWC-35	Water	05/02/17 11:50	05/04/17 08:51
400-137272-21	GWC-9	Water	05/02/17 14:05	05/04/17 08:51
400-137272-22	GWC-11	Water	05/02/17 14:35	05/04/17 08:51
400-137272-23	GWC-33	Water	05/02/17 14:40	05/04/17 08:51
400-137272-24	FB-2	Water	05/02/17 12:00	05/04/17 08:51
400-137272-25	FERB-2	Water	05/02/17 11:05	05/04/17 08:51
400-137272-26	DUP-2	Water	05/02/17 00:00	05/04/17 08:51
400-137272-27	GWC-8	Water	05/03/17 08:55	05/05/17 08:23
400-137272-28	GWC-12	Water	05/03/17 10:10	05/05/17 08:23
400-137272-29	GWC-16	Water	05/03/17 10:15	05/05/17 08:23
400-137272-30	GWC-10	Water	05/03/17 10:30	05/05/17 08:23
400-137272-31	GWC-17	Water	05/03/17 12:00	05/05/17 08:23
400-137272-32	GWC-15	Water	05/03/17 12:30	05/05/17 08:23
400-137272-33	GWC-13	Water	05/03/17 12:50	05/05/17 08:23
400-137272-34	GWC-14	Water	05/03/17 13:52	05/05/17 08:23
400-137272-35	GWC-18	Water	05/03/17 14:15	05/05/17 08:23
400-137272-36	GWC-22	Water	05/03/17 14:40	05/05/17 08:23
400-137272-37	GWC-19	Water	05/03/17 14:50	05/05/17 08:23
400-137272-38	FB-3	Water	05/03/17 13:55	05/05/17 08:23
400-137272-39	FERB-3	Water	05/03/17 10:50	05/05/17 08:23
400-137272-40	DUP-3	Water	05/03/17 00:00	05/05/17 08:23
400-137272-41	GWC-23	Water	05/04/17 09:55	05/05/17 08:23
400-137272-42	GWC-20	Water	05/04/17 10:05	05/05/17 08:23
400-137272-43	GWC-24	Water	05/04/17 10:40	05/05/17 08:23
400-137272-44	GWC-21	Water	05/04/17 11:12	05/05/17 08:23

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-137272-8**

**Date Collected: 05/01/17 12:30**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0320	U	0.0748	0.0749	1.00	0.140	pCi/L	05/12/17 09:05	06/05/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	52.8		40 - 110					05/12/17 09:05	06/05/17 05:50	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.101	U	0.415	0.415	1.00	0.719	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	52.8		40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	94.2		40 - 110					05/12/17 09:24	05/26/17 14:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.133	U	0.422	0.422	5.00	0.719	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-137272-9**

**Date Collected: 05/01/17 12:45**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

**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	0.0976	0.0977	1.00	0.177	pCi/L	05/12/17 09:05	06/05/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	45.7		40 - 110					05/12/17 09:05	06/05/17 05:50	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.399	U	0.384	0.385	1.00	0.619	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	45.7		40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	94.2		40 - 110					05/12/17 09:24	05/26/17 14:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.447	U	0.396	0.398	5.00	0.619	pCi/L		06/06/17 15:48	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-137272-10**

**Date Collected: 05/01/17 15:50**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0212	U	0.0445	0.0445	1.00	0.103	pCi/L	05/12/17 09:05	06/05/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					05/12/17 09:05	06/05/17 05:55	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0370	U	0.207	0.207	1.00	0.364	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	87.1		40 - 110					05/12/17 09:24	05/26/17 14:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0158	U	0.212	0.212	5.00	0.364	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Date Collected: 05/01/17 14:00**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-12**

**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	0.0524	U	0.0473	0.0476	1.00	0.0676	pCi/L	05/12/17 09:05	06/05/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/12/17 09:05	06/05/17 05:55	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.292	U	0.218	0.219	1.00	0.341	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	85.6		40 - 110					05/12/17 09:24	05/26/17 14:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.344</b>		0.223	0.224	5.00	0.341	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 05/01/17 00:00**

**Date Received: 05/03/17 09:07**

**Lab Sample ID: 400-137272-13**

**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	0.0331	U	0.0568	0.0568	1.00	0.101	pCi/L	05/12/17 09:05	06/05/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.0		40 - 110					05/12/17 09:05	06/05/17 05:55	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0850	U	0.268	0.268	1.00	0.467	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.0		40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	86.7		40 - 110					05/12/17 09:24	05/26/17 14:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.118	U	0.274	0.274	5.00	0.467	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-25**

**Date Collected: 05/02/17 08:45**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-14**

**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0361	U	0.0422	0.0423	1.00	0.0676	pCi/L	05/12/17 09:05	06/05/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					05/12/17 09:05	06/05/17 05:55	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.163	U	0.194	0.195	1.00	0.320	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	89.0		40 - 110					05/12/17 09:24	05/26/17 14:19	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.199	U	0.199	0.199	5.00	0.320	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-5**

**Date Collected: 05/02/17 10:00**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-16**

**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	-0.0586	U	0.0876	0.0878	1.00	0.221	pCi/L	05/12/17 09:05	06/05/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	38.6	X	40 - 110					05/12/17 09:05	06/05/17 05:55	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.420	U G	0.670	0.672	1.00	1.12	pCi/L	05/12/17 09:24	05/26/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	38.6	X	40 - 110					05/12/17 09:24	05/26/17 14:19	1
Y Carrier	88.2		40 - 110					05/12/17 09:24	05/26/17 14:19	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.362	U	0.676	0.677	5.00	1.12	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-32**

**Date Collected: 05/02/17 10:15**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-17**

**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	0.813		0.162	0.178	1.00	0.0802	pCi/L	05/12/17 09:05	06/05/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					05/12/17 09:05	06/05/17 05:55	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.633		0.287	0.293	1.00	0.418	pCi/L	05/12/17 09:24	05/26/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					05/12/17 09:24	05/26/17 14:20	1
Y Carrier	91.6		40 - 110					05/12/17 09:24	05/26/17 14:20	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.45		0.330	0.343	5.00	0.418	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Date Collected: 05/02/17 10:25**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-18**

**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	0.131		0.0669	0.0679	1.00	0.0685	pCi/L	05/12/17 09:05	06/05/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/12/17 09:05	06/05/17 05:56	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.140	U	0.232	0.233	1.00	0.392	pCi/L	05/12/17 09:24	05/26/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/12/17 09:24	05/26/17 14:20	1
Y Carrier	89.7		40 - 110					05/12/17 09:24	05/26/17 14:20	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.271	U	0.242	0.243	5.00	0.392	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-6**  
**Date Collected: 05/02/17 11:40**  
**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-19**  
**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	0.0473	U	0.0472	0.0474	1.00	0.0688	pCi/L	05/12/17 09:05	06/05/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					05/12/17 09:05	06/05/17 05:56	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.354	U	0.256	0.258	1.00	0.401	pCi/L	05/12/17 09:24	05/26/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					05/12/17 09:24	05/26/17 14:20	1
Y Carrier	91.2		40 - 110					05/12/17 09:24	05/26/17 14:20	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.401		0.261	0.263	5.00	0.401	pCi/L		06/06/17 15:48	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-137272-20**

**Date Collected: 05/02/17 11:50**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0207	U	0.0389	0.0389	1.00	0.0713	pCi/L	05/12/17 09:05	06/05/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					05/12/17 09:05	06/05/17 05:56	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.102	U	0.233	0.233	1.00	0.398	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	92.0		40 - 110					05/12/17 09:24	05/26/17 14:21	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	0.123	U	0.236	0.236	5.00	0.398	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-9**

**Date Collected: 05/02/17 14:05**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-21**

**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		0.0707	0.0717	1.00	0.0735	pCi/L	05/12/17 09:05	06/05/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					05/12/17 09:05	06/05/17 05:56	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.118	U	0.224	0.225	1.00	0.382	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	88.2		40 - 110					05/12/17 09:24	05/26/17 14:21	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	0.235	0.236	5.00	0.382	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-137272-22**

**Date Collected: 05/02/17 14:35**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.468		0.127	0.134	1.00	0.115	pCi/L	05/12/17 09:05	06/05/17 05:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					05/12/17 09:05	06/05/17 05:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.750		0.273	0.282	1.00	0.372	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	87.9		40 - 110					05/12/17 09:24	05/26/17 14:21	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	1.22		0.302	0.312	5.00	0.372	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 05/02/17 14:40**

**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-23**

**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	0.248		0.0886	0.0913	1.00	0.0863	pCi/L	05/12/17 09:05	06/05/17 05:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/12/17 09:05	06/05/17 05:52	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0341	U	0.191	0.191	1.00	0.336	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	91.6		40 - 110					05/12/17 09:24	05/26/17 14:21	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	0.282	U	0.210	0.212	5.00	0.336	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: FB-2**  
**Date Collected: 05/02/17 12:00**  
**Date Received: 05/04/17 08:51**

**Lab Sample ID: 400-137272-24**  
**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	-0.0143	U	0.0476	0.0476	1.00	0.104	pCi/L	05/12/17 09:05	06/05/17 05:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/12/17 09:05	06/05/17 05:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.242	U	0.206	0.207	1.00	0.327	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	88.6		40 - 110					05/12/17 09:24	05/26/17 14:21	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	0.228	U	0.211	0.212	5.00	0.327	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: FERB-2**

**Lab Sample ID: 400-137272-25**

**Date Collected: 05/02/17 11:05**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0417	U	0.0451	0.0452	1.00	0.114	pCi/L	05/12/17 09:05	06/05/17 05:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/12/17 09:05	06/05/17 05:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.103	U	0.195	0.195	1.00	0.333	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	86.4		40 - 110					05/12/17 09:24	05/26/17 14:21	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	0.0613	U	0.200	0.200	5.00	0.333	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-137272-26**

**Date Collected: 05/02/17 00:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0463	U	0.0587	0.0588	1.00	0.0973	pCi/L	05/12/17 09:05	06/05/17 05:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/12/17 09:05	06/05/17 05:52	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.304	U	0.218	0.220	1.00	0.340	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	86.0		40 - 110					05/12/17 09:24	05/26/17 14:21	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.351</b>		0.226	0.228	5.00	0.340	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-8**

**Date Collected: 05/03/17 08:55**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-27**

**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	0.0681	U	0.0703	0.0706	1.00	0.111	pCi/L	05/12/17 09:05	06/05/17 05:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					05/12/17 09:05	06/05/17 05:53	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0117	U	0.223	0.223	1.00	0.404	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	85.2		40 - 110					05/12/17 09:24	05/26/17 14:21	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	0.0564	U	0.234	0.234	5.00	0.404	pCi/L		06/06/17 15:48	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-137272-28**

Date Collected: 05/03/17 10:10

Matrix: Water

Date Received: 05/05/17 08:23

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.49		0.210	0.250	1.00	0.0954	pCi/L	05/12/17 09:05	06/05/17 05:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					05/12/17 09:05	06/05/17 05:53	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.32		0.430	0.527	1.00	0.388	pCi/L	05/12/17 09:24	05/26/17 14:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					05/12/17 09:24	05/26/17 14:21	1
Y Carrier	90.5		40 - 110					05/12/17 09:24	05/26/17 14:21	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	4.82		0.478	0.584	5.00	0.388	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-137272-29**

**Date Collected: 05/03/17 10:15**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0336	U	0.0618	0.0619	1.00	0.110	pCi/L	05/12/17 10:50	06/05/17 06:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					05/12/17 10:50	06/05/17 06:07	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.268	U	0.233	0.234	1.00	0.373	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	80.4		40 - 110					05/12/17 10:17	05/26/17 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	0.301	U	0.241	0.242	5.00	0.373	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-10**  
**Date Collected: 05/03/17 10:30**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-30**  
**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	1.14		0.189	0.215	1.00	0.105	pCi/L	05/12/17 10:50	06/05/17 06:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/12/17 10:50	06/05/17 06:07	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.73		0.409	0.534	1.00	0.326	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	91.2		40 - 110					05/12/17 10:17	05/26/17 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	4.87		0.451	0.576	5.00	0.326	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-17**

**Date Collected: 05/03/17 12:00**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-31**

**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	0.0414	U	0.0673	0.0674	1.00	0.117	pCi/L	05/12/17 10:50	06/05/17 06:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/12/17 10:50	06/05/17 06:07	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.112	U	0.203	0.204	1.00	0.346	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	81.5		40 - 110					05/12/17 10:17	05/26/17 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	0.153	U	0.214	0.214	5.00	0.346	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-15**

**Date Collected: 05/03/17 12:30**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-32**

**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	0.127		0.0759	0.0767	1.00	0.0930	pCi/L	05/12/17 10:50	06/05/17 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					05/12/17 10:50	06/05/17 06:08	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.128	U	0.177	0.177	1.00	0.296	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	86.4		40 - 110					05/12/17 10:17	05/26/17 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	0.255	U	0.193	0.193	5.00	0.296	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-13**

**Date Collected: 05/03/17 12:50**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-33**

**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	0.0271	U	0.0606	0.0606	1.00	0.110	pCi/L	05/12/17 10:50	06/05/17 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					05/12/17 10:50	06/05/17 06:08	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.265	U	0.212	0.214	1.00	0.335	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	87.1		40 - 110					05/12/17 10:17	05/26/17 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	0.293	U	0.221	0.222	5.00	0.335	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-137272-34**

**Date Collected: 05/03/17 13:52**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.185		0.0898	0.0913	1.00	0.102	pCi/L	05/12/17 10:50	06/05/17 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					05/12/17 10:50	06/05/17 06:08	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.267	U	0.226	0.228	1.00	0.361	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	88.6		40 - 110					05/12/17 10:17	05/26/17 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	0.452		0.244	0.245	5.00	0.361	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-137272-35**

**Date Collected: 05/03/17 14:15**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0526	U	0.0554	0.0557	1.00	0.0861	pCi/L	05/12/17 10:50	06/05/17 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/12/17 10:50	06/05/17 06:08	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.204	0.204	1.00	0.332	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	86.0		40 - 110					05/12/17 10:17	05/26/17 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	0.244	U	0.211	0.212	5.00	0.332	pCi/L		06/06/17 15:48	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-22**

**Date Collected: 05/03/17 14:40**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-36**

**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	0.0799	U	0.0799	0.0802	1.00	0.126	pCi/L	05/12/17 10:50	06/05/17 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					05/12/17 10:50	06/05/17 06:08	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.113	U	0.191	0.192	1.00	0.325	pCi/L	05/12/17 10:17	05/26/17 10:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					05/12/17 10:17	05/26/17 10:41	1
Y Carrier	90.1		40 - 110					05/12/17 10:17	05/26/17 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	0.193	U	0.207	0.208	5.00	0.325	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-137272-37**

**Date Collected: 05/03/17 14:50**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0743	U	0.0698	0.0702	1.00	0.107	pCi/L	05/12/17 10:50	06/05/17 06:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/12/17 10:50	06/05/17 06:08	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.321	U	0.244	0.246	1.00	0.385	pCi/L	05/12/17 10:17	05/26/17 10:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/12/17 10:17	05/26/17 10:42	1
Y Carrier	86.4		40 - 110					05/12/17 10:17	05/26/17 10:42	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	0.395		0.254	0.256	5.00	0.385	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: FB-3**  
**Date Collected: 05/03/17 13:55**  
**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-38**  
**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	0.0339	U	0.0643	0.0644	1.00	0.114	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/12/17 10:50	06/05/17 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	0.485		0.288	0.291	1.00	0.443	pCi/L	05/12/17 10:17	05/26/17 10:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/12/17 10:17	05/26/17 10:47	1
Y Carrier	87.5		40 - 110					05/12/17 10:17	05/26/17 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	0.518		0.295	0.298	5.00	0.443	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-137272-39**

**Date Collected: 05/03/17 10:50**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0416	U	0.0605	0.0606	1.00	0.103	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					05/12/17 10:50	06/05/17 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	-0.161	U	0.224	0.225	1.00	0.423	pCi/L	05/12/17 10:17	05/26/17 10:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					05/12/17 10:17	05/26/17 10:47	1
Y Carrier	86.4		40 - 110					05/12/17 10:17	05/26/17 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	-0.119	U	0.232	0.233	5.00	0.423	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-137272-40**

**Date Collected: 05/03/17 00:00**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

**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	0.0610	0.0611	1.00	0.105	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/12/17 10:50	06/05/17 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	0.0243	U	0.232	0.232	1.00	0.408	pCi/L	05/12/17 10:17	05/26/17 10:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/12/17 10:17	05/26/17 10:47	1
Y Carrier	83.4		40 - 110					05/12/17 10:17	05/26/17 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	0.0637	U	0.240	0.240	5.00	0.408	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-23**

**Date Collected: 05/04/17 09:55**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-41**

**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	0.0454	U	0.0667	0.0668	1.00	0.114	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					05/12/17 10:50	06/05/17 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	0.0601	U	0.293	0.293	1.00	0.509	pCi/L	05/12/17 10:17	05/26/17 10:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					05/12/17 10:17	05/26/17 10:47	1
Y Carrier	81.1		40 - 110					05/12/17 10:17	05/26/17 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	0.105	U	0.301	0.301	5.00	0.509	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Date Collected: 05/04/17 10:05**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-42**

**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	0.0193	U	0.0647	0.0648	1.00	0.122	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					05/12/17 10:50	06/05/17 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	-0.00870	U	0.238	0.238	1.00	0.426	pCi/L	05/12/17 10:17	05/26/17 10:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.4		40 - 110					05/12/17 10:17	05/26/17 10:48	1
Y Carrier	84.5		40 - 110					05/12/17 10:17	05/26/17 10:48	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0106	U	0.247	0.247	5.00	0.426	pCi/L		06/06/17 15:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-24**

**Date Collected: 05/04/17 10:40**

**Date Received: 05/05/17 08:23**

**Lab Sample ID: 400-137272-43**

**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	0.0907	U	0.0713	0.0718	1.00	0.101	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/12/17 10:50	06/05/17 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	0.107	U	0.214	0.214	1.00	0.365	pCi/L	05/12/17 10:17	05/26/17 10:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/12/17 10:17	05/26/17 10:48	1
Y Carrier	89.3		40 - 110					05/12/17 10:17	05/26/17 10:48	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.226	0.226	5.00	0.365	pCi/L		06/06/17 15:48	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-137272-44**

Date Collected: 05/04/17 11:12

Matrix: Water

Date Received: 05/05/17 08:23

**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		0.0743	0.0750	1.00	0.0975	pCi/L	05/12/17 10:50	06/05/17 07:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					05/12/17 10:50	06/05/17 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	0.0373	U	0.284	0.284	1.00	0.497	pCi/L	05/12/17 10:17	05/26/17 10:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					05/12/17 10:17	05/26/17 10:48	1
Y Carrier	84.1		40 - 110					05/12/17 10:17	05/26/17 10:48	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.146	U	0.294	0.294	5.00	0.497	pCi/L		06/06/17 15:48	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.
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	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 Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-137272-8**

**Date Collected: 05/01/17 12:30**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311845	06/05/17 05:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-137272-9**

**Date Collected: 05/01/17 12:45**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311845	06/05/17 05:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-137272-10**

**Date Collected: 05/01/17 15:50**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: FERB-1**

**Lab Sample ID: 400-137272-12**

**Date Collected: 05/01/17 14:00**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Lab Sample ID: 400-137272-13**

**Date Collected: 05/01/17 00:00**

**Matrix: Water**

**Date Received: 05/03/17 09:07**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-137272-14**

**Date Collected: 05/02/17 08:45**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-137272-16**

**Date Collected: 05/02/17 10:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-137272-17**

**Date Collected: 05/02/17 10:15**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-137272-18**

**Date Collected: 05/02/17 10:25**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-6**

**Lab Sample ID: 400-137272-19**

**Date Collected: 05/02/17 11:40**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-137272-20**

**Date Collected: 05/02/17 11:50**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-137272-21**

**Date Collected: 05/02/17 14:05**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311847	06/05/17 05:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-137272-22**

**Date Collected: 05/02/17 14:35**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-137272-23**

**Date Collected: 05/02/17 14:40**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: FB-2**

**Lab Sample ID: 400-137272-24**

**Date Collected: 05/02/17 12:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: FERB-2**

**Lab Sample ID: 400-137272-25**

**Date Collected: 05/02/17 11:05**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-137272-26**

**Date Collected: 05/02/17 00:00**

**Matrix: Water**

**Date Received: 05/04/17 08:51**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:52	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-137272-27**

**Date Collected: 05/03/17 08:55**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:53	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310747	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-137272-28**

**Date Collected: 05/03/17 10:10**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308387	05/12/17 09:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311850	06/05/17 05:53	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308395	05/12/17 09:24	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 14:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-137272-29**

**Date Collected: 05/03/17 10:15**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-137272-30**

**Date Collected: 05/03/17 10:30**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-137272-31**

**Date Collected: 05/03/17 12:00**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-137272-32**

**Date Collected: 05/03/17 12:30**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:08	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-137272-33**

**Date Collected: 05/03/17 12:50**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:08	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-137272-34**

**Date Collected: 05/03/17 13:52**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:08	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-137272-35**

**Date Collected: 05/03/17 14:15**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:08	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-137272-36**

**Date Collected: 05/03/17 14:40**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:08	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-137272-37**

**Date Collected: 05/03/17 14:50**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 06:08	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310746	05/26/17 10:42	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## Client Sample ID: FB-3

## Lab Sample ID: 400-137272-38

Date Collected: 05/03/17 13:55

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

## Client Sample ID: FERB-3

## Lab Sample ID: 400-137272-39

Date Collected: 05/03/17 10:50

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

## Client Sample ID: DUP-3

## Lab Sample ID: 400-137272-40

Date Collected: 05/03/17 00:00

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

## Client Sample ID: GWC-23

## Lab Sample ID: 400-137272-41

Date Collected: 05/04/17 09:55

Matrix: Water

Date Received: 05/05/17 08:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-137272-42**

**Date Collected: 05/04/17 10:05**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-137272-43**

**Date Collected: 05/04/17 10:40**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	RTM	TAL SL

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-137272-44**

**Date Collected: 05/04/17 11:12**

**Matrix: Water**

**Date Received: 05/05/17 08:23**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			308410	05/12/17 10:50	LDE	TAL SL
Total/NA	Analysis	9315		1	311964	06/05/17 07:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			308407	05/12/17 10:17	LDE	TAL SL
Total/NA	Analysis	9320		1	310847	05/26/17 10:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	312137	06/06/17 15:48	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 Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## Rad

### Prep Batch: 308387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total/NA	Water	PrecSep-21	
400-137272-9	GWC-30	Total/NA	Water	PrecSep-21	
400-137272-10	GWC-34	Total/NA	Water	PrecSep-21	
400-137272-12	FERB-1	Total/NA	Water	PrecSep-21	
400-137272-13	DUP-1	Total/NA	Water	PrecSep-21	
400-137272-14	GWC-25	Total/NA	Water	PrecSep-21	
400-137272-16	GWC-5	Total/NA	Water	PrecSep-21	
400-137272-17	GWC-32	Total/NA	Water	PrecSep-21	
400-137272-18	GWC-7	Total/NA	Water	PrecSep-21	
400-137272-19	GWC-6	Total/NA	Water	PrecSep-21	
400-137272-20	GWC-35	Total/NA	Water	PrecSep-21	
400-137272-21	GWC-9	Total/NA	Water	PrecSep-21	
400-137272-22	GWC-11	Total/NA	Water	PrecSep-21	
400-137272-23	GWC-33	Total/NA	Water	PrecSep-21	
400-137272-24	FB-2	Total/NA	Water	PrecSep-21	
400-137272-25	FERB-2	Total/NA	Water	PrecSep-21	
400-137272-26	DUP-2	Total/NA	Water	PrecSep-21	
400-137272-27	GWC-8	Total/NA	Water	PrecSep-21	
400-137272-28	GWC-12	Total/NA	Water	PrecSep-21	
MB 160-308387/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-308387/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137272-19 DU	GWC-6	Total/NA	Water	PrecSep-21	

### Prep Batch: 308395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-8	GWC-26	Total/NA	Water	PrecSep_0	
400-137272-9	GWC-30	Total/NA	Water	PrecSep_0	
400-137272-10	GWC-34	Total/NA	Water	PrecSep_0	
400-137272-12	FERB-1	Total/NA	Water	PrecSep_0	
400-137272-13	DUP-1	Total/NA	Water	PrecSep_0	
400-137272-14	GWC-25	Total/NA	Water	PrecSep_0	
400-137272-16	GWC-5	Total/NA	Water	PrecSep_0	
400-137272-17	GWC-32	Total/NA	Water	PrecSep_0	
400-137272-18	GWC-7	Total/NA	Water	PrecSep_0	
400-137272-19	GWC-6	Total/NA	Water	PrecSep_0	
400-137272-20	GWC-35	Total/NA	Water	PrecSep_0	
400-137272-21	GWC-9	Total/NA	Water	PrecSep_0	
400-137272-22	GWC-11	Total/NA	Water	PrecSep_0	
400-137272-23	GWC-33	Total/NA	Water	PrecSep_0	
400-137272-24	FB-2	Total/NA	Water	PrecSep_0	
400-137272-25	FERB-2	Total/NA	Water	PrecSep_0	
400-137272-26	DUP-2	Total/NA	Water	PrecSep_0	
400-137272-27	GWC-8	Total/NA	Water	PrecSep_0	
400-137272-28	GWC-12	Total/NA	Water	PrecSep_0	
MB 160-308395/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-308395/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137272-19 DU	GWC-6	Total/NA	Water	PrecSep_0	

### Prep Batch: 308407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-29	GWC-16	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

## Rad (Continued)

### Prep Batch: 308407 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-30	GWC-10	Total/NA	Water	PrecSep_0	
400-137272-31	GWC-17	Total/NA	Water	PrecSep_0	
400-137272-32	GWC-15	Total/NA	Water	PrecSep_0	
400-137272-33	GWC-13	Total/NA	Water	PrecSep_0	
400-137272-34	GWC-14	Total/NA	Water	PrecSep_0	
400-137272-35	GWC-18	Total/NA	Water	PrecSep_0	
400-137272-36	GWC-22	Total/NA	Water	PrecSep_0	
400-137272-37	GWC-19	Total/NA	Water	PrecSep_0	
400-137272-38	FB-3	Total/NA	Water	PrecSep_0	
400-137272-39	FERB-3	Total/NA	Water	PrecSep_0	
400-137272-40	DUP-3	Total/NA	Water	PrecSep_0	
400-137272-41	GWC-23	Total/NA	Water	PrecSep_0	
400-137272-42	GWC-20	Total/NA	Water	PrecSep_0	
400-137272-43	GWC-24	Total/NA	Water	PrecSep_0	
400-137272-44	GWC-21	Total/NA	Water	PrecSep_0	
MB 160-308407/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-308407/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137272-31 DU	GWC-17	Total/NA	Water	PrecSep_0	

### Prep Batch: 308410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137272-29	GWC-16	Total/NA	Water	PrecSep-21	
400-137272-30	GWC-10	Total/NA	Water	PrecSep-21	
400-137272-31	GWC-17	Total/NA	Water	PrecSep-21	
400-137272-32	GWC-15	Total/NA	Water	PrecSep-21	
400-137272-33	GWC-13	Total/NA	Water	PrecSep-21	
400-137272-34	GWC-14	Total/NA	Water	PrecSep-21	
400-137272-35	GWC-18	Total/NA	Water	PrecSep-21	
400-137272-36	GWC-22	Total/NA	Water	PrecSep-21	
400-137272-37	GWC-19	Total/NA	Water	PrecSep-21	
400-137272-38	FB-3	Total/NA	Water	PrecSep-21	
400-137272-39	FERB-3	Total/NA	Water	PrecSep-21	
400-137272-40	DUP-3	Total/NA	Water	PrecSep-21	
400-137272-41	GWC-23	Total/NA	Water	PrecSep-21	
400-137272-42	GWC-20	Total/NA	Water	PrecSep-21	
400-137272-43	GWC-24	Total/NA	Water	PrecSep-21	
400-137272-44	GWC-21	Total/NA	Water	PrecSep-21	
MB 160-308410/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-308410/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137272-31 DU	GWC-17	Total/NA	Water	PrecSep-21	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-308387/1-A**  
**Matrix: Water**  
**Analysis Batch: 311845**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 308387**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04187	U	0.0487	0.0489	1.00	0.0781	pCi/L	05/12/17 09:05	06/05/17 05:50	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	97.3		40 - 110	05/12/17 09:05	06/05/17 05:50	1				

**Lab Sample ID: LCS 160-308387/2-A**  
**Matrix: Water**  
**Analysis Batch: 311845**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 308387**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.09		1.05	1.00	0.102	pCi/L	89	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	95.9		40 - 110	05/12/17 09:05	06/05/17 05:50	1			

**Lab Sample ID: 400-137272-19 DU**  
**Matrix: Water**  
**Analysis Batch: 311847**

**Client Sample ID: GWC-6**  
**Prep Type: Total/NA**  
**Prep Batch: 308387**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0473	U	0.04704	U	0.0558	1.00	0.0898	pCi/L	0	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	82.0		40 - 110	05/12/17 10:50	06/05/17 06:07	1				

**Lab Sample ID: MB 160-308410/1-A**  
**Matrix: Water**  
**Analysis Batch: 311964**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 308410**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.003687	U	0.0557	0.0557	1.00	0.112	pCi/L	05/12/17 10:50	06/05/17 06:07	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	96.5		40 - 110	05/12/17 10:50	06/05/17 06:07	1				

**Lab Sample ID: LCS 160-308410/2-A**  
**Matrix: Water**  
**Analysis Batch: 311964**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 308410**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.761		1.03	1.00	0.0992	pCi/L	86	68 - 137

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: LCS 160-308410/2-A**  
**Matrix: Water**  
**Analysis Batch: 311964**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 308410**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	100		40 - 110

**Lab Sample ID: 400-137272-31 DU**  
**Matrix: Water**  
**Analysis Batch: 311964**

**Client Sample ID: GWC-17**  
**Prep Type: Total/NA**  
**Prep Batch: 308410**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0414	U	0.002361	U	0.0466	1.00	0.0990	pCi/L	0.34	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.8		40 - 110

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-308395/1-A**  
**Matrix: Water**  
**Analysis Batch: 310747**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 308395**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2180	U	0.203	0.204	1.00	0.326	pCi/L	05/12/17 09:24	05/26/17 14:19	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110	05/12/17 09:24	05/26/17 14:19	1
Y Carrier	88.6		40 - 110	05/12/17 09:24	05/26/17 14:19	1

**Lab Sample ID: LCS 160-308395/2-A**  
**Matrix: Water**  
**Analysis Batch: 310747**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 308395**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.4	13.98		1.49	1.00	0.331	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.9		40 - 110
Y Carrier	89.3		40 - 110

**Lab Sample ID: 400-137272-19 DU**  
**Matrix: Water**  
**Analysis Batch: 310747**

**Client Sample ID: GWC-6**  
**Prep Type: Total/NA**  
**Prep Batch: 308395**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.354	U	0.5731		0.274	1.00	0.391	pCi/L	0.41	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: 400-137272-19 DU**  
**Matrix: Water**  
**Analysis Batch: 310747**

**Client Sample ID: GWC-6**  
**Prep Type: Total/NA**  
**Prep Batch: 308395**

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	82.0		40 - 110
Y Carrier	94.2		40 - 110

**Lab Sample ID: MB 160-308407/1-A**  
**Matrix: Water**  
**Analysis Batch: 310746**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 308407**

Analyte	<i>MB</i> Result	<i>MB</i> Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2166	U	0.228	0.229	1.00	0.372	pCi/L	05/12/17 10:17	05/26/17 10:40	1

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110	05/12/17 10:17	05/26/17 10:40	1
Y Carrier	85.2		40 - 110	05/12/17 10:17	05/26/17 10:40	1

**Lab Sample ID: LCS 160-308407/2-A**  
**Matrix: Water**  
**Analysis Batch: 310746**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 308407**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.4	13.31		1.42	1.00	0.331	pCi/L	99	56 - 140

Carrier	<i>LCS</i> %Yield	<i>LCS</i> Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	91.6		40 - 110

**Lab Sample ID: 400-137272-31 DU**  
**Matrix: Water**  
**Analysis Batch: 310746**

**Client Sample ID: GWC-17**  
**Prep Type: Total/NA**  
**Prep Batch: 308407**

Analyte	Sample Result	Sample Qual	<i>DU</i> Result	<i>DU</i> Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.112	U	0.09183	U	0.174	1.00	0.297	pCi/L	0.05	1

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	88.2		40 - 110



# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-137272-19 DU**  
**Matrix: Water**  
**Analysis Batch: 312137**

**Client Sample ID: GWC-6**  
**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	0.401		0.6201		0.280	5.00	0.391	pCi/L	0.40	

**Lab Sample ID: 400-137272-31 DU**  
**Matrix: Water**  
**Analysis Batch: 312137**

**Client Sample ID: GWC-17**  
**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	0.153	U	0.09419	U	0.180	5.00	0.297	pCi/L	0.15	



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact:  
 Joju Abraham  
 Company:  
 Southern Company

Sampler:  
 T Payne TPC Hurdle CH  
 Phone:

Lab PM:  
 Whitmire, Cheyenne R  
 E-Mail:  
 cheyenne.whitmire@testamericainc.com

COC No:  
 Page:  
 Job #:

Carrier Tracking No(s):  
 400-137272

Address:  
 241 Ralph McGill Blvd SE B10185  
 City:  
 Atlanta  
 State, Zip:  
 GA, 30308  
 Phone:  
 404-506-7239  
 Email:  
 JAbraham@southernco.com  
 Project Name:  
 Plant Wansley - Gypsum Landfill  
 Site:  
 CCR

**Analysis Requested**

Due Date Requested:	TAT Requested (days):	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C : Cl.F.S04 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320
		X	X	X	X	X



Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=leachate, T=tissue, A=air)	Preservation Code	Total Number of Containers	Special Instructions/Note:
GWC-26	5/1/17	1230	G	W	D	3	
GWC-30	5/1/17	1245	G	W	D	3	
GWC-34	5/1/17	1550	G	W	D	3	
GWC-33	5/1/17	1625	G	W	D	2	
FERB-1	5/1/17	1400	G	W	D	3	
DUP-1	5/1/17	-	G	W	D	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:**  
 Relinquished by: [Signature] Date: 5/2/17  
 Relinquished by: [Signature] Date: 5/2/17  
 Relinquished by: [Signature] Date: 5/2/17  
 Custody Seal No.: 4116 J.A.R.



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact:  
 Jolu 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

Lab PM:  
 Whitmire, Cheyenne R.  
 E-Mail:  
 cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):

COC No:  
 Page:  
 Job # 400-137272

**Analysis Requested**

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TTS - SM 2540C : Cl <sup>-</sup> , SO <sub>4</sub> - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWC-25	5/2/17	0845	G	W			X	X	X	3	
GWC-31	5/2/17	0950	G	W			X	X		1	Metals only
GWC-5	5/2/17	1000	G	W			X	X		3	
GWC-32	5/2/17	1015	G	W			X	X		3	
GWC-7	5/2/17	1025	G	W			X	X		3	
GWC-6	5/2/17	1140	G	W			X	X		4	Extra radium sample collected for lab QA/QC
GWC-35	5/2/17	1150	G	W			X	X		3	
GWC-9	5/2/17	1405	G	W			X	X		3	
GWC-11	5/2/17	1435	G	W			X	X		3	
GWC-33	5/2/17	1440	G	W			X	X		1	Radium only
FB-2	5/2/17	1200	G	W			X	X		3	
FERB-2	5/2/17	1105	G	W			X	X		3	
DUP-2	5/2/17	-	G	W			X	X		3	

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:**  
 Relinquished by: [Signature] Date: 5/3/17/1255 Company: [Signature] Company:  
 Relinquished by: [Signature] Date: 5/3/17/1600 Company: [Signature] Company:  
 Relinquished by: [Signature] Date: [Signature] Company: [Signature] Company:

**Custody Seals Intact:**  Yes  No  
 Custody Seal No.: 0.02 JOL

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

### Chain of Custody Record

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Carrier Tracking No(s): \_\_\_\_\_  
 Lab PM: Whitmire, Cheyenne R  
 Sampler: T Payne, TP T, Thomas TTC, Hurdle CHM, Rogers MR  
 Client Contact: Joju Abraham  
 Client Information: 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Due Date Requested: \_\_\_\_\_  
 TAT Requested (days): \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 WO #: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 SSO#: \_\_\_\_\_

Sample Identification	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)	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
GWC-8	5/3/17	0855	G	W	X	X	X	X	3	
GWC-12	5/3/17	1010	G	W	X	X	X	X	3	
GWC-16	5/3/17	1015	G	W	X	X	X	X	3	
GWC-10	5/3/17	1030	G	W	X	X	X	X	3	
GWC-17	5/3/17	1200	G	W	X	X	X	X	4	Extra radium sample collected for lab QA/QC
GWC-15	5/3/17	1230	G	W	X	X	X	X	3	
GWC-13	5/3/17	1250	G	W	X	X	X	X	3	
GWC-14	5/3/17	1352	G	W	X	X	X	X	3	
GWC-18	5/3/17	1415	G	W	X	X	X	X	3	
GWC-22	5/3/17	1440	G	W	X	X	X	X	3	
GWC-19	5/3/17	1450	G	W	X	X	X	X	3	
FB-3	5/3/17	1355	G	W	X	X	X	X	3	
FERB-3	5/3/17	1050	G	W	X	X	X	X	3	
DUP-3	5/3/17	-	G	W	X	X	X	X	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_

**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: 5/4/17 12:45  
 Relinquished by: \_\_\_\_\_ Date/Time: 5/4/17 17:00  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: 5/4/17 15:30  
 Relinquished by: \_\_\_\_\_ Date/Time: 5/4/17 04:33  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 3.6, 5.1, 6.3, 7.2



Job #: 137272

- 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: \_\_\_\_\_

- Analysis**
- 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)



### 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sampler: T Payne TP, M. Rogers HR  
 Lab PM: Whitmire, Chyenne R  
 Carrier Tracking No(s):  
 Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		TDS - SM 2540C : Cl,F,S04 - EPA 300		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9315 & 9320		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C : Cl,F,S04 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320							
GWC-23	5/4/17	0955	G	W	X	X	X	X	X	X	X	X	X	3		
GWC-20	5/4/17	1005	G	W	X	X	X	X	X	X	X	X	X	3		
GWC-24	5/4/17	1040	G	W	X	X	X	X	X	X	X	X	X	3		
GWC-21	5/4/17	1112	G	W	X	X	X	X	X	X	X	X	X	3		

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** [Signature] Date: 5/4/17  
**Relinquished by:** [Signature] Date: 5/4/17  
**Relinquished by:** [Signature] Date: 5/4/17  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements:  
 Method of Shipment:  
 Received by: [Signature] Date/Time: 5/4/17 1530 Company: 7A  
 Received by: [Signature] Date/Time: 5-5-17 0823 Company:  
 Received by: [Signature] Date/Time: Company:  
 Cooler Temperature(s) °C and Other Remarks:



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-137272-4  
SDG Number: Gypsum Landfill

**Login Number: 137272**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 4.1°C, 0.0°C, 3.6°C, 5.1°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 Wansley

TestAmerica Job ID: 400-137272-4  
SDG: Gypsum Landfill

## 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	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	05-15-18
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 Wansley

TestAmerica Job ID: 400-137272-4  
 SDG: Gypsum Landfill

## 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

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: 400-140852-1

TestAmerica Sample Delivery Group: Gypsum Landfill

Client Project/Site: CCR - Plant Wansley


For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

8/10/2017 1:12:29 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

TotalAccess

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

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**Job ID: 400-140852-1**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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**Job Narrative**  
**400-140852-1**

### Metals

Method(s) 6020: The method blank for preparation batch 362047 and analytical batch 363171 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were either non-detect or greater than 10X the value found in the method blank.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Client Sample ID: GWA-29

## Lab Sample ID: 400-140852-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	6.0		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0016	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0018	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	0.027	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.9	B	0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.040		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0022	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-1

## Lab Sample ID: 400-140852-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.1		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	6.0		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00052	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.00088	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0019	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	3.7	B	0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.040		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0023	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-31

## Lab Sample ID: 400-140852-3

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	1.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	15		1.0	0.70	mg/L	1		300.0	Total/NA
Arsenic	0.00055	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.0040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00083	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	10	B	0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00051	J	0.0013	0.00035	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 Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Client Sample ID: GWC-31 (Continued)

## Lab Sample ID: 400-140852-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.026		0.0050	0.0032	mg/L	5		6020	Total
Molybdenum	0.00090	J	0.015	0.00085	mg/L	5		6020	Recoverable Total
Selenium	0.00068	J	0.0013	0.00024	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FERB-1

## Lab Sample ID: 400-140852-4

No Detections.

## Client Sample ID: GWC-33

## Lab Sample ID: 400-140852-5

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	3.4		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-1

## Lab Sample ID: 400-140852-6

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-140852-1	GWA-29	Water	07/18/17 13:05	07/21/17 08:42
400-140852-2	DUP-1	Water	07/18/17 00:00	07/21/17 08:42
400-140852-3	GWC-31	Water	07/19/17 10:00	07/21/17 08:42
400-140852-4	FERB-1	Water	07/19/17 10:20	07/21/17 08:42
400-140852-5	GWC-33	Water	07/19/17 10:45	07/21/17 08:42
400-140852-6	FB-1	Water	07/19/17 10:55	07/21/17 08:42

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 07/18/17 13:05**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-1**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			07/26/17 05:26	1
Fluoride	2.2		0.20	0.082	mg/L			07/26/17 05:26	1
Sulfate	6.0		1.0	0.70	mg/L			07/26/17 05:26	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		07/28/17 10:01	08/05/17 17:39	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/17 10:01	08/05/17 17:39	5
Barium	0.0016	J	0.0025	0.00049	mg/L		07/28/17 10:01	08/05/17 17:39	5
Beryllium	0.0018	J	0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 17:39	5
Boron	0.027	J	0.050	0.021	mg/L		07/28/17 10:01	08/05/17 17:39	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 17:39	5
Calcium	3.9	B	0.25	0.13	mg/L		07/28/17 10:01	08/05/17 17:39	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/17 10:01	08/05/17 17:39	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/17 10:01	08/05/17 17:39	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/17 10:01	08/05/17 17:39	5
Lithium	0.040		0.0050	0.0032	mg/L		07/28/17 10:01	08/05/17 17:39	5
Molybdenum	0.0022	J	0.015	0.00085	mg/L		07/28/17 10:01	08/05/17 17:39	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/17 10:01	08/05/17 17:39	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/17 10:01	08/05/17 17:39	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		07/26/17 09:09	07/27/17 14:29	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	84		5.0	3.4	mg/L			07/22/17 15:11	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 07/18/17 00:00**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			07/26/17 05:49	1
Fluoride	2.1		0.20	0.082	mg/L			07/26/17 05:49	1
Sulfate	6.0		1.0	0.70	mg/L			07/26/17 05:49	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		07/28/17 10:01	08/05/17 17:44	5
Arsenic	0.00052	J	0.0013	0.00046	mg/L		07/28/17 10:01	08/05/17 17:44	5
Barium	0.00088	J	0.0025	0.00049	mg/L		07/28/17 10:01	08/05/17 17:44	5
Beryllium	0.0019	J	0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 17:44	5
Boron	<0.021		0.050	0.021	mg/L		07/28/17 10:01	08/05/17 17:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 17:44	5
Calcium	3.7	B	0.25	0.13	mg/L		07/28/17 10:01	08/05/17 17:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/17 10:01	08/05/17 17:44	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/17 10:01	08/05/17 17:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/17 10:01	08/05/17 17:44	5
Lithium	0.040		0.0050	0.0032	mg/L		07/28/17 10:01	08/05/17 17:44	5
Molybdenum	0.0023	J	0.015	0.00085	mg/L		07/28/17 10:01	08/05/17 17:44	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/17 10:01	08/05/17 17:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/17 10:01	08/05/17 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		07/26/17 09:09	07/27/17 14:31	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			07/22/17 15:11	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-31**  
**Date Collected: 07/19/17 10:00**  
**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-3**  
**Matrix: Water**

**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			07/26/17 06:12	1
Fluoride	1.6		0.20	0.082	mg/L			07/26/17 06:12	1
Sulfate	15		1.0	0.70	mg/L			07/26/17 06:12	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		07/28/17 10:01	08/05/17 17:49	5
Arsenic	0.00055	J	0.0013	0.00046	mg/L		07/28/17 10:01	08/05/17 17:49	5
Barium	0.0040		0.0025	0.00049	mg/L		07/28/17 10:01	08/05/17 17:49	5
Beryllium	0.00083	J	0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 17:49	5
Boron	<0.021		0.050	0.021	mg/L		07/28/17 10:01	08/05/17 17:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 17:49	5
Calcium	10	B	0.25	0.13	mg/L		07/28/17 10:01	08/05/17 17:49	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		07/28/17 10:01	08/05/17 17:49	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/17 10:01	08/05/17 17:49	5
Lead	0.00051	J	0.0013	0.00035	mg/L		07/28/17 10:01	08/05/17 17:49	5
Lithium	0.026		0.0050	0.0032	mg/L		07/28/17 10:01	08/05/17 17:49	5
Molybdenum	0.00090	J	0.015	0.00085	mg/L		07/28/17 10:01	08/05/17 17:49	5
Selenium	0.00068	J	0.0013	0.00024	mg/L		07/28/17 10:01	08/05/17 17:49	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/17 10:01	08/05/17 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		07/26/17 09:09	07/27/17 14:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			07/22/17 15:46	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: FERB-1**

**Date Collected: 07/19/17 10:20**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-4**

**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			07/26/17 06:34	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/17 06:34	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/17 06:34	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		07/28/17 10:01	08/05/17 18:13	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/17 10:01	08/05/17 18:13	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/17 10:01	08/05/17 18:13	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 18:13	5
Boron	<0.021		0.050	0.021	mg/L		07/28/17 10:01	08/05/17 18:13	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 18:13	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/17 10:01	08/05/17 18:13	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/17 10:01	08/05/17 18:13	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/17 10:01	08/05/17 18:13	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/17 10:01	08/05/17 18:13	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/17 10:01	08/05/17 18:13	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/17 10:01	08/05/17 18:13	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/17 10:01	08/05/17 18:13	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/17 10:01	08/05/17 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		07/26/17 09:09	07/27/17 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			07/22/17 15:46	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
 SDG: Gypsum Landfill

**Client Sample ID: GWC-33**  
**Date Collected: 07/19/17 10:45**  
**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-5**  
**Matrix: Water**

## 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			07/26/17 06:57	1
Fluoride	3.4		0.20	0.082	mg/L			07/26/17 06:57	1
Sulfate	22		1.0	0.70	mg/L			07/26/17 06:57	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			07/25/17 14:37	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: FB-1**  
**Date Collected: 07/19/17 10:55**  
**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-6**  
**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			07/26/17 07:20	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/17 07:20	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/17 07:20	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		07/28/17 10:01	08/05/17 18:19	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/17 10:01	08/05/17 18:19	5
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/17 10:01	08/05/17 18:19	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 18:19	5
Boron	<0.021		0.050	0.021	mg/L		07/28/17 10:01	08/05/17 18:19	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 18:19	5
Calcium	<0.13		0.25	0.13	mg/L		07/28/17 10:01	08/05/17 18:19	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/17 10:01	08/05/17 18:19	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/17 10:01	08/05/17 18:19	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/17 10:01	08/05/17 18:19	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/17 10:01	08/05/17 18:19	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/17 10:01	08/05/17 18:19	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/17 10:01	08/05/17 18:19	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/17 10:01	08/05/17 18:19	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		07/26/17 09:09	07/27/17 14:36	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			07/25/17 14:37	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## 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.
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 Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 07/18/17 13:05**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	361746	07/26/17 05:26	TAJ	TAL PEN
Total Recoverable	Prep	3005A			362047	07/28/17 10:01	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	363171	08/05/17 17:39	DRE	TAL PEN
Total/NA	Prep	7470A			361705	07/26/17 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	361988	07/27/17 14:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	361402	07/22/17 15:11	TET	TAL PEN

**Client Sample ID: DUP-1**

**Date Collected: 07/18/17 00:00**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	361746	07/26/17 05:49	TAJ	TAL PEN
Total Recoverable	Prep	3005A			362047	07/28/17 10:01	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	363171	08/05/17 17:44	DRE	TAL PEN
Total/NA	Prep	7470A			361705	07/26/17 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	361988	07/27/17 14:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	361402	07/22/17 15:11	TET	TAL PEN

**Client Sample ID: GWC-31**

**Date Collected: 07/19/17 10:00**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	361746	07/26/17 06:12	TAJ	TAL PEN
Total Recoverable	Prep	3005A			362047	07/28/17 10:01	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	363171	08/05/17 17:49	DRE	TAL PEN
Total/NA	Prep	7470A			361705	07/26/17 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	361988	07/27/17 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	361404	07/22/17 15:46	TET	TAL PEN

**Client Sample ID: FERB-1**

**Date Collected: 07/19/17 10:20**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	361746	07/26/17 06:34	TAJ	TAL PEN
Total Recoverable	Prep	3005A			362047	07/28/17 10:01	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	363171	08/05/17 18:13	DRE	TAL PEN
Total/NA	Prep	7470A			361705	07/26/17 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	361988	07/27/17 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	361404	07/22/17 15:46	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

**Client Sample ID: GWC-33**

**Date Collected: 07/19/17 10:45**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	361746	07/26/17 06:57	TAJ	TAL PEN
Total/NA	Analysis	SM 2540C		1	361566	07/25/17 14:37	TET	TAL PEN

**Client Sample ID: FB-1**

**Date Collected: 07/19/17 10:55**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	361746	07/26/17 07:20	TAJ	TAL PEN
Total Recoverable	Prep	3005A			362047	07/28/17 10:01	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	363171	08/05/17 18:19	DRE	TAL PEN
Total/NA	Prep	7470A			361705	07/26/17 09:09	JAP	TAL PEN
Total/NA	Analysis	7470A		1	361988	07/27/17 14:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	361566	07/25/17 14:37	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 Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## HPLC/IC

### Analysis Batch: 361746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total/NA	Water	300.0	
400-140852-2	DUP-1	Total/NA	Water	300.0	
400-140852-3	GWC-31	Total/NA	Water	300.0	
400-140852-4	FERB-1	Total/NA	Water	300.0	
400-140852-5	GWC-33	Total/NA	Water	300.0	
400-140852-6	FB-1	Total/NA	Water	300.0	
MB 400-361746/39	Method Blank	Total/NA	Water	300.0	
LCS 400-361746/40	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-361746/41	Lab Control Sample Dup	Total/NA	Water	300.0	
400-140890-A-15 MS	Matrix Spike	Total/NA	Water	300.0	
400-140890-A-15 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 361705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total/NA	Water	7470A	
400-140852-2	DUP-1	Total/NA	Water	7470A	
400-140852-3	GWC-31	Total/NA	Water	7470A	
400-140852-4	FERB-1	Total/NA	Water	7470A	
400-140852-6	FB-1	Total/NA	Water	7470A	
MB 400-361705/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-361705/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-140784-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-140784-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 361988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total/NA	Water	7470A	361705
400-140852-2	DUP-1	Total/NA	Water	7470A	361705
400-140852-3	GWC-31	Total/NA	Water	7470A	361705
400-140852-4	FERB-1	Total/NA	Water	7470A	361705
400-140852-6	FB-1	Total/NA	Water	7470A	361705
MB 400-361705/14-A	Method Blank	Total/NA	Water	7470A	361705
LCS 400-361705/15-A	Lab Control Sample	Total/NA	Water	7470A	361705
400-140784-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	361705
400-140784-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	361705

### Prep Batch: 362047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total Recoverable	Water	3005A	
400-140852-2	DUP-1	Total Recoverable	Water	3005A	
400-140852-3	GWC-31	Total Recoverable	Water	3005A	
400-140852-4	FERB-1	Total Recoverable	Water	3005A	
400-140852-6	FB-1	Total Recoverable	Water	3005A	
MB 400-362047/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-362047/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-140853-A-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-140853-A-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Metals (Continued)

### Analysis Batch: 363171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total Recoverable	Water	6020	362047
400-140852-2	DUP-1	Total Recoverable	Water	6020	362047
400-140852-3	GWC-31	Total Recoverable	Water	6020	362047
400-140852-4	FERB-1	Total Recoverable	Water	6020	362047
400-140852-6	FB-1	Total Recoverable	Water	6020	362047
MB 400-362047/1-A ^5	Method Blank	Total Recoverable	Water	6020	362047
LCS 400-362047/2-A	Lab Control Sample	Total Recoverable	Water	6020	362047
400-140853-A-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	362047
400-140853-A-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	362047

## General Chemistry

### Analysis Batch: 361402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total/NA	Water	SM 2540C	
400-140852-2	DUP-1	Total/NA	Water	SM 2540C	
MB 400-361402/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-361402/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-140738-E-2 DU	Duplicate	Total/NA	Water	SM 2540C	
400-140784-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 361404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-3	GWC-31	Total/NA	Water	SM 2540C	
400-140852-4	FERB-1	Total/NA	Water	SM 2540C	
MB 400-361404/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-361404/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-140834-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 361566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-5	GWC-33	Total/NA	Water	SM 2540C	
400-140852-6	FB-1	Total/NA	Water	SM 2540C	
MB 400-361566/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-361566/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-140852-5 DU	GWC-33	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-361746/39**  
**Matrix: Water**  
**Analysis Batch: 361746**

**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			07/26/17 01:15	1
Fluoride	<0.082		0.20	0.082	mg/L			07/26/17 01:15	1
Sulfate	<0.70		1.0	0.70	mg/L			07/26/17 01:15	1

**Lab Sample ID: LCS 400-361746/40**  
**Matrix: Water**  
**Analysis Batch: 361746**

**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	9.73		mg/L		97	90 - 110
Fluoride	10.0	9.76		mg/L		98	90 - 110
Sulfate	10.0	9.83		mg/L		98	90 - 110

**Lab Sample ID: LCSD 400-361746/41**  
**Matrix: Water**  
**Analysis Batch: 361746**

**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	9.74		mg/L		97	90 - 110	0	15
Fluoride	10.0	9.90		mg/L		99	90 - 110	1	15
Sulfate	10.0	9.80		mg/L		98	90 - 110	0	15

**Lab Sample ID: 400-140890-A-15 MS**  
**Matrix: Water**  
**Analysis Batch: 361746**

**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	42000	E	1000	41600	E 4	mg/L		-49	80 - 120
Fluoride	<8.2		1000	1020		mg/L		102	80 - 120
Sulfate	6400	E	1000	7350	E 4	mg/L		99	80 - 120

**Lab Sample ID: 400-140890-A-15 MSD**  
**Matrix: Water**  
**Analysis Batch: 361746**

**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	42000	E	1000	41500	E 4	mg/L		-52	80 - 120	0	20
Fluoride	<8.2		1000	1030		mg/L		103	80 - 120	1	20
Sulfate	6400	E	1000	7360	E 4	mg/L		100	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-362047/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 363171**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 362047**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		07/28/17 10:01	08/05/17 16:59	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		07/28/17 10:01	08/05/17 16:59	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-362047/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 363171**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 362047**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		07/28/17 10:01	08/05/17 16:59	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 16:59	5
Boron	<0.021		0.050	0.021	mg/L		07/28/17 10:01	08/05/17 16:59	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		07/28/17 10:01	08/05/17 16:59	5
Calcium	0.260		0.25	0.13	mg/L		07/28/17 10:01	08/05/17 16:59	5
Chromium	<0.0011		0.0025	0.0011	mg/L		07/28/17 10:01	08/05/17 16:59	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		07/28/17 10:01	08/05/17 16:59	5
Lead	<0.00035		0.0013	0.00035	mg/L		07/28/17 10:01	08/05/17 16:59	5
Lithium	<0.0032		0.0050	0.0032	mg/L		07/28/17 10:01	08/05/17 16:59	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		07/28/17 10:01	08/05/17 16:59	5
Selenium	<0.00024		0.0013	0.00024	mg/L		07/28/17 10:01	08/05/17 16:59	5
Thallium	<0.000085		0.00050	0.000085	mg/L		07/28/17 10:01	08/05/17 16:59	5

**Lab Sample ID: LCS 400-362047/2-A**  
**Matrix: Water**  
**Analysis Batch: 363171**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 362047**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0544		mg/L		109	80 - 120
Arsenic	0.0500	0.0536		mg/L		107	80 - 120
Barium	0.0500	0.0530		mg/L		106	80 - 120
Beryllium	0.0500	0.0510		mg/L		102	80 - 120
Boron	0.100	0.106		mg/L		106	80 - 120
Cadmium	0.0500	0.0548		mg/L		110	80 - 120
Calcium	5.00	4.84		mg/L		97	80 - 120
Chromium	0.0500	0.0482		mg/L		96	80 - 120
Cobalt	0.0500	0.0529		mg/L		106	80 - 120
Lead	0.0500	0.0537		mg/L		107	80 - 120
Lithium	0.0500	0.0550		mg/L		110	80 - 120
Molybdenum	0.100	0.108		mg/L		108	80 - 120
Selenium	0.0500	0.0527		mg/L		105	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120

**Lab Sample ID: 400-140853-A-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 363171**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 362047**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0568		mg/L		114	75 - 125
Arsenic	<0.00046		0.0500	0.0536		mg/L		107	75 - 125
Barium	0.012		0.0500	0.0646		mg/L		106	75 - 125
Beryllium	<0.00034		0.0500	0.0508		mg/L		102	75 - 125
Boron	<0.021		0.100	0.119		mg/L		119	75 - 125
Cadmium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125
Calcium	0.48	B	5.00	5.29		mg/L		96	75 - 125
Chromium	<0.0011		0.0500	0.0491		mg/L		98	75 - 125
Cobalt	<0.00040		0.0500	0.0501		mg/L		100	75 - 125
Lead	<0.00035		0.0500	0.0486		mg/L		97	75 - 125
Lithium	<0.0032		0.0500	0.0543		mg/L		109	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-140853-A-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 363171**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 362047**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.100	0.112		mg/L		112	75 - 125
Selenium	<0.00024		0.0500	0.0560		mg/L		112	75 - 125
Thallium	<0.00085		0.0100	0.0105		mg/L		105	75 - 125

**Lab Sample ID: 400-140853-A-1-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 363171**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 362047**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0550		mg/L		110	75 - 125	3	20
Arsenic	<0.00046		0.0500	0.0538		mg/L		108	75 - 125	0	20
Barium	0.012		0.0500	0.0652		mg/L		107	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0503		mg/L		101	75 - 125	1	20
Boron	<0.021		0.100	0.117		mg/L		117	75 - 125	2	20
Cadmium	<0.00034		0.0500	0.0538		mg/L		108	75 - 125	2	20
Calcium	0.48	B	5.00	5.26		mg/L		96	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0495		mg/L		99	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0499		mg/L		100	75 - 125	0	20
Lead	<0.00035		0.0500	0.0484		mg/L		97	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0532		mg/L		106	75 - 125	2	20
Molybdenum	<0.00085		0.100	0.111		mg/L		111	75 - 125	2	20
Selenium	<0.00024		0.0500	0.0553		mg/L		111	75 - 125	1	20
Thallium	<0.00085		0.0100	0.0102		mg/L		102	75 - 125	3	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-361705/14-A**  
**Matrix: Water**  
**Analysis Batch: 361988**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 361705**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		07/26/17 08:56	07/27/17 14:03	1

**Lab Sample ID: LCS 400-361705/15-A**  
**Matrix: Water**  
**Analysis Batch: 361988**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 361705**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000991		mg/L		98	80 - 120

**Lab Sample ID: 400-140784-C-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 361988**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 361705**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00196		mg/L		97	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
SDG: Gypsum Landfill

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 400-140784-C-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 361988**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 361705**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00191		mg/L		95	80 - 120	2	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-361402/1**  
**Matrix: Water**  
**Analysis Batch: 361402**

**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			07/22/17 15:11	1

**Lab Sample ID: LCS 400-361402/2**  
**Matrix: Water**  
**Analysis Batch: 361402**

**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: 400-140738-E-2 DU**  
**Matrix: Water**  
**Analysis Batch: 361402**

**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	54		54.0		mg/L		0	5

**Lab Sample ID: 400-140784-B-2 DU**  
**Matrix: Water**  
**Analysis Batch: 361402**

**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	380		376		mg/L		0	5

**Lab Sample ID: MB 400-361404/1**  
**Matrix: Water**  
**Analysis Batch: 361404**

**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			07/22/17 15:46	1

**Lab Sample ID: LCS 400-361404/2**  
**Matrix: Water**  
**Analysis Batch: 361404**

**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

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-1  
 SDG: Gypsum Landfill

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: 400-140834-A-2 DU**  
**Matrix: Water**  
**Analysis Batch: 361404**

**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		334		mg/L		0	5

**Lab Sample ID: MB 400-361566/1**  
**Matrix: Water**  
**Analysis Batch: 361566**

**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			07/25/17 14:37	1

**Lab Sample ID: LCS 400-361566/2**  
**Matrix: Water**  
**Analysis Batch: 361566**

**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	256		mg/L		87	78 - 122

**Lab Sample ID: 400-140852-5 DU**  
**Matrix: Water**  
**Analysis Batch: 361566**

**Client Sample ID: GWC-33**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		116		mg/L		0	5

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

# Chain of Custody Record



### Client Information

Client Contact:  
Joju Abraham  
Company:  
Southern Company

Sampler:  
J. Morrison #4, M. Rogers #4

Phone:

Lab PM:  
Whitmore, Cheyenne R.

E-Mail:  
cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s):

COC No:

Page:

Job #:

### Analysis Requested

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Project #:

SSOW #:

Address:  
241 Ralph McGill Blvd SE B10185  
City:  
Atlanta  
State, Zip:  
GA, 30308  
Phone:  
404-506-7239  
Email:  
JAbraham@southernco.com  
Project Name:  
Plant Wansley - Gypsum Landfill  
Site:  
CCR



Field Filtered Sample (Yes or No)  Yes  No  
Perform MS/MSD (Yes or No)  Yes  No  
TDS - SM 2540C : Cl, F, SO4 - EPA 300  
Metals - (Part 257 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:  
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)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9316 & 9320	Total Number of Containers	Special Instructions/Note:
GWA-29	7/18/17	1305	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	3	
DUP-1	7/18/17	-	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	3	
GWC-31	7/19/17	1000	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	2	Well dry before radium sample collected
FERB-1	7/19/17	1020	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	3	
GWC-33	7/19/17	1045	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	2	Well dry before radium bottle full
FB-1	7/19/17	1055	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	3	

### Possible Hazard Identification

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

### Deliverable Requested: I, II, III, IV, Other (specify)

Return To Client  Disposal By Lab  Archive For  Months

### Empty Kit Requisitioned by:

Relinquished by: [Signature] Date: 7/20/17 09:30

### Relinquished by:

Relinquished by: [Signature] Date: 7/20/17 1600

### Relinquished by:

Relinquished by: [Signature] Date: 7/21/17 08:42

### Custody Seals Intact:

Yes  No  Custody Seal No.:

### Relinquished by:

Relinquished by: [Signature] Date: 7/21/17 08:42

### Relinquished by:

Relinquished by: [Signature] Date: 7/20/17 9:30

### Relinquished by:

Relinquished by: [Signature] Date: 7/21/17 08:42

### Relinquished by:

Relinquished by: [Signature] Date: 7/21/17 08:42

### Relinquished by:

Relinquished by: [Signature] Date: 7/21/17 08:42

Cooler Temperature (°C) and Other Remarks: 23 + 10





## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-140852-1  
SDG Number: Gypsum Landfill

**Login Number: 140852**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	2.3°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 Wansley

TestAmerica Job ID: 400-140852-1  
 SDG: Gypsum Landfill

## 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	06-30-18
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	08-31-17
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: 400-140852-2

TestAmerica SDG: Plant Wansley Gypsum Landfill

Client Project/Site: CCR - Plant Wansley

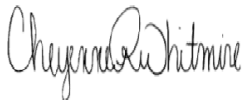
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

8/28/2017 3:09:04 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto: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 Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Job ID: 400-140852-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-140852-2

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-319704. 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. GWA-29 (400-140852-1), DUP-1 (400-140852-2), FERB-1 (400-140852-4), GWC-33 (400-140852-5) and FB-1 (400-140852-6)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-319704. The following sample was reduced due to receiving bottle half full: GWC-33 (400-140852-5).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-319695. 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. GWA-29 (400-140852-1), DUP-1 (400-140852-2), FERB-1 (400-140852-4), GWC-33 (400-140852-5) and FB-1 (400-140852-6)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-319695. The following sample was reduced due to bottle being half filled when received: GWC-33 (400-140852-5).



# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

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 Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-140852-1	GWA-29	Water	07/18/17 13:05	07/21/17 08:42
400-140852-2	DUP-1	Water	07/18/17 00:00	07/21/17 08:42
400-140852-4	FERB-1	Water	07/19/17 10:20	07/21/17 08:42
400-140852-5	GWC-33	Water	07/19/17 10:45	07/21/17 08:42
400-140852-6	FB-1	Water	07/19/17 10:55	07/21/17 08:42

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 07/18/17 13:05**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-1**

**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0720	U	0.0878	0.0880	1.00	0.144	pCi/L	07/28/17 10:45	08/21/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/28/17 10:45	08/21/17 06:01	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0827	U	0.219	0.219	1.00	0.379	pCi/L	07/28/17 13:13	08/18/17 10:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/28/17 13:13	08/18/17 10:19	1
Y Carrier	80.7		40 - 110					07/28/17 13:13	08/18/17 10:19	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.155	U	0.236	0.236	5.00	0.379	pCi/L		08/22/17 15:38	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: DUP-1**

**Date Collected: 07/18/17 00:00**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-2**

**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169		0.106	0.108	1.00	0.138	pCi/L	07/28/17 10:45	08/21/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					07/28/17 10:45	08/21/17 06:01	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.711		0.256	0.264	1.00	0.339	pCi/L	07/28/17 13:13	08/18/17 10:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					07/28/17 13:13	08/18/17 10:19	1
Y Carrier	78.9		40 - 110					07/28/17 13:13	08/18/17 10:19	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.880		0.277	0.285	5.00	0.339	pCi/L		08/22/17 15:38	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: FERB-1**

**Date Collected: 07/19/17 10:20**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-4**

**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	0.0569	U	0.0780	0.0781	1.00	0.131	pCi/L	07/28/17 10:45	08/21/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					07/28/17 10:45	08/21/17 06:01	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.356		0.211	0.213	1.00	0.315	pCi/L	07/28/17 13:13	08/18/17 10:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					07/28/17 13:13	08/18/17 10:19	1
Y Carrier	79.3		40 - 110					07/28/17 13:13	08/18/17 10:19	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.413		0.225	0.227	5.00	0.315	pCi/L		08/22/17 15:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
 SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: GWC-33**  
**Date Collected: 07/19/17 10:45**  
**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-5**  
**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	0.688		0.212	0.221	1.00	0.172	pCi/L	07/28/17 10:45	08/21/17 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/28/17 10:45	08/21/17 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	1.31		0.404	0.421	1.00	0.523	pCi/L	07/28/17 13:13	08/18/17 10:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/28/17 13:13	08/18/17 10:19	1
Y Carrier	80.0		40 - 110					07/28/17 13:13	08/18/17 10:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.00		0.456	0.476	5.00	0.523	pCi/L		08/22/17 15:38	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: FB-1**

**Date Collected: 07/19/17 10:55**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-6**

**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	0.0224	U	0.0626	0.0626	1.00	0.121	pCi/L	07/28/17 10:45	08/21/17 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					07/28/17 10:45	08/21/17 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	0.227	U	0.228	0.229	1.00	0.371	pCi/L	07/28/17 13:13	08/18/17 10:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					07/28/17 13:13	08/18/17 10:19	1
Y Carrier	82.2		40 - 110					07/28/17 13:13	08/18/17 10:19	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.250	U	0.237	0.238	5.00	0.371	pCi/L		08/22/17 15:38	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

## 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 Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: GWA-29**

**Date Collected: 07/18/17 13:05**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			319695	07/28/17 10:45	LDE	TAL SL
Total/NA	Analysis	9315		1	323221	08/21/17 06:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			319704	07/28/17 13:13	LDE	TAL SL
Total/NA	Analysis	9320		1	322960	08/18/17 10:19	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	323540	08/22/17 15:38	RTM	TAL SL

**Client Sample ID: DUP-1**

**Date Collected: 07/18/17 00:00**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			319695	07/28/17 10:45	LDE	TAL SL
Total/NA	Analysis	9315		1	323221	08/21/17 06:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			319704	07/28/17 13:13	LDE	TAL SL
Total/NA	Analysis	9320		1	322960	08/18/17 10:19	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	323540	08/22/17 15:38	RTM	TAL SL

**Client Sample ID: FERB-1**

**Date Collected: 07/19/17 10:20**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			319695	07/28/17 10:45	LDE	TAL SL
Total/NA	Analysis	9315		1	323221	08/21/17 06:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			319704	07/28/17 13:13	LDE	TAL SL
Total/NA	Analysis	9320		1	322960	08/18/17 10:19	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	323540	08/22/17 15:38	RTM	TAL SL

**Client Sample ID: GWC-33**

**Date Collected: 07/19/17 10:45**

**Date Received: 07/21/17 08:42**

**Lab Sample ID: 400-140852-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			319695	07/28/17 10:45	LDE	TAL SL
Total/NA	Analysis	9315		1	323215	08/21/17 06:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			319704	07/28/17 13:13	LDE	TAL SL
Total/NA	Analysis	9320		1	322960	08/18/17 10:19	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	323540	08/22/17 15:38	RTM	TAL SL

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

**Client Sample ID: FB-1**

**Lab Sample ID: 400-140852-6**

**Date Collected: 07/19/17 10:55**

**Matrix: Water**

**Date Received: 07/21/17 08:42**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			319695	07/28/17 10:45	LDE	TAL SL
Total/NA	Analysis	9315		1	323215	08/21/17 06:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			319704	07/28/17 13:13	LDE	TAL SL
Total/NA	Analysis	9320		1	322960	08/18/17 10:19	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	323540	08/22/17 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 Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

## Rad

### Prep Batch: 319695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total/NA	Water	PrecSep-21	
400-140852-2	DUP-1	Total/NA	Water	PrecSep-21	
400-140852-4	FERB-1	Total/NA	Water	PrecSep-21	
400-140852-5	GWC-33	Total/NA	Water	PrecSep-21	
400-140852-6	FB-1	Total/NA	Water	PrecSep-21	
MB 160-319695/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-319695/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-319695/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 319704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140852-1	GWA-29	Total/NA	Water	PrecSep_0	
400-140852-2	DUP-1	Total/NA	Water	PrecSep_0	
400-140852-4	FERB-1	Total/NA	Water	PrecSep_0	
400-140852-5	GWC-33	Total/NA	Water	PrecSep_0	
400-140852-6	FB-1	Total/NA	Water	PrecSep_0	
MB 160-319704/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-319704/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-319704/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-319695/1-A**  
**Matrix: Water**  
**Analysis Batch: 323221**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 319695**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1360		0.0965	0.0972	1.00	0.128	pCi/L	07/28/17 10:45	08/21/17 05:59	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	99.1		40 - 110		07/28/17 10:45	08/21/17 05:59	1			

**Lab Sample ID: LCS 160-319695/2-A**  
**Matrix: Water**  
**Analysis Batch: 323221**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 319695**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	11.29		1.25	1.00	0.154	pCi/L	99	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	93.8		40 - 110		07/28/17 10:45	08/21/17 05:59	1		

**Lab Sample ID: LCSD 160-319695/3-A**  
**Matrix: Water**  
**Analysis Batch: 323221**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 319695**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.4	10.80		1.20	1.00	0.129	pCi/L	95	68 - 137	0.20	1
Carrier	LCSD LCSD		Limits		Prepared	Analyzed	Dil Fac				
Ba Carrier	%Yield	Qualifier	Limits								
Ba Carrier	100		40 - 110		07/28/17 13:13	08/18/17 10:14	1				

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-319704/1-A**  
**Matrix: Water**  
**Analysis Batch: 322959**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 319704**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.6556		0.287	0.293	1.00	0.413	pCi/L	07/28/17 13:13	08/18/17 10:14	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	99.1		40 - 110		07/28/17 13:13	08/18/17 10:14	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	72.5		40 - 110		07/28/17 13:13	08/18/17 10:14	1			

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-319704/2-A**  
**Matrix: Water**  
**Analysis Batch: 322959**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 319704**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.0	17.73		1.88	1.00	0.435	pCi/L	136	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.8		40 - 110
Y Carrier	74.0		40 - 110

**Lab Sample ID: LCSD 160-319704/3-A**  
**Matrix: Water**  
**Analysis Batch: 322959**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 319704**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.0	16.83		1.78	1.00	0.414	pCi/L	129	56 - 140	0.25	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	75.5		40 - 110

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-140712-A-8 DU**  
**Matrix: Water**  
**Analysis Batch: 323540**

**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	0.524		0.6537		0.285	5.00	0.410	pCi/L	0.24	

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

# Chain of Custody Record



### Client Information

Client Contact:  
Joju Abraham  
Company:  
Southern Company

Sampler:  
J. Morrison #4, M. Rogers #4

Phone:

Lab PM:

Whitmore, Cheyenne R.

E-Mail:

cheyenne.whitmore@testamericainc.com

Carrier Tracking No(s):

COC No:

Address:  
241 Ralph McGill Blvd SE B10185

City:  
Atlanta

State, Zip:  
GA, 30308

Phone:  
404-506-7239

Email:  
JAbraham@southernco.com

Project Name:  
Plant Wansley - Gypsum Landfill

Site:  
CCR

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Project #:

SSOW#:

### Analysis Requested

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

TDS - SM 2540C : Cl.F.S04 - EPA 300

Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470

Radium 226 & 228 - SW-846 9316 & 9320

Total Number of Containers

Special Instructions/Note:



Preservation Codes:

- A - HCl
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Amchlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- Other:
- M - Hexane
- N - None
- O - AsNaO2
- P - Na2O4S
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - ph 4-5
- Z - other (specify)

### Sample Identification

GWA-29

DUP-1

GWC-31

FERB-1

GWC-33

FB-1

Sample Date

7/18/17

7/18/17

7/19/17

7/19/17

7/19/17

7/19/17

Sample Time

1305

-

1000

1020

1045

1055

Sample Type (C=comp, G=grab)

G

G

G

G

G

G

Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)

W

W

W

W

W

W

Preservation Code:

D

X

X

X

X

X

### Possible Hazard Identification

Non-Hazard

Flammable

Skin Irritant

Poison B

Unknown

Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Requisitioned by:

Relinquished by:

Relinquished by:

Relinquished by:

Date:

7/17/17 09:30

Date:

7/17/17 1600

Received by:

Received by:

Received by:

Company

Company

Company

Date/Time:

7/17/17 9:30

Date/Time:

7/17/17 08:42

Company

Company

Company

Custody Seal No.:

Δ Yes Δ No

Cooler Temperature (°C and Other Remarks):

23 ± 0.2



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-140852-2

SDG Number: Plant Wansley Gypsum Landfill

**Login Number: 140852**

**List Number: 1**

**Creator: Hughes, Nicholas T**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	2.3°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 Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

## 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	06-30-18
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	08-31-17
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	06-30-18
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.

# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-140852-2  
SDG: Plant Wansley Gypsum Landfill

## 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	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
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: 400-141402-1

TestAmerica SDG: Gypsum Landfill + State Permit

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

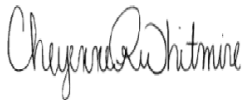
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

8/29/2017 4:52:48 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

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[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

**Job ID: 400-141402-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-141402-1

#### Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 363937 and analytical batch 365481 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 365481 recovered above the upper control limit for Cobalt. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: FB-1 (400-141402-1), GWA-29 (400-141402-2), GWA-28 (400-141402-3), GWA-3 (400-141402-4), DUP-1 (400-141402-5), SWA-1 (400-141402-6), SWA-6 (400-141402-7), SWC-7 (400-141402-8) and (MB 400-363937/1-A ^5).

Method(s) 6020: The laboratory control sample (LCS) for preparation batch 363937 and analytical batch 365481 recovered outside control limits for the following analytes:Cobalt. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Client Sample ID: FB-1

## Lab Sample ID: 400-141402-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00039	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	3.2		2.5	1.4	ug/L	5		6020	Total Recoverable

## Client Sample ID: GWA-29

## Lab Sample ID: 400-141402-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	7.7		1.0	0.70	mg/L	1		300.0	Total/NA
Copper	0.0044		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Nickel	0.0018	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.0011	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00098	J	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Beryllium	0.0019	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Vanadium	0.0041		0.0025	0.0014	mg/L	5		6020	Total Recoverable
Zinc	0.028		0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	3.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0015	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.038		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0026	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00036	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: GWA-28

## Lab Sample ID: 400-141402-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00059	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00040	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWA-3

## Lab Sample ID: 400-141402-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	72		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00028	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 Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Client Sample ID: DUP-1

## Lab Sample ID: 400-141402-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	7.7		1.0	0.70	mg/L	1		300.0	Total/NA
Copper	0.0049		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Nickel	0.0019	J	0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.00096	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00087	J	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Beryllium	0.0019	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Zinc	0.029		0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	3.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.039		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0020	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: SWA-1

## Lab Sample ID: 400-141402-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: SWA-6

## Lab Sample ID: 400-141402-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: SWC-7

## Lab Sample ID: 400-141402-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0012	J	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Selenium	0.00048	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

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 Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-141402-1	FB-1	Water	07/31/17 07:20	08/03/17 09:51
400-141402-2	GWA-29	Water	08/01/17 11:40	08/03/17 09:51
400-141402-3	GWA-28	Water	08/01/17 14:45	08/03/17 09:51
400-141402-4	GWA-3	Water	08/01/17 15:11	08/03/17 09:51
400-141402-5	DUP-1	Water	08/01/17 00:00	08/03/17 09:51
400-141402-6	SWA-1	Water	08/01/17 11:08	08/03/17 09:51
400-141402-7	SWA-6	Water	08/01/17 11:54	08/03/17 09:51
400-141402-8	SWC-7	Water	08/01/17 12:56	08/03/17 09:51

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: FB-1**  
**Date Collected: 07/31/17 07:20**  
**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-1**  
**Matrix: Water**

**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		08/12/17 11:52	08/23/17 15:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 15:05	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 15:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 15:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 15:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 15:05	5
Cobalt	<0.00040	^ *	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 15:05	5
Copper	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 15:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 15:05	5
Nickel	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 15:05	5
<b>Selenium</b>	<b>0.00039</b>	<b>J</b>	0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 15:05	5
Silver	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 15:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 15:05	5
<b>Vanadium</b>	<b>3.2</b>		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 15:05	5
Zinc	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 15:05	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		08/11/17 10:35	08/15/17 09:47	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-29**

**Date Collected: 08/01/17 11:40**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-2**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.3		1.0	0.89	mg/L			08/09/17 03:24	1
Fluoride	2.5		0.20	0.082	mg/L			08/09/17 03:24	1
Sulfate	7.7		1.0	0.70	mg/L			08/09/17 03:24	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		08/12/17 11:52	08/23/17 22:15	5
Copper	0.0044		0.0025	0.0021	mg/L		08/12/17 11:52	08/23/17 22:15	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:15	5
Nickel	0.0018	J	0.0025	0.0018	mg/L		08/12/17 11:52	08/23/17 22:15	5
Barium	0.0011	J	0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:15	5
Silver	0.00098	J	0.0013	0.00011	mg/L		08/12/17 11:52	08/23/17 22:15	5
Beryllium	0.0019	J	0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:15	5
Vanadium	0.0041		0.0025	0.0014	mg/L		08/12/17 11:52	08/23/17 22:15	5
Boron	<0.021		0.050	0.021	mg/L		08/12/17 11:52	08/23/17 22:15	5
Zinc	0.028		0.020	0.0065	mg/L		08/12/17 11:52	08/23/17 22:15	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:15	5
Calcium	3.8		0.25	0.13	mg/L		08/12/17 11:52	08/23/17 22:15	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:15	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:15	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:15	5
Lithium	0.038		0.0050	0.0032	mg/L		08/12/17 11:52	08/23/17 22:15	5
Molybdenum	0.0026	J	0.015	0.00085	mg/L		08/12/17 11:52	08/23/17 22:15	5
Selenium	0.00036	J	0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:15	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:15	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		08/11/17 10:35	08/15/17 09:48	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			08/05/17 17:08	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-28**

**Date Collected: 08/01/17 14:45**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-3**

**Matrix: Water**

**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		08/12/17 11:52	08/23/17 22:20	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:20	5
<b>Barium</b>	<b>0.00059</b>	<b>J</b>	0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:20	5
<b>Beryllium</b>	<b>0.00040</b>	<b>J</b>	0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:20	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:20	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:20	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:20	5
Copper	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 22:20	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:20	5
Nickel	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 22:20	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:20	5
Silver	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 22:20	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:20	5
Vanadium	<1.4		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 22:20	5
Zinc	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 22:20	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		08/11/17 10:35	08/15/17 09:50	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-3**  
**Date Collected: 08/01/17 15:11**  
**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-4**  
**Matrix: Water**

**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		08/12/17 11:52	08/23/17 22:24	5
Copper	<0.0021		0.0025	0.0021	mg/L		08/12/17 11:52	08/23/17 22:24	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:24	5
Nickel	<0.0018		0.0025	0.0018	mg/L		08/12/17 11:52	08/23/17 22:24	5
<b>Barium</b>	<b>0.030</b>		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:24	5
Silver	<0.00011		0.0013	0.00011	mg/L		08/12/17 11:52	08/23/17 22:24	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:24	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		08/12/17 11:52	08/23/17 22:24	5
Boron	<0.021		0.050	0.021	mg/L		08/12/17 11:52	08/23/17 22:24	5
Zinc	<0.0065		0.020	0.0065	mg/L		08/12/17 11:52	08/23/17 22:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:24	5
<b>Calcium</b>	<b>72</b>		0.25	0.13	mg/L		08/12/17 11:52	08/23/17 22:24	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:24	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:24	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:24	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/12/17 11:52	08/23/17 22:24	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/12/17 11:52	08/23/17 22:24	5
<b>Selenium</b>	<b>0.00028</b>	<b>J</b>	0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:24	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:24	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		08/11/17 10:35	08/15/17 09:52	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: DUP-1**

**Date Collected: 08/01/17 00:00**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-5**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0	0.89	mg/L			08/09/17 03:47	1
Fluoride	2.6		0.20	0.082	mg/L			08/09/17 03:47	1
Sulfate	7.7		1.0	0.70	mg/L			08/09/17 03:47	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		08/12/17 11:52	08/23/17 22:29	5
Copper	0.0049		0.0025	0.0021	mg/L		08/12/17 11:52	08/23/17 22:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:29	5
Nickel	0.0019	J	0.0025	0.0018	mg/L		08/12/17 11:52	08/23/17 22:29	5
Barium	0.00096	J	0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:29	5
Silver	0.00087	J	0.0013	0.00011	mg/L		08/12/17 11:52	08/23/17 22:29	5
Beryllium	0.0019	J	0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:29	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		08/12/17 11:52	08/23/17 22:29	5
Boron	<0.021		0.050	0.021	mg/L		08/12/17 11:52	08/23/17 22:29	5
Zinc	0.029		0.020	0.0065	mg/L		08/12/17 11:52	08/23/17 22:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:29	5
Calcium	3.7		0.25	0.13	mg/L		08/12/17 11:52	08/23/17 22:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:29	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:29	5
Lithium	0.039		0.0050	0.0032	mg/L		08/12/17 11:52	08/23/17 22:29	5
Molybdenum	0.0020	J	0.015	0.00085	mg/L		08/12/17 11:52	08/23/17 22:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:29	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		08/11/17 10:35	08/15/17 09:53	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			08/05/17 17:08	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: SWA-1**

**Date Collected: 08/01/17 11:08**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-6**

**Matrix: Water**

**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		08/12/17 11:52	08/23/17 22:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:33	5
<b>Barium</b>	<b>0.013</b>		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:33	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:33	5
Copper	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 22:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:33	5
Nickel	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 22:33	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:33	5
Silver	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 22:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:33	5
Vanadium	<1.4		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 22:33	5
Zinc	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 22:33	5

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/17 10:35	08/15/17 09:55	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: SWA-6**  
**Date Collected: 08/01/17 11:54**  
**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-7**  
**Matrix: Water**

**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		08/12/17 11:52	08/23/17 22:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:38	5
<b>Barium</b>	<b>0.029</b>		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:38	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:38	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:38	5
Copper	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 22:38	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:38	5
Nickel	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 22:38	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:38	5
Silver	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 22:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:38	5
Vanadium	<1.4		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 22:38	5
Zinc	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 22:38	5

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/17 10:35	08/15/17 09:57	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: SWC-7**  
**Date Collected: 08/01/17 12:56**  
**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-8**  
**Matrix: Water**

**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		08/12/17 11:52	08/23/17 22:42	5
<b>Arsenic</b>	<b>0.0012</b>	<b>J</b>	0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 22:42	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 22:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 22:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 22:42	5
Cobalt	<0.00040	* ^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 22:42	5
Copper	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 22:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 22:42	5
Nickel	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 22:42	5
<b>Selenium</b>	<b>0.00048</b>	<b>J</b>	0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 22:42	5
Silver	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 22:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 22:42	5
Vanadium	<1.4		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 22:42	5
Zinc	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 22:42	5

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/17 10:35	08/15/17 09:59	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## 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.
E	Result exceeded calibration range.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
*	LCS or LCSD 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 Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: FB-1**

**Date Collected: 07/31/17 07:20**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 15:05	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:47	JAP	TAL PEN

**Client Sample ID: GWA-29**

**Date Collected: 08/01/17 11:40**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	363489	08/09/17 03:24	TAJ	TAL PEN
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:15	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	363120	08/05/17 17:08	TET	TAL PEN

**Client Sample ID: GWA-28**

**Date Collected: 08/01/17 14:45**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:20	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:50	JAP	TAL PEN

**Client Sample ID: GWA-3**

**Date Collected: 08/01/17 15:11**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:24	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:52	JAP	TAL PEN

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: DUP-1**

**Date Collected: 08/01/17 00:00**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	363489	08/09/17 03:47	TAJ	TAL PEN
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:29	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	363120	08/05/17 17:08	TET	TAL PEN

**Client Sample ID: SWA-1**

**Date Collected: 08/01/17 11:08**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:33	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:55	JAP	TAL PEN

**Client Sample ID: SWA-6**

**Date Collected: 08/01/17 11:54**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:38	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:57	JAP	TAL PEN

**Client Sample ID: SWC-7**

**Date Collected: 08/01/17 12:56**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			363937	08/12/17 11:52	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365481	08/23/17 22:42	DRE	TAL PEN
Total/NA	Prep	7470A			363372	08/11/17 10:35	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 09:59	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 Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## HPLC/IC

### Analysis Batch: 363489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-2	GWA-29	Total/NA	Water	300.0	
400-141402-5	DUP-1	Total/NA	Water	300.0	
MB 400-363489/34	Method Blank	Total/NA	Water	300.0	
LCS 400-363489/35	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-363489/36	Lab Control Sample Dup	Total/NA	Water	300.0	
400-141371-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-141371-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 363372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-1	FB-1	Total/NA	Water	7470A	
400-141402-2	GWA-29	Total/NA	Water	7470A	
400-141402-3	GWA-28	Total/NA	Water	7470A	
400-141402-4	GWA-3	Total/NA	Water	7470A	
400-141402-5	DUP-1	Total/NA	Water	7470A	
400-141402-6	SWA-1	Total/NA	Water	7470A	
400-141402-7	SWA-6	Total/NA	Water	7470A	
400-141402-8	SWC-7	Total/NA	Water	7470A	
MB 400-363372/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-363372/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-141391-G-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-141391-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 363937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-1	FB-1	Total Recoverable	Water	3005A	
400-141402-2	GWA-29	Total Recoverable	Water	3005A	
400-141402-3	GWA-28	Total Recoverable	Water	3005A	
400-141402-4	GWA-3	Total Recoverable	Water	3005A	
400-141402-5	DUP-1	Total Recoverable	Water	3005A	
400-141402-6	SWA-1	Total Recoverable	Water	3005A	
400-141402-7	SWA-6	Total Recoverable	Water	3005A	
400-141402-8	SWC-7	Total Recoverable	Water	3005A	
MB 400-363937/1-A ^5 - RA	Method Blank	Total Recoverable	Water	3005A	
MB 400-363937/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-363937/2-A - RA	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-363937/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-141359-A-3-D MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-141359-A-3-E MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 364287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-1	FB-1	Total/NA	Water	7470A	363372
400-141402-2	GWA-29	Total/NA	Water	7470A	363372
400-141402-3	GWA-28	Total/NA	Water	7470A	363372
400-141402-4	GWA-3	Total/NA	Water	7470A	363372
400-141402-5	DUP-1	Total/NA	Water	7470A	363372
400-141402-6	SWA-1	Total/NA	Water	7470A	363372

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Metals (Continued)

### Analysis Batch: 364287 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-7	SWA-6	Total/NA	Water	7470A	363372
400-141402-8	SWC-7	Total/NA	Water	7470A	363372
MB 400-363372/14-A	Method Blank	Total/NA	Water	7470A	363372
LCS 400-363372/15-A	Lab Control Sample	Total/NA	Water	7470A	363372
400-141391-G-1-B MS	Matrix Spike	Total/NA	Water	7470A	363372
400-141391-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	363372

### Analysis Batch: 365481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-1	FB-1	Total Recoverable	Water	6020	363937
400-141402-2	GWA-29	Total Recoverable	Water	6020	363937
400-141402-3	GWA-28	Total Recoverable	Water	6020	363937
400-141402-4	GWA-3	Total Recoverable	Water	6020	363937
400-141402-5	DUP-1	Total Recoverable	Water	6020	363937
400-141402-6	SWA-1	Total Recoverable	Water	6020	363937
400-141402-7	SWA-6	Total Recoverable	Water	6020	363937
400-141402-8	SWC-7	Total Recoverable	Water	6020	363937
MB 400-363937/1-A ^5	Method Blank	Total Recoverable	Water	6020	363937
MB 400-363937/1-A ^5 - RA	Method Blank	Total Recoverable	Water	6020	363937
LCS 400-363937/2-A	Lab Control Sample	Total Recoverable	Water	6020	363937
LCS 400-363937/2-A - RA	Lab Control Sample	Total Recoverable	Water	6020	363937
400-141359-A-3-D MS ^5	Matrix Spike	Total Recoverable	Water	6020	363937
400-141359-A-3-E MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	363937

## General Chemistry

### Analysis Batch: 363120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-2	GWA-29	Total/NA	Water	SM 2540C	
400-141402-5	DUP-1	Total/NA	Water	SM 2540C	
MB 400-363120/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-363120/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-141391-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-363489/34**  
**Matrix: Water**  
**Analysis Batch: 363489**

**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			08/08/17 22:50	1
Fluoride	<0.082		0.20	0.082	mg/L			08/08/17 22:50	1
Sulfate	<0.70		1.0	0.70	mg/L			08/08/17 22:50	1

**Lab Sample ID: LCS 400-363489/35**  
**Matrix: Water**  
**Analysis Batch: 363489**

**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	9.78		mg/L		98	90 - 110
Fluoride	10.0	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-363489/36**  
**Matrix: Water**  
**Analysis Batch: 363489**

**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	9.82		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	1	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	0	15

**Lab Sample ID: 400-141371-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 363489**

**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	<0.89		10.0	9.93		mg/L		99	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	<0.70		10.0	10.3		mg/L		103	80 - 120

**Lab Sample ID: 400-141371-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 363489**

**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	<0.89		10.0	9.90		mg/L		99	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	1	20
Sulfate	<0.70		10.0	10.2		mg/L		102	80 - 120	1	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-363937/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/12/17 11:52	08/23/17 14:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 14:42	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-363937/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 14:42	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 14:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 14:42	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 14:42	5
Copper	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 14:42	5
Cobalt	<0.00040	^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 14:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 14:42	5
Nickel	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 14:42	5
Silver	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 14:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 14:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 14:42	5
Vanadium	<1.4		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 14:42	5
Zinc	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 14:42	5

**Lab Sample ID: LCS 400-363937/2-A**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0557		mg/L		111	80 - 120
Arsenic	0.0500	0.0523		mg/L		105	80 - 120
Barium	0.0500	0.0534		mg/L		107	80 - 120
Beryllium	0.0500	0.0510		mg/L		102	80 - 120
Cadmium	0.0500	0.0529		mg/L		106	80 - 120
Chromium	0.0500	0.0502		mg/L		100	80 - 120
Copper	50.0	49.5		ug/L		99	80 - 120
Cobalt	0.0500	0.0628	^ *	mg/L		126	80 - 120
Lead	0.0500	0.0517		mg/L		103	80 - 120
Nickel	50.0	52.3		ug/L		105	80 - 120
Silver	50.0	51.5		ug/L		103	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120
Vanadium	50.0	52.5		ug/L		105	80 - 120
Zinc	50.0	55.3		ug/L		111	80 - 120

**Lab Sample ID: 400-141359-A-3-D MS ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010	F1	0.0500	0.0118	F1	mg/L		24	75 - 125
Arsenic	0.0083	F1	0.0500	0.0422	F1	mg/L		68	75 - 125
Barium	0.56		0.0500	0.631	4	mg/L		134	75 - 125
Beryllium	0.0025		0.0500	0.0537		mg/L		102	75 - 125
Boron	<0.021		0.100	0.103		mg/L		103	75 - 125
Cadmium	0.00050	J	0.0500	0.0532		mg/L		105	75 - 125
Calcium	140	E	5.00	145	E 4	mg/L		123	75 - 125
Chromium	0.093		0.0500	0.144		mg/L		101	75 - 125
Copper	47		50.0	95.0		ug/L		97	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-141359-A-3-D MS ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limit	%Rec. Limits
Cobalt	0.098	* ^	0.0500	0.150	^	mg/L		104	75 - 125	
Lead	0.089		0.0500	0.141		mg/L		102	75 - 125	
Nickel	170		50.0	230		ug/L		114	75 - 125	
Lithium	0.038		0.0500	0.0914		mg/L		108	75 - 125	
Molybdenum	0.029	F1	0.100	0.0924	F1	mg/L		64	75 - 125	
Silver	0.30	J	50.0	50.6		ug/L		101	75 - 125	
Selenium	0.0034	F1	0.0500	0.0284	F1	mg/L		50	75 - 125	
Thallium	0.0010		0.0100	0.0114		mg/L		104	75 - 125	
Vanadium	130		50.0	178		ug/L		105	75 - 125	
Zinc	320		50.0	375	4	ug/L		116	75 - 125	

**Lab Sample ID: 400-141359-A-3-E MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limit	%Rec. Limits	RPD	Limit
Antimony	<0.0010	F1	0.0500	0.0118	F1	mg/L		24	75 - 125		0	20
Arsenic	0.0083	F1	0.0500	0.0425	F1	mg/L		69	75 - 125		1	20
Barium	0.56		0.0500	0.636	4	mg/L		144	75 - 125		1	20
Beryllium	0.0025		0.0500	0.0536		mg/L		102	75 - 125		0	20
Boron	<0.021		0.100	0.102		mg/L		102	75 - 125		0	20
Cadmium	0.00050	J	0.0500	0.0548		mg/L		109	75 - 125		3	20
Calcium	140	E	5.00	145	E 4	mg/L		127	75 - 125		0	20
Chromium	0.093		0.0500	0.145		mg/L		104	75 - 125		1	20
Copper	47		50.0	95.3		ug/L		97	75 - 125		0	20
Cobalt	0.098	* ^	0.0500	0.151	^	mg/L		106	75 - 125		1	20
Lead	0.089		0.0500	0.142		mg/L		105	75 - 125		1	20
Nickel	170		50.0	229		ug/L		112	75 - 125		0	20
Lithium	0.038		0.0500	0.0915		mg/L		108	75 - 125		0	20
Molybdenum	0.029	F1	0.100	0.0937	F1	mg/L		65	75 - 125		1	20
Silver	0.30	J	50.0	51.9		ug/L		103	75 - 125		3	20
Selenium	0.0034	F1	0.0500	0.0280	F1	mg/L		49	75 - 125		1	20
Thallium	0.0010		0.0100	0.0113		mg/L		103	75 - 125		1	20
Vanadium	130		50.0	181		ug/L		110	75 - 125		1	20
Zinc	320		50.0	379	4	ug/L		124	75 - 125		1	20

## Method: 6020 - Metals (ICP/MS) - RA

**Lab Sample ID: MB 400-363937/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony - RA	<0.0010		0.0025	0.0010	mg/L		08/12/17 11:52	08/23/17 21:39	5
Arsenic - RA	<0.00046		0.0013	0.00046	mg/L		08/12/17 11:52	08/23/17 21:39	5
Barium - RA	<0.00049		0.0025	0.00049	mg/L		08/12/17 11:52	08/23/17 21:39	5
Beryllium - RA	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 21:39	5
Boron - RA	<0.021		0.050	0.021	mg/L		08/12/17 11:52	08/23/17 21:39	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) - RA (Continued)

**Lab Sample ID: MB 400-363937/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium - RA	<0.00034		0.0025	0.00034	mg/L		08/12/17 11:52	08/23/17 21:39	5
Calcium - RA	<0.13		0.25	0.13	mg/L		08/12/17 11:52	08/23/17 21:39	5
Chromium - RA	<0.0011		0.0025	0.0011	mg/L		08/12/17 11:52	08/23/17 21:39	5
Copper - RA	<2.1		2.5	2.1	ug/L		08/12/17 11:52	08/23/17 21:39	5
Cobalt - RA	<0.00040	^	0.0025	0.00040	mg/L		08/12/17 11:52	08/23/17 21:39	5
Lead - RA	<0.00035		0.0013	0.00035	mg/L		08/12/17 11:52	08/23/17 21:39	5
Nickel - RA	<1.8		2.5	1.8	ug/L		08/12/17 11:52	08/23/17 21:39	5
Lithium - RA	<0.0032		0.0050	0.0032	mg/L		08/12/17 11:52	08/23/17 21:39	5
Molybdenum - RA	<0.00085		0.015	0.00085	mg/L		08/12/17 11:52	08/23/17 21:39	5
Silver - RA	<0.11		1.3	0.11	ug/L		08/12/17 11:52	08/23/17 21:39	5
Selenium - RA	<0.00024		0.0013	0.00024	mg/L		08/12/17 11:52	08/23/17 21:39	5
Thallium - RA	<0.000085		0.00050	0.000085	mg/L		08/12/17 11:52	08/23/17 21:39	5
Vanadium - RA	<1.4		2.5	1.4	ug/L		08/12/17 11:52	08/23/17 21:39	5
Zinc - RA	<6.5		20	6.5	ug/L		08/12/17 11:52	08/23/17 21:39	5

**Lab Sample ID: LCS 400-363937/2-A**  
**Matrix: Water**  
**Analysis Batch: 365481**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 363937**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony - RA	0.0500	0.0542		mg/L		108	80 - 120
Arsenic - RA	0.0500	0.0519		mg/L		104	80 - 120
Barium - RA	0.0500	0.0515		mg/L		103	80 - 120
Beryllium - RA	0.0500	0.0516		mg/L		103	80 - 120
Boron - RA	0.100	0.105		mg/L		105	80 - 120
Cadmium - RA	0.0500	0.0542		mg/L		108	80 - 120
Calcium - RA	5.00	4.88		mg/L		98	80 - 120
Chromium - RA	0.0500	0.0506		mg/L		101	80 - 120
Copper - RA	50.0	49.6		ug/L		99	80 - 120
Cobalt - RA	0.0500	0.0634	* ^	mg/L		127	80 - 120
Lead - RA	0.0500	0.0523		mg/L		105	80 - 120
Nickel - RA	50.0	52.8		ug/L		106	80 - 120
Lithium - RA	0.0500	0.0579		mg/L		116	80 - 120
Molybdenum - RA	0.100	0.106		mg/L		106	80 - 120
Silver - RA	50.0	53.5		ug/L		107	80 - 120
Selenium - RA	0.0500	0.0528		mg/L		106	80 - 120
Thallium - RA	0.0100	0.0105		mg/L		105	80 - 120
Vanadium - RA	50.0	52.1		ug/L		104	80 - 120
Zinc - RA	50.0	56.6		ug/L		113	80 - 120

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-363372/14-A**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 363372**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/11/17 10:35	08/15/17 09:43	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-1  
SDG: Gypsum Landfill + State Permit

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 400-363372/15-A**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363372**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000962		mg/L		95	80 - 120

**Lab Sample ID: 400-141391-G-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 363372**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00180		mg/L		89	80 - 120

**Lab Sample ID: 400-141391-G-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 363372**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00187		mg/L		93	80 - 120	4	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-363120/1**  
**Matrix: Water**  
**Analysis Batch: 363120**

**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			08/05/17 17:08	1

**Lab Sample ID: LCS 400-363120/2**  
**Matrix: Water**  
**Analysis Batch: 363120**

**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: 400-141391-D-1 DU**  
**Matrix: Water**  
**Analysis Batch: 363120**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	280		278		mg/L		0.7	5

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

### Chain of Custody Record

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: C. Hurdle @, H. Thomas Jr, P. Harold Ph, A. Ellis #RE  
 Lab PM: Whitmire, Cheyenne R  
 Client Contact: Joju Abraham  
 Phone: cheyenne.whitmire@testamericainc.com  
 E-Mail: cheyenne.whitmire@testamericainc.com

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: Plant Wansley - Gypsum Landfill  
 Site: CCR+ State Permit

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WC #:  
 Project #:  
 SSW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Sealed, O-wasteb, 1st-Tissue, Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
								Metals (PART 257 APPM+IV)	Metals (PART 257 APPM+IV)		
FB-1	7/31/17	0720	G	W		X	X	Metals (PART 257 APPM+IV)		1	
GWA-29	8/1/17	1140	G	W		X	X	Metals (PART 257 APPM+IV)		3	
GWA-28	8/1/17	1445	G	W		X	X	Metals (PART 257 APPM+IV)		1	
GWA-3	8/1/17	1511	G	W		X	X	Metals (PART 257 APPM+IV)		1	
DUP-1	8/1/17	-	G	W		X	X	Metals (PART 257 APPM+IV)		3	
SWA-1	8/1/17	1108	G	W		X	X	Metals (PART 257 APPM+IV)		1	
SWA-6	8/1/17	1154	G	W		X	X	Metals (PART 257 APPM+IV)		1	
SWC-7	8/1/17	1256	G	W		X	X	Metals (PART 257 APPM+IV)		1	

**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: *Anthony Blalock* Date: 08-07-2017 13:10 Company: ERM  
 Relinquished by: *STF* Date: 8/2/17 1730 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 2.4°C JRE2





## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-141402-1  
SDG Number: Gypsum Landfill + State Permit

**Login Number: 141402**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	2.4°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").	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 Wansley

TestAmerica Job ID: 400-141402-1  
 SDG: Gypsum Landfill + State Permit

## 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	06-30-18
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	08-31-17
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: 400-141402-2

TestAmerica SDG: Gypsum Landfill + State Permit

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

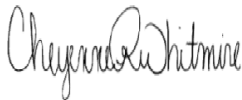
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

8/29/2017 4:59:31 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
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Have a Question?



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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

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 Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-141402-2	GWA-29	Water	08/01/17 11:40	08/03/17 09:51
400-141402-5	DUP-1	Water	08/01/17 00:00	08/03/17 09:51

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-2  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-29**  
**Date Collected: 08/01/17 11:40**  
**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-2**  
**Matrix: Water**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0851		0.0548	0.0553	1.00	0.0687	pCi/L	08/07/17 09:15	08/29/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/07/17 09:15	08/29/17 11:00	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.237	U	0.213	0.214	1.00	0.341	pCi/L	08/07/17 10:02	08/16/17 15:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/07/17 10:02	08/16/17 15:18	1
Y Carrier	90.5		40 - 110					08/07/17 10:02	08/16/17 15:18	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.322	U	0.220	0.221	5.00	0.341	pCi/L		08/29/17 15:15	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: DUP-1**

**Date Collected: 08/01/17 00:00**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-5**

**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	0.0794	U	0.0598	0.0603	1.00	0.0840	pCi/L	08/07/17 09:15	08/29/17 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					08/07/17 09:15	08/29/17 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	0.117	U	0.230	0.231	1.00	0.393	pCi/L	08/07/17 10:02	08/16/17 15:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					08/07/17 10:02	08/16/17 15:18	1
Y Carrier	88.2		40 - 110					08/07/17 10:02	08/16/17 15:18	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.196	U	0.238	0.238	5.00	0.393	pCi/L		08/29/17 15:15	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

## 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 Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-29**

**Date Collected: 08/01/17 11:40**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			321178	08/07/17 09:15	LDE	TAL SL
Total/NA	Analysis	9315		1	324784	08/29/17 11:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			321197	08/07/17 10:02	LDE	TAL SL
Total/NA	Analysis	9320		1	322486	08/16/17 15:18	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	324975	08/29/17 15:15	RTM	TAL SL

**Client Sample ID: DUP-1**

**Date Collected: 08/01/17 00:00**

**Date Received: 08/03/17 09:51**

**Lab Sample ID: 400-141402-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			321178	08/07/17 09:15	LDE	TAL SL
Total/NA	Analysis	9315		1	324784	08/29/17 11:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			321197	08/07/17 10:02	LDE	TAL SL
Total/NA	Analysis	9320		1	322486	08/16/17 15:18	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	324975	08/29/17 15:15	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 Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

## Rad

### Prep Batch: 321178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-2	GWA-29	Total/NA	Water	PrecSep-21	
400-141402-5	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-321178/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-321178/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-132096-C-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 321197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141402-2	GWA-29	Total/NA	Water	PrecSep_0	
400-141402-5	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-321197/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-321197/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-132096-C-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-321178/1-A**  
**Matrix: Water**  
**Analysis Batch: 324783**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 321178**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.003994	U	0.0442	0.0442	1.00	0.0942	pCi/L	08/07/17 09:15	08/29/17 10:53	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	110		40 - 110		08/07/17 09:15	08/29/17 10:53	1			

**Lab Sample ID: LCS 160-321178/2-A**  
**Matrix: Water**  
**Analysis Batch: 324783**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 321178**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	12.8	11.66		1.22	1.00	0.109	pCi/L	91	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	109		40 - 110		08/07/17 09:15	08/29/17 10:53	1		

**Lab Sample ID: 500-132096-C-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 324784**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 321178**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.152		0.1328		0.0719	1.00	0.0865	pCi/L	0.13	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	101		40 - 110		08/07/17 10:02	08/16/17 15:16	1			

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-321197/1-A**  
**Matrix: Water**  
**Analysis Batch: 322486**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 321197**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.08088	U	0.232	0.232	1.00	0.405	pCi/L	08/07/17 10:02	08/16/17 15:16	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	110		40 - 110		08/07/17 10:02	08/16/17 15:16	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	90.5		40 - 110		08/07/17 10:02	08/16/17 15:16	1			

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-2  
 SDG: Gypsum Landfill + State Permit

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-321197/2-A**  
**Matrix: Water**  
**Analysis Batch: 322486**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 321197**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.4	16.66		1.80	1.00	0.368	pCi/L	96	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	109		40 - 110
Y Carrier	87.5		40 - 110

**Lab Sample ID: 500-132096-C-1-B DU**  
**Matrix: Water**  
**Analysis Batch: 322486**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 321197**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.262	U	0.2978	U	0.212	1.00	0.324	pCi/L	0.08	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	86.7		40 - 110

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

### Chain of Custody Record

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: C. Hurdle @, H. Thomas Jr, P. Harold Ph, A. Ellis #RE  
 Lab PM: Whitmire, Cheyenne R  
 Client Contact: Joju Abraham  
 Phone: cheyenne.whitmire@testamericainc.com  
 E-Mail: cheyenne.whitmire@testamericainc.com

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: Plant Wansley - Gypsum Landfill  
 Site: CCR+ State Permit

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSO#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Sealed, On-wastebottom, ST-Tissue, As-Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested		Total Number of Containers	Special Instructions/Note:
								Metals (PART 257 APPM+IV)	Metals (PART 257 APPM+IV)		
FB-1	7/31/17	0720	G	W		X	X			1	
GWA-29	8/1/17	1140	G	W		X	X			3	
GWA-28	8/1/17	1445	G	W		X	X			1	
GWA-3	8/1/17	1511	G	W		X	X			1	
DUP-1	8/1/17	-	G	W		X	X			3	
SWA-1	8/1/17	1108	G	W		X	X			1	
SWA-6	8/1/17	1154	G	W		X	X			1	
SWC-7	8/1/17	1256	G	W		X	X			1	

**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: *Anthony Blalock* Date: 08-07-2017 13:10 Company: ERM  
 Relinquished by: *STF* Date: 8/2/17 13:10 Company: ERM  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 2.4°C JRE2



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-141402-2  
SDG Number: Gypsum Landfill + State Permit

**Login Number: 141402**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	2.4°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").	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 Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

## 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	06-30-18
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	08-31-17
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	06-30-18
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.



# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141402-2  
SDG: Gypsum Landfill + State Permit

## 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	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
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

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: 400-141500-1

TestAmerica SDG: Gypsum Landfill + State Permit

Client Project/Site: CCR - Plant Wansley


For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

8/28/2017 3:37:21 PM

Cheyenne Whitmire, Project Manager II

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### LINKS

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[www.testamericainc.com](http://www.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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# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Client Sample ID: GWA-2

## Lab Sample ID: 400-141500-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWA-4

## Lab Sample ID: 400-141500-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.15		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0050		0.0025	0.00040	mg/L	5		6020	Total Recoverable

## Client Sample ID: FERB-1

## Lab Sample ID: 400-141500-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00076	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

## Client Sample ID: FB-2

## Lab Sample ID: 400-141500-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00029	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWA-1

## Lab Sample ID: 400-141500-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0099		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-5

## Lab Sample ID: 400-141500-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0061		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	8.8		2.5	1.8	ug/L	5		6020	Total Recoverable
Vanadium	3.1		2.5	1.4	ug/L	5		6020	Total Recoverable

## Client Sample ID: GWC-6

## Lab Sample ID: 400-141500-7

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
Cobalt	0.014		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	5.1		2.5	1.8	ug/L	5		6020	Total Recoverable

## Client Sample ID: GWC-25

## Lab Sample ID: 400-141500-8

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Client Sample ID: GWC-25 (Continued)

## Lab Sample ID: 400-141500-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.00041	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-26

## Lab Sample ID: 400-141500-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-27

## Lab Sample ID: 400-141500-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0050		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0024	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Thallium	0.00016	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-32

## Lab Sample ID: 400-141500-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0022	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0018	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Chromium	0.0053		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00045	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	1.8	J	2.5	1.8	ug/L	5		6020	Total Recoverable
Zinc	59		20	6.5	ug/L	5		6020	Total Recoverable

## Client Sample ID: GWC-34

## Lab Sample ID: 400-141500-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.027		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	12		2.5	1.8	ug/L	5		6020	Total Recoverable

## Client Sample ID: GWC-35

## Lab Sample ID: 400-141500-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		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 Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Client Sample ID: DUP-2

## Lab Sample ID: 400-141500-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-31

## Lab Sample ID: 400-141500-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0030		0.0025	0.0021	mg/L	5		6020	Total Recoverable
Nickel	0.0029		0.0025	0.0018	mg/L	5		6020	Total Recoverable
Barium	0.0033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Silver	0.00050	J	0.0013	0.00011	mg/L	5		6020	Total Recoverable
Beryllium	0.0011	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Zinc	0.033		0.020	0.0065	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.00037	J	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.027		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.00042	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-33

## Lab Sample ID: 400-141500-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	4.0		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.70	mg/L	1		300.0	Total/NA
Barium	0.0062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00051	J	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0023	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0018	J	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00084	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00016	J	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	90		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-141500-17

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Client Sample ID: GWC-13 (Continued)

## Lab Sample ID: 400-141500-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0032		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: DUP-3

## Lab Sample ID: 400-141500-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0031		0.0025	0.00049	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-30

## Lab Sample ID: 400-141500-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0072		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Selenium	0.00027	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Vanadium	1.8	J	2.5	1.4	ug/L	5		6020	Total Recoverable

## Client Sample ID: FB-3

## Lab Sample ID: 400-141500-20

No Detections.

## Client Sample ID: GWC-7

## Lab Sample ID: 400-141500-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.088		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0033		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Nickel	11		2.5	1.8	ug/L	5		6020	Total Recoverable
Selenium	0.00033	J	0.0013	0.00024	mg/L	5		6020	Total Recoverable

## Client Sample ID: FERB-2

## Lab Sample ID: 400-141500-22

No Detections.

## Client Sample ID: GWC-15

## Lab Sample ID: 400-141500-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0018	J	0.0025	0.00040	mg/L	5		6020	Total Recoverable

## Client Sample ID: FERB-3

## Lab Sample ID: 400-141500-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00057	J	0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

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 Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-141500-1	GWA-2	Water	08/02/17 14:45	08/05/17 08:20
400-141500-2	GWA-4	Water	08/02/17 14:55	08/05/17 08:20
400-141500-3	FERB-1	Water	08/02/17 15:15	08/05/17 08:20
400-141500-4	FB-2	Water	08/02/17 15:30	08/05/17 08:20
400-141500-5	GWA-1	Water	08/03/17 11:20	08/05/17 08:20
400-141500-6	GWC-5	Water	08/03/17 14:45	08/05/17 08:20
400-141500-7	GWC-6	Water	08/03/17 16:30	08/05/17 08:20
400-141500-8	GWC-25	Water	08/03/17 13:40	08/05/17 08:20
400-141500-9	GWC-26	Water	08/03/17 12:50	08/05/17 08:20
400-141500-10	GWC-27	Water	08/03/17 15:53	08/05/17 08:20
400-141500-11	GWC-32	Water	08/03/17 15:41	08/05/17 08:20
400-141500-12	GWC-34	Water	08/03/17 13:40	08/05/17 08:20
400-141500-13	GWC-35	Water	08/03/17 12:30	08/05/17 08:20
400-141500-14	DUP-2	Water	08/03/17 00:00	08/05/17 08:20
400-141500-15	GWC-31	Water	08/04/17 09:30	08/05/17 08:20
400-141500-16	GWC-33	Water	08/04/17 10:00	08/05/17 08:20
400-141500-17	GWC-13	Water	08/04/17 10:35	08/05/17 08:20
400-141500-18	DUP-3	Water	08/04/17 00:00	08/05/17 08:20
400-141500-19	GWC-30	Water	08/04/17 11:41	08/05/17 08:20
400-141500-20	FB-3	Water	08/04/17 11:50	08/05/17 08:20
400-141500-21	GWC-7	Water	08/04/17 11:30	08/05/17 08:20
400-141500-22	FERB-2	Water	08/04/17 11:45	08/05/17 08:20
400-141500-23	GWC-15	Water	08/04/17 11:46	08/05/17 08:20
400-141500-24	FERB-3	Water	08/04/17 12:00	08/05/17 08:20

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-2**  
**Date Collected: 08/02/17 14:45**  
**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-1**  
**Matrix: Water**

**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		08/13/17 11:16	08/24/17 13:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 13:01	5
<b>Barium</b>	<b>0.014</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 13:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 13:01	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 13:01	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 13:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 13:01	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 13:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 13:01	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 13:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 13:01	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 13:01	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 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		08/12/17 13:15	08/15/17 11:55	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-4**  
**Date Collected: 08/02/17 14:55**  
**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-2**  
**Matrix: Water**

## 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		08/13/17 11:16	08/24/17 13:06	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 13:06	5
<b>Barium</b>	<b>0.15</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 13:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:06	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 13:06	5
<b>Cobalt</b>	<b>0.0050</b>		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 13:06	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 13:06	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 13:06	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 13:06	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 13:06	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 13:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 13:06	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 13:06	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 13:06	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		08/12/17 13:15	08/15/17 12:02	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: FERB-1**

**Date Collected: 08/02/17 15:15**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-3**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 13:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 13:47	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 13:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 13:47	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 13:47	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 13:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 13:47	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 13:47	5
<b>Selenium</b>	<b>0.00076</b>	<b>J</b>	0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 13:47	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 13:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 13:47	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 13:47	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 13:47	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		08/12/17 13:15	08/15/17 12:24	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: FB-2**  
**Date Collected: 08/02/17 15:30**  
**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-4**  
**Matrix: Water**

### 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		08/13/17 11:16	08/24/17 13:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 13:52	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 13:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:52	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 13:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 13:52	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 13:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 13:52	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 13:52	5
<b>Selenium</b>	<b>0.00029</b>	<b>J</b>	0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 13:52	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 13:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 13:52	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 13:52	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 13:52	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		08/12/17 13:15	08/15/17 12:25	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-1**

**Date Collected: 08/03/17 11:20**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-5**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 13:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 13:56	5
<b>Barium</b>	<b>0.0099</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 13:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 13:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 13:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 13:56	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 13:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 13:56	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 13:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 13:56	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 13:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 13:56	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 13:56	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 13:56	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		08/12/17 13:15	08/15/17 12:27	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-5**

**Date Collected: 08/03/17 14:45**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-6**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:01	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:01	5
<b>Barium</b>	<b>0.025</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:01	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:01	5
<b>Cobalt</b>	<b>0.0061</b>		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:01	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:01	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:01	5
<b>Nickel</b>	<b>8.8</b>		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:01	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:01	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:01	5
<b>Vanadium</b>	<b>3.1</b>		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:01	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:01	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		08/12/17 13:15	08/15/17 12:29	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-6**

**Date Collected: 08/03/17 16:30**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-7**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:05	5
<b>Barium</b>	<b>0.049</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:05	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:05	5
<b>Cobalt</b>	<b>0.014</b>		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:05	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:05	5
<b>Nickel</b>	<b>5.1</b>		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:05	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:05	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:05	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:05	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:05	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:05	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		08/12/17 13:15	08/15/17 12:30	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-25**

**Date Collected: 08/03/17 13:40**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-8**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:10	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:10	5
<b>Barium</b>	<b>0.012</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:10	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:10	5
<b>Cobalt</b>	<b>0.00041</b>	<b>J</b>	0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:10	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:10	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:10	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:10	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:10	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:10	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:10	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		08/12/17 13:15	08/15/17 12:32	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-26**

**Date Collected: 08/03/17 12:50**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-9**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:14	5
<b>Barium</b>	<b>0.032</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:14	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:14	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:14	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:14	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:14	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:14	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		08/12/17 13:15	08/15/17 12:34	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-27**

**Date Collected: 08/03/17 15:53**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-10**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:37	5
<b>Barium</b>	<b>0.015</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:37	5
<b>Beryllium</b>	<b>0.0050</b>		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:37	5
<b>Cobalt</b>	<b>0.0024</b>	<b>J</b>	0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:37	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:37	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:37	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:37	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:37	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:37	5
<b>Thallium</b>	<b>0.00016</b>	<b>J</b>	0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:37	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:37	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:37	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		08/12/17 13:15	08/15/17 12:36	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-32**

**Date Collected: 08/03/17 15:41**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-11**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:42	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:42	5
<b>Barium</b>	<b>0.0022</b>	<b>J</b>	0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:42	5
<b>Beryllium</b>	<b>0.0018</b>	<b>J</b>	0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:42	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:42	5
<b>Chromium</b>	<b>0.0053</b>		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:42	5
<b>Cobalt</b>	<b>0.00045</b>	<b>J</b>	0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:42	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:42	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:42	5
<b>Nickel</b>	<b>1.8</b>	<b>J</b>	2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:42	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:42	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:42	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:42	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:42	5
<b>Zinc</b>	<b>59</b>		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:42	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		08/12/17 13:15	08/15/17 12:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-34**

**Date Collected: 08/03/17 13:40**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-12**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:47	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:47	5
<b>Barium</b>	<b>0.031</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:47	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:47	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:47	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:47	5
<b>Cobalt</b>	<b>0.027</b>		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:47	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:47	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:47	5
<b>Nickel</b>	<b>12</b>		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:47	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:47	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:47	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:47	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:47	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:47	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		08/12/17 13:15	08/15/17 12:39	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-35**

**Date Collected: 08/03/17 12:30**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-13**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:51	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:51	5
<b>Barium</b>	<b>0.020</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:51	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:51	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:51	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:51	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:51	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:51	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:51	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:51	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:51	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:51	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:51	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:51	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:51	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		08/12/17 13:15	08/15/17 12:55	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: DUP-2**

**Date Collected: 08/03/17 00:00**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-14**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 14:56	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 14:56	5
<b>Barium</b>	<b>0.032</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 14:56	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:56	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 14:56	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 14:56	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 14:56	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 14:56	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 14:56	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 14:56	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 14:56	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 14:56	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 14:56	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 14:56	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 14:56	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		08/12/17 13:15	08/15/17 12:57	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-31**  
**Date Collected: 08/04/17 09:30**  
**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-15**  
**Matrix: Water**

**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		08/13/17 11:16	08/24/17 15:00	5
<b>Copper</b>	<b>0.0030</b>		0.0025	0.0021	mg/L		08/13/17 11:16	08/24/17 15:00	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Nickel</b>	<b>0.0029</b>		0.0025	0.0018	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Barium</b>	<b>0.0033</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Silver</b>	<b>0.00050</b>	J	0.0013	0.00011	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Beryllium</b>	<b>0.0011</b>	J	0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:00	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		08/13/17 11:16	08/24/17 15:00	5
Boron	<0.021		0.050	0.021	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Zinc</b>	<b>0.033</b>		0.020	0.0065	mg/L		08/13/17 11:16	08/24/17 15:00	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Calcium</b>	<b>13</b>		0.25	0.13	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Chromium</b>	<b>0.0021</b>	J	0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 15:00	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Lead</b>	<b>0.00037</b>	J	0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Lithium</b>	<b>0.027</b>		0.0050	0.0032	mg/L		08/13/17 11:16	08/24/17 15:00	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/13/17 11:16	08/24/17 15:00	5
<b>Selenium</b>	<b>0.00042</b>	J	0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 15:00	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 15:00	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		08/12/17 13:15	08/15/17 12:59	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-33**

**Date Collected: 08/04/17 10:00**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-16**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			08/09/17 13:40	1
Fluoride	4.0		0.20	0.082	mg/L			08/09/17 13:40	1
Sulfate	25		1.0	0.70	mg/L			08/09/17 13:40	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		08/13/17 11:16	08/24/17 15:05	5
Copper	<0.0021		0.0025	0.0021	mg/L		08/13/17 11:16	08/24/17 15:05	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 15:05	5
Nickel	<0.0018		0.0025	0.0018	mg/L		08/13/17 11:16	08/24/17 15:05	5
Barium	0.0062		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 15:05	5
Silver	<0.00011		0.0013	0.00011	mg/L		08/13/17 11:16	08/24/17 15:05	5
Beryllium	0.00051	J	0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:05	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		08/13/17 11:16	08/24/17 15:05	5
Boron	<0.021		0.050	0.021	mg/L		08/13/17 11:16	08/24/17 15:05	5
Zinc	<0.0065		0.020	0.0065	mg/L		08/13/17 11:16	08/24/17 15:05	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:05	5
Calcium	11		0.25	0.13	mg/L		08/13/17 11:16	08/24/17 15:05	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 15:05	5
Cobalt	0.0023	J	0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 15:05	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 15:05	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/13/17 11:16	08/24/17 15:05	5
Molybdenum	0.0018	J	0.015	0.00085	mg/L		08/13/17 11:16	08/24/17 15:05	5
Selenium	0.00084	J	0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 15:05	5
Thallium	0.00016	J	0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 15:05	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		08/12/17 13:15	08/15/17 13:00	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	90		5.0	3.4	mg/L			08/10/17 10:22	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-13**

**Date Collected: 08/04/17 10:35**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-17**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 15:09	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 15:09	5
<b>Barium</b>	<b>0.0032</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 15:09	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:09	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:09	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 15:09	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 15:09	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 15:09	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 15:09	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 15:09	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 15:09	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 15:09	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 15:09	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 15:09	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 15:09	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		08/12/17 13:15	08/15/17 13:02	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: DUP-3**

**Date Collected: 08/04/17 00:00**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-18**

**Matrix: Water**

**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		08/13/17 11:16	08/24/17 15:14	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 15:14	5
<b>Barium</b>	<b>0.0031</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 15:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 15:14	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 15:14	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 15:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 15:14	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 15:14	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 15:14	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 15:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 15:14	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 15:14	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 15:14	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		08/12/17 13:15	08/15/17 13:04	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-30**  
**Date Collected: 08/04/17 11:41**  
**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-19**  
**Matrix: Water**

**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		08/13/17 11:16	08/24/17 15:18	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 15:18	5
<b>Barium</b>	<b>0.0072</b>		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 15:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:18	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 15:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 15:18	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 15:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 15:18	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 15:18	5
<b>Selenium</b>	<b>0.00027</b>	<b>J</b>	0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 15:18	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 15:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 15:18	5
<b>Vanadium</b>	<b>1.8</b>	<b>J</b>	2.5	1.4	ug/L		08/13/17 11:16	08/24/17 15:18	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 15:18	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		08/12/17 13:15	08/15/17 13:06	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: FB-3**  
**Date Collected: 08/04/17 11:50**  
**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-20**  
**Matrix: Water**

**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		08/13/17 11:16	08/24/17 15:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 15:41	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 15:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 15:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 15:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 15:41	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 15:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 15:41	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 15:41	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 15:41	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 15:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 15:41	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 15:41	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 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		08/12/17 13:15	08/15/17 13:09	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-7**

**Date Collected: 08/04/17 11:30**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-21**

**Matrix: Water**

**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		08/13/17 11:38	08/20/17 19:44	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:38	08/20/17 19:44	5
<b>Barium</b>	<b>0.088</b>		0.0025	0.00049	mg/L		08/13/17 11:38	08/20/17 19:44	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 19:44	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 19:44	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:38	08/20/17 19:44	5
<b>Cobalt</b>	<b>0.0033</b>		0.0025	0.00040	mg/L		08/13/17 11:38	08/20/17 19:44	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:38	08/20/17 19:44	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:38	08/20/17 19:44	5
<b>Nickel</b>	<b>11</b>		2.5	1.8	ug/L		08/13/17 11:38	08/20/17 19:44	5
<b>Selenium</b>	<b>0.00033</b>	<b>J</b>	0.0013	0.00024	mg/L		08/13/17 11:38	08/20/17 19:44	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:38	08/20/17 19:44	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:38	08/20/17 19:44	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:38	08/20/17 19:44	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:38	08/20/17 19:44	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		08/12/17 13:15	08/14/17 11:46	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: FERB-2**

**Date Collected: 08/04/17 11:45**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-22**

**Matrix: Water**

**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		08/13/17 11:38	08/20/17 20:24	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:38	08/20/17 20:24	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/13/17 11:38	08/20/17 20:24	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 20:24	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 20:24	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:38	08/20/17 20:24	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:38	08/20/17 20:24	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:38	08/20/17 20:24	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:38	08/20/17 20:24	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:38	08/20/17 20:24	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:38	08/20/17 20:24	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:38	08/20/17 20:24	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:38	08/20/17 20:24	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:38	08/20/17 20:24	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:38	08/20/17 20:24	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		08/12/17 13:15	08/14/17 11:48	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-15**

**Date Collected: 08/04/17 11:46**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-23**

**Matrix: Water**

**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		08/13/17 11:38	08/20/17 20:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:38	08/20/17 20:29	5
<b>Barium</b>	<b>0.010</b>		0.0025	0.00049	mg/L		08/13/17 11:38	08/20/17 20:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 20:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 20:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:38	08/20/17 20:29	5
<b>Cobalt</b>	<b>0.0018</b>	<b>J</b>	0.0025	0.00040	mg/L		08/13/17 11:38	08/20/17 20:29	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:38	08/20/17 20:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:38	08/20/17 20:29	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:38	08/20/17 20:29	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:38	08/20/17 20:29	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:38	08/20/17 20:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:38	08/20/17 20:29	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:38	08/20/17 20:29	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:38	08/20/17 20:29	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		08/12/17 13:15	08/14/17 11:50	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

**Client Sample ID: FERB-3**

**Date Collected: 08/04/17 12:00**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-24**

**Matrix: Water**

**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		08/13/17 11:38	08/20/17 20:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:38	08/20/17 20:33	5
<b>Barium</b>	<b>0.00057</b>	<b>J</b>	0.0025	0.00049	mg/L		08/13/17 11:38	08/20/17 20:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 20:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 20:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:38	08/20/17 20:33	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:38	08/20/17 20:33	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:38	08/20/17 20:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:38	08/20/17 20:33	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:38	08/20/17 20:33	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:38	08/20/17 20:33	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:38	08/20/17 20:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:38	08/20/17 20:33	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:38	08/20/17 20:33	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:38	08/20/17 20:33	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		08/12/17 13:15	08/14/17 11:51	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## 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	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 Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-2**

**Date Collected: 08/02/17 14:45**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 13:01	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 11:55	JAP	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 08/02/17 14:55**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 13:06	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:02	JAP	TAL PEN

**Client Sample ID: FERB-1**

**Date Collected: 08/02/17 15:15**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 13:47	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:24	JAP	TAL PEN

**Client Sample ID: FB-2**

**Date Collected: 08/02/17 15:30**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 13:52	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:25	JAP	TAL PEN

**Client Sample ID: GWA-1**

**Date Collected: 08/03/17 11:20**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 13:56	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWA-1**

**Date Collected: 08/03/17 11:20**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	364287	08/15/17 12:27	JAP	TAL PEN

**Client Sample ID: GWC-5**

**Date Collected: 08/03/17 14:45**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:01	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:29	JAP	TAL PEN

**Client Sample ID: GWC-6**

**Date Collected: 08/03/17 16:30**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:05	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:30	JAP	TAL PEN

**Client Sample ID: GWC-25**

**Date Collected: 08/03/17 13:40**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:10	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:32	JAP	TAL PEN

**Client Sample ID: GWC-26**

**Date Collected: 08/03/17 12:50**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:14	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:34	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-141500-10**

**Date Collected: 08/03/17 15:53**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:37	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:36	JAP	TAL PEN

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-141500-11**

**Date Collected: 08/03/17 15:41**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:42	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:37	JAP	TAL PEN

**Client Sample ID: GWC-34**

**Lab Sample ID: 400-141500-12**

**Date Collected: 08/03/17 13:40**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:47	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:39	JAP	TAL PEN

**Client Sample ID: GWC-35**

**Lab Sample ID: 400-141500-13**

**Date Collected: 08/03/17 12:30**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:51	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:55	JAP	TAL PEN

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-141500-14**

**Date Collected: 08/03/17 00:00**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 14:56	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-141500-14**

**Date Collected: 08/03/17 00:00**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	364287	08/15/17 12:57	JAP	TAL PEN

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-141500-15**

**Date Collected: 08/04/17 09:30**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 15:00	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 12:59	JAP	TAL PEN

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-141500-16**

**Date Collected: 08/04/17 10:00**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	363652	08/09/17 13:40	TAJ	TAL PEN
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 15:05	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	363608	08/10/17 10:22	TET	TAL PEN

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-141500-17**

**Date Collected: 08/04/17 10:35**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 15:09	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 13:02	JAP	TAL PEN

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-141500-18**

**Date Collected: 08/04/17 00:00**

**Matrix: Water**

**Date Received: 08/05/17 08:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 15:14	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 13:04	JAP	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-30**

**Date Collected: 08/04/17 11:41**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-19**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 15:18	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 13:06	JAP	TAL PEN

**Client Sample ID: FB-3**

**Date Collected: 08/04/17 11:50**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-20**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364022	08/13/17 11:16	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	365637	08/24/17 15:41	DRE	TAL PEN
Total/NA	Prep	7470A			363938	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364287	08/15/17 13:09	JAP	TAL PEN

**Client Sample ID: GWC-7**

**Date Collected: 08/04/17 11:30**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-21**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364023	08/13/17 11:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	364982	08/20/17 19:44	DRE	TAL PEN
Total/NA	Prep	7470A			363883	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364121	08/14/17 11:46	JAP	TAL PEN

**Client Sample ID: FERB-2**

**Date Collected: 08/04/17 11:45**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-22**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364023	08/13/17 11:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	364982	08/20/17 20:24	DRE	TAL PEN
Total/NA	Prep	7470A			363883	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364121	08/14/17 11:48	JAP	TAL PEN

**Client Sample ID: GWC-15**

**Date Collected: 08/04/17 11:46**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-23**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364023	08/13/17 11:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	364982	08/20/17 20:29	DRE	TAL PEN
Total/NA	Prep	7470A			363883	08/12/17 13:15	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

**Client Sample ID: GWC-15**

**Date Collected: 08/04/17 11:46**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-23**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	364121	08/14/17 11:50	JAP	TAL PEN

**Client Sample ID: FERB-3**

**Date Collected: 08/04/17 12:00**

**Date Received: 08/05/17 08:20**

**Lab Sample ID: 400-141500-24**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			364023	08/13/17 11:38	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	364982	08/20/17 20:33	DRE	TAL PEN
Total/NA	Prep	7470A			363883	08/12/17 13:15	DN1	TAL PEN
Total/NA	Analysis	7470A		1	364121	08/14/17 11:51	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 Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## HPLC/IC

### Analysis Batch: 363652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-16	GWC-33	Total/NA	Water	300.0	
MB 400-363652/4	Method Blank	Total/NA	Water	300.0	
LCS 400-363652/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-363652/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-141486-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
400-141486-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 363883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-21	GWC-7	Total/NA	Water	7470A	
400-141500-22	FERB-2	Total/NA	Water	7470A	
400-141500-23	GWC-15	Total/NA	Water	7470A	
400-141500-24	FERB-3	Total/NA	Water	7470A	
MB 400-363883/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-363883/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-141359-A-3-A MS	Matrix Spike	Total/NA	Water	7470A	
400-141359-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Prep Batch: 363938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-1	GWA-2	Total/NA	Water	7470A	
400-141500-2	GWA-4	Total/NA	Water	7470A	
400-141500-3	FERB-1	Total/NA	Water	7470A	
400-141500-4	FB-2	Total/NA	Water	7470A	
400-141500-5	GWA-1	Total/NA	Water	7470A	
400-141500-6	GWC-5	Total/NA	Water	7470A	
400-141500-7	GWC-6	Total/NA	Water	7470A	
400-141500-8	GWC-25	Total/NA	Water	7470A	
400-141500-9	GWC-26	Total/NA	Water	7470A	
400-141500-10	GWC-27	Total/NA	Water	7470A	
400-141500-11	GWC-32	Total/NA	Water	7470A	
400-141500-12	GWC-34	Total/NA	Water	7470A	
400-141500-13	GWC-35	Total/NA	Water	7470A	
400-141500-14	DUP-2	Total/NA	Water	7470A	
400-141500-15	GWC-31	Total/NA	Water	7470A	
400-141500-16	GWC-33	Total/NA	Water	7470A	
400-141500-17	GWC-13	Total/NA	Water	7470A	
400-141500-18	DUP-3	Total/NA	Water	7470A	
400-141500-19	GWC-30	Total/NA	Water	7470A	
400-141500-20	FB-3	Total/NA	Water	7470A	
MB 400-363938/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-363938/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-141500-1 MS	GWA-2	Total/NA	Water	7470A	
400-141500-1 MSD	GWA-2	Total/NA	Water	7470A	

### Prep Batch: 364022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-1	GWA-2	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Metals (Continued)

### Prep Batch: 364022 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-2	GWA-4	Total Recoverable	Water	3005A	
400-141500-3	FERB-1	Total Recoverable	Water	3005A	
400-141500-4	FB-2	Total Recoverable	Water	3005A	
400-141500-5	GWA-1	Total Recoverable	Water	3005A	
400-141500-6	GWC-5	Total Recoverable	Water	3005A	
400-141500-7	GWC-6	Total Recoverable	Water	3005A	
400-141500-8	GWC-25	Total Recoverable	Water	3005A	
400-141500-9	GWC-26	Total Recoverable	Water	3005A	
400-141500-10	GWC-27	Total Recoverable	Water	3005A	
400-141500-11	GWC-32	Total Recoverable	Water	3005A	
400-141500-12	GWC-34	Total Recoverable	Water	3005A	
400-141500-13	GWC-35	Total Recoverable	Water	3005A	
400-141500-14	DUP-2	Total Recoverable	Water	3005A	
400-141500-15	GWC-31	Total Recoverable	Water	3005A	
400-141500-16	GWC-33	Total Recoverable	Water	3005A	
400-141500-17	GWC-13	Total Recoverable	Water	3005A	
400-141500-18	DUP-3	Total Recoverable	Water	3005A	
400-141500-19	GWC-30	Total Recoverable	Water	3005A	
400-141500-20	FB-3	Total Recoverable	Water	3005A	
MB 400-364022/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-364022/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-141500-2 MS	GWA-4	Total Recoverable	Water	3005A	
400-141500-2 MSD	GWA-4	Total Recoverable	Water	3005A	

### Prep Batch: 364023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-21	GWC-7	Total Recoverable	Water	3005A	
400-141500-22	FERB-2	Total Recoverable	Water	3005A	
400-141500-23	GWC-15	Total Recoverable	Water	3005A	
400-141500-24	FERB-3	Total Recoverable	Water	3005A	
MB 400-364023/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-364023/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-141500-21 MS	GWC-7	Total Recoverable	Water	3005A	
400-141500-21 MSD	GWC-7	Total Recoverable	Water	3005A	

### Analysis Batch: 364121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-21	GWC-7	Total/NA	Water	7470A	363883
400-141500-22	FERB-2	Total/NA	Water	7470A	363883
400-141500-23	GWC-15	Total/NA	Water	7470A	363883
400-141500-24	FERB-3	Total/NA	Water	7470A	363883
MB 400-363883/14-A	Method Blank	Total/NA	Water	7470A	363883
LCS 400-363883/15-A	Lab Control Sample	Total/NA	Water	7470A	363883
400-141359-A-3-A MS	Matrix Spike	Total/NA	Water	7470A	363883
400-141359-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	363883

### Analysis Batch: 364287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-1	GWA-2	Total/NA	Water	7470A	363938
400-141500-2	GWA-4	Total/NA	Water	7470A	363938
400-141500-3	FERB-1	Total/NA	Water	7470A	363938

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

## Metals (Continued)

### Analysis Batch: 364287 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-4	FB-2	Total/NA	Water	7470A	363938
400-141500-5	GWA-1	Total/NA	Water	7470A	363938
400-141500-6	GWC-5	Total/NA	Water	7470A	363938
400-141500-7	GWC-6	Total/NA	Water	7470A	363938
400-141500-8	GWC-25	Total/NA	Water	7470A	363938
400-141500-9	GWC-26	Total/NA	Water	7470A	363938
400-141500-10	GWC-27	Total/NA	Water	7470A	363938
400-141500-11	GWC-32	Total/NA	Water	7470A	363938
400-141500-12	GWC-34	Total/NA	Water	7470A	363938
400-141500-13	GWC-35	Total/NA	Water	7470A	363938
400-141500-14	DUP-2	Total/NA	Water	7470A	363938
400-141500-15	GWC-31	Total/NA	Water	7470A	363938
400-141500-16	GWC-33	Total/NA	Water	7470A	363938
400-141500-17	GWC-13	Total/NA	Water	7470A	363938
400-141500-18	DUP-3	Total/NA	Water	7470A	363938
400-141500-19	GWC-30	Total/NA	Water	7470A	363938
400-141500-20	FB-3	Total/NA	Water	7470A	363938
MB 400-363938/14-A	Method Blank	Total/NA	Water	7470A	363938
LCS 400-363938/15-A	Lab Control Sample	Total/NA	Water	7470A	363938
400-141500-1 MS	GWA-2	Total/NA	Water	7470A	363938
400-141500-1 MSD	GWA-2	Total/NA	Water	7470A	363938

### Analysis Batch: 364982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-21	GWC-7	Total Recoverable	Water	6020	364023
400-141500-22	FERB-2	Total Recoverable	Water	6020	364023
400-141500-23	GWC-15	Total Recoverable	Water	6020	364023
400-141500-24	FERB-3	Total Recoverable	Water	6020	364023
MB 400-364023/1-A ^5	Method Blank	Total Recoverable	Water	6020	364023
LCS 400-364023/2-A	Lab Control Sample	Total Recoverable	Water	6020	364023
400-141500-21 MS	GWC-7	Total Recoverable	Water	6020	364023
400-141500-21 MSD	GWC-7	Total Recoverable	Water	6020	364023

### Analysis Batch: 365637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-1	GWA-2	Total Recoverable	Water	6020	364022
400-141500-2	GWA-4	Total Recoverable	Water	6020	364022
400-141500-3	FERB-1	Total Recoverable	Water	6020	364022
400-141500-4	FB-2	Total Recoverable	Water	6020	364022
400-141500-5	GWA-1	Total Recoverable	Water	6020	364022
400-141500-6	GWC-5	Total Recoverable	Water	6020	364022
400-141500-7	GWC-6	Total Recoverable	Water	6020	364022
400-141500-8	GWC-25	Total Recoverable	Water	6020	364022
400-141500-9	GWC-26	Total Recoverable	Water	6020	364022
400-141500-10	GWC-27	Total Recoverable	Water	6020	364022
400-141500-11	GWC-32	Total Recoverable	Water	6020	364022
400-141500-12	GWC-34	Total Recoverable	Water	6020	364022
400-141500-13	GWC-35	Total Recoverable	Water	6020	364022
400-141500-14	DUP-2	Total Recoverable	Water	6020	364022
400-141500-15	GWC-31	Total Recoverable	Water	6020	364022
400-141500-16	GWC-33	Total Recoverable	Water	6020	364022

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Metals (Continued)

### Analysis Batch: 365637 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-17	GWC-13	Total Recoverable	Water	6020	364022
400-141500-18	DUP-3	Total Recoverable	Water	6020	364022
400-141500-19	GWC-30	Total Recoverable	Water	6020	364022
400-141500-20	FB-3	Total Recoverable	Water	6020	364022
MB 400-364022/1-A ^5	Method Blank	Total Recoverable	Water	6020	364022
LCS 400-364022/2-A	Lab Control Sample	Total Recoverable	Water	6020	364022
400-141500-2 MS	GWA-4	Total Recoverable	Water	6020	364022
400-141500-2 MSD	GWA-4	Total Recoverable	Water	6020	364022

## General Chemistry

### Analysis Batch: 363608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-141500-16	GWC-33	Total/NA	Water	SM 2540C	
MB 400-363608/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-363608/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-141500-16 DU	GWC-33	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-363652/4**  
**Matrix: Water**  
**Analysis Batch: 363652**

**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			08/09/17 11:01	1
Fluoride	<0.082		0.20	0.082	mg/L			08/09/17 11:01	1
Sulfate	<0.70		1.0	0.70	mg/L			08/09/17 11:01	1

**Lab Sample ID: LCS 400-363652/5**  
**Matrix: Water**  
**Analysis Batch: 363652**

**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	9.80		mg/L		98	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-363652/6**  
**Matrix: Water**  
**Analysis Batch: 363652**

**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	9.84		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	2	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

**Lab Sample ID: 400-141486-A-5 MS**  
**Matrix: Water**  
**Analysis Batch: 363652**

**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		10.0	27.2		mg/L		95	80 - 120
Fluoride	0.19	J	10.0	10.5		mg/L		103	80 - 120
Sulfate	11		10.0	21.5		mg/L		105	80 - 120

**Lab Sample ID: 400-141486-A-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 363652**

**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		10.0	27.2		mg/L		95	80 - 120	0	20
Fluoride	0.19	J	10.0	10.6		mg/L		105	80 - 120	1	20
Sulfate	11		10.0	21.5		mg/L		106	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-364022/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 365637**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364022**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/13/17 11:16	08/24/17 12:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:16	08/24/17 12:33	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-364022/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 365637**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364022**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		08/13/17 11:16	08/24/17 12:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 12:33	5
Boron	<0.021		0.050	0.021	mg/L		08/13/17 11:16	08/24/17 12:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:16	08/24/17 12:33	5
Calcium	<0.13		0.25	0.13	mg/L		08/13/17 11:16	08/24/17 12:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:16	08/24/17 12:33	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:16	08/24/17 12:33	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:16	08/24/17 12:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:16	08/24/17 12:33	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:16	08/24/17 12:33	5
Lithium	<0.0032		0.0050	0.0032	mg/L		08/13/17 11:16	08/24/17 12:33	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		08/13/17 11:16	08/24/17 12:33	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:16	08/24/17 12:33	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:16	08/24/17 12:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:16	08/24/17 12:33	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:16	08/24/17 12:33	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:16	08/24/17 12:33	5

**Lab Sample ID: LCS 400-364022/2-A**  
**Matrix: Water**  
**Analysis Batch: 365637**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364022**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0539		mg/L		108	80 - 120
Arsenic	0.0500	0.0536		mg/L		107	80 - 120
Barium	0.0500	0.0519		mg/L		104	80 - 120
Beryllium	0.0500	0.0497		mg/L		99	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Cadmium	0.0500	0.0518		mg/L		104	80 - 120
Calcium	5.00	5.07		mg/L		101	80 - 120
Chromium	0.0500	0.0529		mg/L		106	80 - 120
Copper	50.0	53.7		ug/L		107	80 - 120
Cobalt	0.0500	0.0535		mg/L		107	80 - 120
Lead	0.0500	0.0521		mg/L		104	80 - 120
Nickel	50.0	52.9		ug/L		106	80 - 120
Lithium	0.0500	0.0527		mg/L		105	80 - 120
Molybdenum	0.100	0.104		mg/L		104	80 - 120
Silver	50.0	50.4		ug/L		101	80 - 120
Selenium	0.0500	0.0519		mg/L		104	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120
Vanadium	50.0	55.1		ug/L		110	80 - 120
Zinc	50.0	53.4		ug/L		107	80 - 120

**Lab Sample ID: 400-141500-2 MS**  
**Matrix: Water**  
**Analysis Batch: 365637**

**Client Sample ID: GWA-4**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364022**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0570		mg/L		114	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-141500-2 MS**  
**Matrix: Water**  
**Analysis Batch: 365637**

**Client Sample ID: GWA-4**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364022**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	
	Result			Result					Limits	Limits
Arsenic	<0.00046		0.0500	0.0539		mg/L		108	75 - 125	
Barium	0.15		0.0500	0.204		mg/L		101	75 - 125	
Beryllium	<0.00034		0.0500	0.0517		mg/L		103	75 - 125	
Boron	<0.021		0.100	0.112		mg/L		112	75 - 125	
Cadmium	<0.00034		0.0500	0.0526		mg/L		105	75 - 125	
Calcium	29		5.00	34.0	4	mg/L		92	75 - 125	
Chromium	<0.0011		0.0500	0.0538		mg/L		108	75 - 125	
Copper	<2.1		50.0	54.3		ug/L		109	75 - 125	
Cobalt	0.0050		0.0500	0.0575		mg/L		105	75 - 125	
Lead	<0.00035		0.0500	0.0503		mg/L		101	75 - 125	
Nickel	<1.8		50.0	54.8		ug/L		110	75 - 125	
Lithium	0.0045	J	0.0500	0.0564		mg/L		104	75 - 125	
Molybdenum	<0.00085		0.100	0.105		mg/L		105	75 - 125	
Silver	<0.11		50.0	51.2		ug/L		102	75 - 125	
Selenium	<0.00024		0.0500	0.0537		mg/L		107	75 - 125	
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125	
Vanadium	<1.4		50.0	55.6		ug/L		111	75 - 125	
Zinc	<6.5		50.0	56.8		ug/L		114	75 - 125	

**Lab Sample ID: 400-141500-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 365637**

**Client Sample ID: GWA-4**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364022**

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
	Result			Result					Limits	Limit	RPD	Limit
Antimony	<0.0010		0.0500	0.0542		mg/L		108	75 - 125	5	20	
Arsenic	<0.00046		0.0500	0.0530		mg/L		106	75 - 125	2	20	
Barium	0.15		0.0500	0.201		mg/L		94	75 - 125	2	20	
Beryllium	<0.00034		0.0500	0.0491		mg/L		98	75 - 125	5	20	
Boron	<0.021		0.100	0.106		mg/L		106	75 - 125	5	20	
Cadmium	<0.00034		0.0500	0.0534		mg/L		107	75 - 125	1	20	
Calcium	29		5.00	33.8	4	mg/L		87	75 - 125	1	20	
Chromium	<0.0011		0.0500	0.0522		mg/L		104	75 - 125	3	20	
Copper	<2.1		50.0	52.8		ug/L		106	75 - 125	3	20	
Cobalt	0.0050		0.0500	0.0566		mg/L		103	75 - 125	2	20	
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125	0	20	
Nickel	<1.8		50.0	54.0		ug/L		108	75 - 125	2	20	
Lithium	0.0045	J	0.0500	0.0545		mg/L		100	75 - 125	3	20	
Molybdenum	<0.00085		0.100	0.104		mg/L		104	75 - 125	1	20	
Silver	<0.11		50.0	51.3		ug/L		103	75 - 125	0	20	
Selenium	<0.00024		0.0500	0.0516		mg/L		103	75 - 125	4	20	
Thallium	<0.00085		0.0100	0.0101		mg/L		101	75 - 125	0	20	
Vanadium	<1.4		50.0	55.5		ug/L		111	75 - 125	0	20	
Zinc	<6.5		50.0	53.9		ug/L		108	75 - 125	5	20	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-364023/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 364982**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364023**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		08/13/17 11:38	08/20/17 19:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		08/13/17 11:38	08/20/17 19:30	5
Barium	<0.00049		0.0025	0.00049	mg/L		08/13/17 11:38	08/20/17 19:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 19:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		08/13/17 11:38	08/20/17 19:30	5
Chromium	<0.0011		0.0025	0.0011	mg/L		08/13/17 11:38	08/20/17 19:30	5
Copper	<2.1		2.5	2.1	ug/L		08/13/17 11:38	08/20/17 19:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		08/13/17 11:38	08/20/17 19:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		08/13/17 11:38	08/20/17 19:30	5
Nickel	<1.8		2.5	1.8	ug/L		08/13/17 11:38	08/20/17 19:30	5
Silver	<0.11		1.3	0.11	ug/L		08/13/17 11:38	08/20/17 19:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		08/13/17 11:38	08/20/17 19:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		08/13/17 11:38	08/20/17 19:30	5
Vanadium	<1.4		2.5	1.4	ug/L		08/13/17 11:38	08/20/17 19:30	5
Zinc	<6.5		20	6.5	ug/L		08/13/17 11:38	08/20/17 19:30	5

**Lab Sample ID: LCS 400-364023/2-A**  
**Matrix: Water**  
**Analysis Batch: 364982**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364023**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.0500	0.0542		mg/L		108	80 - 120
Arsenic	0.0500	0.0545		mg/L		109	80 - 120
Barium	0.0500	0.0526		mg/L		105	80 - 120
Beryllium	0.0500	0.0543		mg/L		109	80 - 120
Cadmium	0.0500	0.0530		mg/L		106	80 - 120
Chromium	0.0500	0.0555		mg/L		111	80 - 120
Copper	50.0	54.1		ug/L		108	80 - 120
Cobalt	0.0500	0.0549		mg/L		110	80 - 120
Lead	0.0500	0.0542		mg/L		108	80 - 120
Nickel	50.0	52.7		ug/L		105	80 - 120
Silver	50.0	49.1		ug/L		98	80 - 120
Selenium	0.0500	0.0527		mg/L		105	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120
Vanadium	50.0	54.6		ug/L		109	80 - 120
Zinc	50.0	53.7		ug/L		107	80 - 120

**Lab Sample ID: 400-141500-21 MS**  
**Matrix: Water**  
**Analysis Batch: 364982**

**Client Sample ID: GWC-7**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364023**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0010		0.0500	0.0564		mg/L		113	75 - 125
Arsenic	<0.00046		0.0500	0.0558		mg/L		112	75 - 125
Barium	0.088		0.0500	0.140		mg/L		104	75 - 125
Beryllium	<0.00034		0.0500	0.0546		mg/L		109	75 - 125
Cadmium	<0.00034		0.0500	0.0534		mg/L		107	75 - 125
Chromium	<0.0011		0.0500	0.0499		mg/L		100	75 - 125

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-141500-21 MS**  
**Matrix: Water**  
**Analysis Batch: 364982**

**Client Sample ID: GWC-7**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364023**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Copper	<2.1		50.0	53.4		ug/L		107		75 - 125
Cobalt	0.0033		0.0500	0.0547		mg/L		103		75 - 125
Lead	<0.00035		0.0500	0.0531		mg/L		106		75 - 125
Nickel	11		50.0	61.8		ug/L		102		75 - 125
Silver	<0.11		50.0	49.8		ug/L		100		75 - 125
Selenium	0.00033	J	0.0500	0.0542		mg/L		108		75 - 125
Thallium	<0.000085		0.0100	0.0103		mg/L		103		75 - 125
Vanadium	<1.4		50.0	50.9		ug/L		102		75 - 125
Zinc	<6.5		50.0	53.5		ug/L		107		75 - 125

**Lab Sample ID: 400-141500-21 MSD**  
**Matrix: Water**  
**Analysis Batch: 364982**

**Client Sample ID: GWC-7**  
**Prep Type: Total Recoverable**  
**Prep Batch: 364023**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Antimony	<0.0010		0.0500	0.0553		mg/L		111		75 - 125	2	20
Arsenic	<0.00046		0.0500	0.0550		mg/L		110		75 - 125	2	20
Barium	0.088		0.0500	0.138		mg/L		101		75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0546		mg/L		109		75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0533		mg/L		107		75 - 125	0	20
Chromium	<0.0011		0.0500	0.0503		mg/L		101		75 - 125	1	20
Copper	<2.1		50.0	52.9		ug/L		106		75 - 125	1	20
Cobalt	0.0033		0.0500	0.0543		mg/L		102		75 - 125	1	20
Lead	<0.00035		0.0500	0.0537		mg/L		107		75 - 125	1	20
Nickel	11		50.0	62.7		ug/L		104		75 - 125	2	20
Silver	<0.11		50.0	49.4		ug/L		99		75 - 125	1	20
Selenium	0.00033	J	0.0500	0.0525		mg/L		104		75 - 125	3	20
Thallium	<0.000085		0.0100	0.0103		mg/L		103		75 - 125	1	20
Vanadium	<1.4		50.0	50.8		ug/L		102		75 - 125	0	20
Zinc	<6.5		50.0	53.0		ug/L		106		75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-363883/14-A**  
**Matrix: Water**  
**Analysis Batch: 364121**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 363883**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000070		0.00020	0.000070	mg/L		08/12/17 13:15	08/14/17 10:13	1

**Lab Sample ID: LCS 400-363883/15-A**  
**Matrix: Water**  
**Analysis Batch: 364121**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363883**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Mercury	0.00101	0.00105		mg/L		104		80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
SDG: Gypsum Landfill + State Permit

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 400-141359-A-3-A MS**  
**Matrix: Water**  
**Analysis Batch: 364121**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 363883**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00036		0.00201	0.00218		mg/L		91	80 - 120

**Lab Sample ID: 400-141359-A-3-B MSD**  
**Matrix: Water**  
**Analysis Batch: 364121**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 363883**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00036		0.00201	0.00221		mg/L		92	80 - 120	1	20

**Lab Sample ID: MB 400-363938/14-A**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 363938**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		08/12/17 13:15	08/15/17 11:52	1

**Lab Sample ID: LCS 400-363938/15-A**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 363938**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00101	0.000988		mg/L		98	80 - 120

**Lab Sample ID: 400-141500-1 MS**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: GWA-2**  
**Prep Type: Total/NA**  
**Prep Batch: 363938**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000070		0.00201	0.00195		mg/L		97	80 - 120

**Lab Sample ID: 400-141500-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 364287**

**Client Sample ID: GWA-2**  
**Prep Type: Total/NA**  
**Prep Batch: 363938**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.000070		0.00201	0.00192		mg/L		95	80 - 120	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-363608/1**  
**Matrix: Water**  
**Analysis Batch: 363608**

**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			08/10/17 10:22	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 400-363608/2**  
**Matrix: Water**  
**Analysis Batch: 363608**

**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: 400-141500-16 DU**  
**Matrix: Water**  
**Analysis Batch: 363608**

**Client Sample ID: GWC-33**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	90		90.0		mg/L		0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

**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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

**Sampler:** C. Hurdle et al., T. Payne Jr., P. Harold Ph., A. Ellis, #WE  
**Lab PM:** Whitmire, Cheyenne R  
**Phone:**  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Carrier Tracking No(s):**  
**Page:** 1 of 2  
**Job #:** 1012

**COC No:**

**Analysis Requested**

**Due Date Requested:**  
**TAT Requested (days):**  
**FO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

**Field Filtered Sample (Yes or No)**  **Perform MS/MSD (Yes or No)**   
**Metals State Permit (EPA 6020)**   
**As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Mg, Ni, Sb, Se, Ag, Tl, V, Zn**   
**Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470**   
**TDS - SM 2540C ; Cl, F, SO4 - EPA 300**   
**Radium 226 & 228 - SW-846 9315 & 9320**   
**Total Number of containers**

**Preservation Codes:**  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2OAS  
 Q - Na2SO3  
 R - Na2SO3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 X - EDTA  
 Z - other (specify)  
**Other:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Preservation Code	Special Instructions/Note
GWA-2	08.02.2017	1445	G	W		
GWA-4	08.02.2017	1455	G	W		
FB-1	08.02.2017	1515	G	W		
FB-2	08.02.2017	1530	G	W		
GWA-1	08.03.2017	1120	G	W		
GWC-5	08.03.2017	1445	G	W		
GWC-6	08.03.2017	1630	G	W		
GWC-25	08.03.2017	1340	G	W		
GWC-26	08.03.2017	1250	G	W		
GWC-27	08.03.2017	1553	G	W		
GWC-32	08.03.2017	1541	G	W		

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Relinquished by:** \_\_\_\_\_ **Date/Time:** 8-4-17 1515  
 Company: PA

**Relinquished by:** \_\_\_\_\_ **Date/Time:** 8-4-17 1600  
 Company: PA

**Relinquished by:** \_\_\_\_\_ **Date/Time:** 8-5-17 8:20  
 Company: PA

**Cooler Temperature(s) °C and Other Remarks:** 1, 4°C IR3

**Custody Seal No.:** \_\_\_\_\_ **Custody Seals Intact:**  Yes  No



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: Plant Wansley - Gypsum Landfill  
 Site: CCR & State Permit

Sampler: C. Hurdle of, T. Payne TP, P. Harold PH, A. Ellis AVE  
 Lab PM: Whitmire, Cheyenne R  
 Carrier Tracking No(s):  
 Phone:  
 E-Mail: cheyenne.whitmire@testamericainc.com

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, LT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals State Permit (EPA 6020)	As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Sb, Se, Ag, Tl, V, Zn	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of containers	Special Instructions/Note:
GWC-34	08.03.2017	1340	G	W		X		X					1	
GWC-35	08.03.2017	1230	G	W			X						1	
DUP-2	08.03.2017	--	G	W			X						1	
GWC-31	08.04.2017	0930	G	W			X		X				1	
GWC-33	08.04.2017	1000	G	W			X		X				2	
GWC-13	08.04.2017	1035	G	W			X		X				1	
DUP-3	08.04.2017	--	G	W			X		X				1	
GWC-30	08.04.2017	1141	G	W			X		X				1	
FB-3	08.04.2017	1150	G	W			X		X				1	
GWC-7	08.04.2017	1130	G	W			X		X				1	
FERB-2	08.04.2017	1145	G	W			X		X				1	
GWC-15	08.04.2017	1146	G	W			X		X				1	
FERB-3	08.04.2017	1200	G	W			X		X				1	

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 - Na2CO3  
 Q - Na2SO3  
 R - Na2S2O3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - ph 4-5  
 X - other (specify)

Analysis Requested

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:  
 Relinquished by: [Signature]  
 Date/Time: 8/28/17 15:15  
 Company: TA  
 Relinquished by: [Signature]  
 Date/Time: 8-4-17 1600  
 Company: TA  
 Relinquished by: [Signature]  
 Date/Time: 8-5-17 8:20  
 Company: TA  
 Custody Seal No.: 1492 1R2  
 Cooler Temperature(s) °C and Other Remarks:

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-141500-1  
SDG Number: Gypsum Landfill + State Permit

**Login Number: 141500**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	1.4°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").	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 Wansley

TestAmerica Job ID: 400-141500-1  
 SDG: Gypsum Landfill + State Permit

## 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	06-30-18
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	08-31-17
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: 400-142422-1

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

8/31/2017 6:24:54 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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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# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-33

## Lab Sample ID: 400-142422-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	4.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	19		1.0	0.70	mg/L	1		300.0	Total/NA
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-1

## Lab Sample ID: 400-142422-2

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	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",

**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 Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142422-1	GWC-33	Water	08/24/17 15:10	08/26/17 08:34
400-142422-2	FB-1	Ground Water	08/24/17 15:40	08/26/17 08:34

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 08/24/17 15:10**

**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-1**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.89	mg/L			08/30/17 15:16	1
Fluoride	4.2		0.20	0.082	mg/L			08/30/17 15:16	1
Sulfate	19		1.0	0.70	mg/L			08/30/17 15:16	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	82		5.0	3.4	mg/L			08/30/17 15:16	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-1**  
**Date Collected: 08/24/17 15:40**  
**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-2**  
**Matrix: Ground 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			08/30/17 15:39	1
Fluoride	<0.082		0.20	0.082	mg/L			08/30/17 15:39	1
Sulfate	<0.70		1.0	0.70	mg/L			08/30/17 15:39	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			08/30/17 15:16	1

## Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

### 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 Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 08/24/17 15:10**

**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	366346	08/30/17 15:16	JAW	TAL PEN
Total/NA	Analysis	SM 2540C		1	366236	08/30/17 15:16	TET	TAL PEN

**Client Sample ID: FB-1**

**Date Collected: 08/24/17 15:40**

**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-2**

**Matrix: Ground Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	366346	08/30/17 15:39	JAW	TAL PEN
Total/NA	Analysis	SM 2540C		1	366236	08/30/17 15:16	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 Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

## HPLC/IC

### Analysis Batch: 366346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142422-1	GWC-33	Total/NA	Water	300.0	
400-142422-2	FB-1	Total/NA	Ground Water	300.0	
MB 400-366346/4	Method Blank	Total/NA	Water	300.0	
LCS 400-366346/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-366346/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-142424-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-142424-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## General Chemistry

### Analysis Batch: 366236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142422-1	GWC-33	Total/NA	Water	SM 2540C	
400-142422-2	FB-1	Total/NA	Ground Water	SM 2540C	
MB 400-366236/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-366236/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-142259-G-22 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-366346/4**  
**Matrix: Water**  
**Analysis Batch: 366346**

**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			08/30/17 12:37	1
Fluoride	<0.082		0.20	0.082	mg/L			08/30/17 12:37	1
Sulfate	<0.70		1.0	0.70	mg/L			08/30/17 12:37	1

**Lab Sample ID: LCS 400-366346/5**  
**Matrix: Water**  
**Analysis Batch: 366346**

**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	9.62		mg/L		96	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-366346/6**  
**Matrix: Water**  
**Analysis Batch: 366346**

**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	10.0		mg/L		100	90 - 110	0	15
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	15

**Lab Sample ID: 400-142424-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 366346**

**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	2.0		10.0	11.5		mg/L		95	80 - 120
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120
Sulfate	<0.70		10.0	10.9		mg/L		109	80 - 120

**Lab Sample ID: 400-142424-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 366346**

**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	2.0		10.0	11.5		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	11.0		mg/L		110	80 - 120	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-366236/1**  
**Matrix: Water**  
**Analysis Batch: 366236**

**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			08/30/17 15:16	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-1  
 SDG: Plant Wansley Gypsum LF Cells

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 400-366236/2  
 Matrix: Water  
 Analysis Batch: 366236

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: 400-142259-G-22 DU  
 Matrix: Water  
 Analysis Batch: 366236

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	38		38.0		mg/L		0	5

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**TestAmerica Pensacola**

3355 McLeMore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**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: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** A. Ellis, H. Beaugh  
 Lab PM: Whitmire, Cheyenne R.  
 E-Mail: cheyenne.whitmire@testamericainc.com

**Carrier Tracking No(s):**  
**COC No.:**  
**Page:**  
**Job #:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, AS=air)	Preservation Code	Analysis Requested		Total Number of Containers	Special Instructions/Note:
						Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)		
GWC-33	08.24.2017	1510	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	
FB-1	08.24.2017	1540	G	W		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	



400-142422 COC

**Possible Hazard Identification**  
 Non-hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Deliverable Requested:** I, II, III, IV, Other (specify)

**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:**

Relinquished by:	Date:	Company	Method of Shipment:
<i>Johny alby</i>	08/25/2017 / 1700	ERM Company	
<i>Johny alby</i>	8/25/17 1820	ERM Company	
<i>Johny alby</i>	8/26/17 834	ERM Company	

**Custody Seals Intact:**  Yes  No

**Custody Seal No.:** 5.2°C IR7



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-142422-1  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 142422**

**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	5.2°C - IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Metals canceled per client request.
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 Wansley

TestAmerica Job ID: 400-142422-1  
 SDG: Plant Wansley Gypsum LF Cells

## 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	06-30-18
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	08-31-17
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: 400-142422-2

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

9/25/2017 7:44:16 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

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**Job ID: 400-142422-2**

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**Laboratory: TestAmerica Pensacola**

## Narrative

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### Job Narrative 400-142422-2

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-325102. A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to low Yttrium recovery on 400-142424-1DU the batch was put back into in Growth 09/07/2017. T1 time was adjusted to reflect the new start of the decay time.

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# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

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 Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142422-1	GWC-33	Water	08/24/17 15:10	08/26/17 08:34
400-142422-2	FB-1	Water	08/24/17 15:40	08/26/17 08:34

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 08/24/17 15:10**

**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-1**

**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.222		0.0944	0.0965	1.00	0.0998	pCi/L	08/30/17 09:33	09/21/17 08:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					08/30/17 09:33	09/21/17 08:38	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.849		0.289	0.299	1.00	0.384	pCi/L	08/30/17 10:29	09/11/17 10:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					08/30/17 10:29	09/11/17 10:19	1
Y Carrier	89.7		40 - 110					08/30/17 10:29	09/11/17 10:19	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.07		0.304	0.314	5.00	0.384	pCi/L		09/21/17 17:30	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-1**  
**Date Collected: 08/24/17 15:40**  
**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-2**  
**Matrix: Water**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0209	U	0.0312	0.0312	1.00	0.0868	pCi/L	08/30/17 09:33	09/21/17 08:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					08/30/17 09:33	09/21/17 08:39	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.43		0.349	0.373	1.00	0.418	pCi/L	08/30/17 10:29	09/11/17 10:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					08/30/17 10:29	09/11/17 10:17	1
Y Carrier	80.4		40 - 110					08/30/17 10:29	09/11/17 10:17	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	1.41		0.351	0.374	5.00	0.418	pCi/L		09/21/17 17:30	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

## 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 Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 08/24/17 15:10**

**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			325086	08/30/17 09:33	LDE	TAL SL
Total/NA	Analysis	9315		1	328272	09/21/17 08:38	ALD	TAL SL
Total/NA	Prep	PrecSep_0			325102	08/30/17 10:29	LDE	TAL SL
Total/NA	Analysis	9320		1	326639	09/11/17 10:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	328342	09/21/17 17:30	RTM	TAL SL

**Client Sample ID: FB-1**

**Date Collected: 08/24/17 15:40**

**Date Received: 08/26/17 08:34**

**Lab Sample ID: 400-142422-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			325086	08/30/17 09:33	LDE	TAL SL
Total/NA	Analysis	9315		1	328272	09/21/17 08:39	ALD	TAL SL
Total/NA	Prep	PrecSep_0			325102	08/30/17 10:29	LDE	TAL SL
Total/NA	Analysis	9320		1	326639	09/11/17 10:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	328342	09/21/17 17:30	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 Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

## Rad

### Prep Batch: 325086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142422-1	GWC-33	Total/NA	Water	PrecSep-21	
400-142422-2	FB-1	Total/NA	Water	PrecSep-21	
MB 160-325086/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-325086/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-142424-A-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 325102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142422-1	GWC-33	Total/NA	Water	PrecSep_0	
400-142422-2	FB-1	Total/NA	Water	PrecSep_0	
MB 160-325102/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-325102/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-142424-A-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	



# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-325086/1-A**  
**Matrix: Water**  
**Analysis Batch: 328273**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 325086**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02074	U	0.0443	0.0444	1.00	0.0824	pCi/L	08/30/17 09:33	09/21/17 08:44	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					08/30/17 09:33	09/21/17 08:44	1

**Lab Sample ID: LCS 160-325086/2-A**  
**Matrix: Water**  
**Analysis Batch: 328273**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 325086**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	9.60	8.948		0.948	1.00	0.0823	pCi/L	93	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	91.4		40 - 110						

**Lab Sample ID: 400-142424-A-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 328272**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 325086**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0411	U	0.06137	U	0.0589	1.00	0.0897	pCi/L	0.18	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	92.0		40 - 110							

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-325102/1-A**  
**Matrix: Water**  
**Analysis Batch: 326639**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 325102**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.7335		0.261	0.270	1.00	0.349	pCi/L	08/30/17 10:29	09/11/17 10:15	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					08/30/17 10:29	09/11/17 10:15	1
Y Carrier	86.7		40 - 110					08/30/17 10:29	09/11/17 10:15	1

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-325102/2-A**  
**Matrix: Water**  
**Analysis Batch: 326639**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 325102**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.9	14.65		1.58	1.00	0.325	pCi/L	113	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.4		40 - 110
Y Carrier	85.6		40 - 110

**Lab Sample ID: 400-142424-A-1-B DU**  
**Matrix: Water**  
**Analysis Batch: 326639**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 325102**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	1.97		1.336		0.335	1.00	0.361	pCi/L	0.75	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.0		40 - 110
Y Carrier	86.4		40 - 110

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-142424-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 328342**

**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	2.02		1.398		0.340	5.00	0.361	pCi/L	0.72	

TestAmerica Pensacola

3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

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: 404-506-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** A. Ellis, H. Beaugh  
 Lab PM: Whitmire, Cheyenne R.  
 E-Mail: cheyenne.whitmire@testamericainc.com

**Analysis Requested**

Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320	Total Number of Containers	Special Instructions/Note:
X	X	1	1	1	3	
X	X	1	1	1	3	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code	Matrix (W=water, S=solid, O=wastewater, BT=tissue, AS=air)
GWC-33	08.24.2017	1510	G	W	
FB-1	08.24.2017	1540	G	W	

**Possible Hazard Identification**  
 Non-hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Deliverable Requested:** I, II, III, IV, Other (specify)

**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:** *Johny alby* Date: 08/25/2017 1700  
 Company: ERM

**Relinquished by:** *[Signature]* Date: 8/25/17 1820  
 Company: [Signature]

**Relinquished by:** *[Signature]* Date: 8/26/17 834  
 Company: IA

**Custody Seal Intact:**  Yes  No  
 Custody Seal No.: 5.2°C IR7



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-142422-2  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 142422**

**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	5.2°C - IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Accreditation/Certification Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

## 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	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
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	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	06-30-18
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 Wansley

TestAmerica Job ID: 400-142422-2  
SDG: Plant Wansley Gypsum LF Cells

## 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	06-30-17 *
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: 400-142989-1

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

9/30/2017 4:09:43 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

**Job ID: 400-142989-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-142989-1

#### HPLC/IC

Method(s) 300.0: The following samples were diluted due to the low pH of the nitric acid preserved sample: GWC-31 (400-142989-1), GWC-33 (400-142989-2), FB-1 (400-142989-3) and FERB-1 (400-142989-4). Elevated reporting limits (RL) are provided.

Method(s) 300.0: For the following samples, three containers are required and routinely received at the lab for each event: 1 x 250mL w/ nitric (metals); 1 x 1L unpreserved (anions and dissolved solids); 1 x 2L w/ nitric (radium- subcontracted to TA-St. Louis). For job 142989 only the first two referenced bottles were rec'd for the field samples and QC. TestAmerica Pensacola staff removed a portion of the 1L unpreserved prior to shipping the container to the radiological lab in St. Louis, MO where the container was then preserved w/ nitric acid for radium testing. However, the aliquot removed was insufficient to support both dissolved solids and anion testing. A portion of the now preserved St. Louis sample was returned for anion analysis, but required significant dilution in order to maintain instrument integrity.

In order to preclude a recurrence of this circumstance, Pensacola sample control staff have been instructed to ship only the designated container to the subcontract lab unless they receive written authorization with specific instructions including sub-sampling requirements, if any. It is also recommended that all containers for the event be filled, if possible, and submitted for analysis in order to preclude analytical issues. GWC-31 (400-142989-1), GWC-33 (400-142989-2), FB-1 (400-142989-3) and FERB-1 (400-142989-4)

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-31

## Lab Sample ID: 400-142989-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	76	J	100	70	mg/L	100		300.0	Total/NA
Total Dissolved Solids	90		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33

## Lab Sample ID: 400-142989-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-1

## Lab Sample ID: 400-142989-3

No Detections.

## Client Sample ID: FERB-1

## Lab Sample ID: 400-142989-4

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

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 Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142989-1	GWC-31	Water	09/06/17 11:00	09/08/17 08:26
400-142989-2	GWC-33	Water	09/06/17 11:13	09/08/17 08:26
400-142989-3	FB-1	Water	09/06/17 11:15	09/08/17 08:26
400-142989-4	FERB-1	Water	09/06/17 11:30	09/08/17 08:26

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**  
**Date Collected: 09/06/17 11:00**  
**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-1**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<89		100	89	mg/L			09/22/17 19:35	100
Fluoride	<8.2		20	8.2	mg/L			09/22/17 19:35	100
<b>Sulfate</b>	<b>76</b>	<b>J</b>	100	70	mg/L			09/22/17 19:35	100

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>90</b>		5.0	3.4	mg/L			09/09/17 12:51	1

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 09/06/17 11:13**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-2**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<89		100	89	mg/L			09/22/17 17:41	100
Fluoride	<8.2		20	8.2	mg/L			09/22/17 17:41	100
Sulfate	<70		100	70	mg/L			09/22/17 17:41	100

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>58</b>		5.0	3.4	mg/L			09/09/17 12:51	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-1**  
**Date Collected: 09/06/17 11:15**  
**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-3**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<89		100	89	mg/L			09/22/17 18:04	100
Fluoride	<8.2		20	8.2	mg/L			09/22/17 18:04	100
Sulfate	<70		100	70	mg/L			09/22/17 18:04	100

### 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		09/17/17 13:34	09/20/17 22:07	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/17/17 13:34	09/20/17 22:07	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/17/17 13:34	09/20/17 22:07	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/17/17 13:34	09/20/17 22:07	5
Boron	<0.021		0.050	0.021	mg/L		09/17/17 13:34	09/20/17 22:07	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/17/17 13:34	09/20/17 22:07	5
Calcium	<0.13		0.25	0.13	mg/L		09/17/17 13:34	09/20/17 22:07	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/17/17 13:34	09/20/17 22:07	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/17/17 13:34	09/20/17 22:07	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/17/17 13:34	09/20/17 22:07	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/17/17 13:34	09/20/17 22:07	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/17/17 13:34	09/20/17 22:07	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/17/17 13:34	09/20/17 22:07	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/17/17 13:34	09/20/17 22:07	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		09/14/17 15:06	09/18/17 15:03	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			09/09/17 12:51	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FERB-1**

**Date Collected: 09/06/17 11:30**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-4**

**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<89		100	89	mg/L			09/22/17 19:12	100
Fluoride	<8.2		20	8.2	mg/L			09/22/17 19:12	100
Sulfate	<70		100	70	mg/L			09/22/17 19:12	100

### 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		09/17/17 13:34	09/20/17 22:12	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/17/17 13:34	09/20/17 22:12	5
Barium	<0.00049		0.0025	0.00049	mg/L		09/17/17 13:34	09/20/17 22:12	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/17/17 13:34	09/20/17 22:12	5
Boron	<0.021		0.050	0.021	mg/L		09/17/17 13:34	09/20/17 22:12	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/17/17 13:34	09/20/17 22:12	5
Calcium	<0.13		0.25	0.13	mg/L		09/17/17 13:34	09/20/17 22:12	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/17/17 13:34	09/20/17 22:12	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/17/17 13:34	09/20/17 22:12	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/17/17 13:34	09/20/17 22:12	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/17/17 13:34	09/20/17 22:12	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/17/17 13:34	09/20/17 22:12	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/17/17 13:34	09/20/17 22:12	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/17/17 13:34	09/20/17 22:12	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		09/14/17 15:06	09/18/17 15:19	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			09/12/17 12:33	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## 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.

## 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 Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**

**Date Collected: 09/06/17 11:00**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	369165	09/22/17 19:35	JAW	TAL PEN
Total/NA	Analysis	SM 2540C		1	367358	09/09/17 12:51	TET	TAL PEN

**Client Sample ID: GWC-33**

**Date Collected: 09/06/17 11:13**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	369165	09/22/17 17:41	JAW	TAL PEN
Total/NA	Analysis	SM 2540C		1	367358	09/09/17 12:51	TET	TAL PEN

**Client Sample ID: FB-1**

**Date Collected: 09/06/17 11:15**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	369165	09/22/17 18:04	JAW	TAL PEN
Total Recoverable	Prep	3005A			368330	09/17/17 13:34	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	368828	09/20/17 22:07	DRE	TAL PEN
Total/NA	Prep	7470A			368035	09/14/17 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	368469	09/18/17 15:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	367358	09/09/17 12:51	TET	TAL PEN

**Client Sample ID: FERB-1**

**Date Collected: 09/06/17 11:30**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	369165	09/22/17 19:12	JAW	TAL PEN
Total Recoverable	Prep	3005A			368330	09/17/17 13:34	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	368828	09/20/17 22:12	DRE	TAL PEN
Total/NA	Prep	7470A			368035	09/14/17 15:06	JAP	TAL PEN
Total/NA	Analysis	7470A		1	368469	09/18/17 15:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	367642	09/12/17 12:33	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 Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## HPLC/IC

### Analysis Batch: 369165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-1	GWC-31	Total/NA	Water	300.0	
400-142989-2	GWC-33	Total/NA	Water	300.0	
400-142989-3	FB-1	Total/NA	Water	300.0	
400-142989-4	FERB-1	Total/NA	Water	300.0	
MB 400-369165/4	Method Blank	Total/NA	Water	300.0	
LCS 400-369165/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-369165/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-143615-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-143615-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 368035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-3	FB-1	Total/NA	Water	7470A	
400-142989-4	FERB-1	Total/NA	Water	7470A	
MB 400-368035/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-368035/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-142989-3 MS	FB-1	Total/NA	Water	7470A	
400-142989-3 MSD	FB-1	Total/NA	Water	7470A	

### Prep Batch: 368330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-3	FB-1	Total Recoverable	Water	3005A	
400-142989-4	FERB-1	Total Recoverable	Water	3005A	
MB 400-368330/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-368330/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-142934-A-3-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-142934-A-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 368469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-3	FB-1	Total/NA	Water	7470A	368035
400-142989-4	FERB-1	Total/NA	Water	7470A	368035
MB 400-368035/14-A	Method Blank	Total/NA	Water	7470A	368035
LCS 400-368035/15-A	Lab Control Sample	Total/NA	Water	7470A	368035
400-142989-3 MS	FB-1	Total/NA	Water	7470A	368035
400-142989-3 MSD	FB-1	Total/NA	Water	7470A	368035

### Analysis Batch: 368828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-3	FB-1	Total Recoverable	Water	6020	368330
400-142989-4	FERB-1	Total Recoverable	Water	6020	368330
MB 400-368330/1-A ^5	Method Blank	Total Recoverable	Water	6020	368330
LCS 400-368330/2-A	Lab Control Sample	Total Recoverable	Water	6020	368330
400-142934-A-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	368330
400-142934-A-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	368330

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## General Chemistry

### Analysis Batch: 367358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-1	GWC-31	Total/NA	Water	SM 2540C	
400-142989-2	GWC-33	Total/NA	Water	SM 2540C	
400-142989-3	FB-1	Total/NA	Water	SM 2540C	
MB 400-367358/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-367358/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-142989-1 DU	GWC-31	Total/NA	Water	SM 2540C	

### Analysis Batch: 367642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-4	FERB-1	Total/NA	Water	SM 2540C	
MB 400-367642/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-367642/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-143067-E-6 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-369165/4**  
**Matrix: Water**  
**Analysis Batch: 369165**

**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			09/22/17 14:38	1
Fluoride	<0.082		0.20	0.082	mg/L			09/22/17 14:38	1
Sulfate	<0.70		1.0	0.70	mg/L			09/22/17 14:38	1

**Lab Sample ID: LCS 400-369165/5**  
**Matrix: Water**  
**Analysis Batch: 369165**

**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	9.70		mg/L		97	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	9.99		mg/L		100	90 - 110

**Lab Sample ID: LCSD 400-369165/6**  
**Matrix: Water**  
**Analysis Batch: 369165**

**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	9.69		mg/L		97	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	1	15
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	15

**Lab Sample ID: 400-143615-A-3 MS**  
**Matrix: Water**  
**Analysis Batch: 369165**

**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	240	E	10.0	242	E 4	mg/L		68	80 - 120
Fluoride	6.5		10.0	17.5		mg/L		110	80 - 120
Sulfate	230	E	10.0	243	E 4	mg/L		134	80 - 120

**Lab Sample ID: 400-143615-A-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 369165**

**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	240	E	10.0	242	E 4	mg/L		68	80 - 120	0	20
Fluoride	6.5		10.0	17.2		mg/L		107	80 - 120	2	20
Sulfate	230	E	10.0	244	E 4	mg/L		146	80 - 120	1	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-368330/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 368828**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 368330**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		09/17/17 13:34	09/20/17 19:48	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		09/17/17 13:34	09/20/17 19:48	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-368330/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 368828**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 368330**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		09/17/17 13:34	09/20/17 19:48	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		09/17/17 13:34	09/20/17 19:48	5
Boron	<0.021		0.050	0.021	mg/L		09/17/17 13:34	09/20/17 19:48	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		09/17/17 13:34	09/20/17 19:48	5
Calcium	<0.13		0.25	0.13	mg/L		09/17/17 13:34	09/20/17 19:48	5
Chromium	<0.0011		0.0025	0.0011	mg/L		09/17/17 13:34	09/20/17 19:48	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		09/17/17 13:34	09/20/17 19:48	5
Lead	<0.00035		0.0013	0.00035	mg/L		09/17/17 13:34	09/20/17 19:48	5
Lithium	<0.0032		0.0050	0.0032	mg/L		09/17/17 13:34	09/20/17 19:48	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		09/17/17 13:34	09/20/17 19:48	5
Selenium	<0.00024		0.0013	0.00024	mg/L		09/17/17 13:34	09/20/17 19:48	5
Thallium	<0.000085		0.00050	0.000085	mg/L		09/17/17 13:34	09/20/17 19:48	5

**Lab Sample ID: LCS 400-368330/2-A**  
**Matrix: Water**  
**Analysis Batch: 368828**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 368330**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0523		mg/L		105	80 - 120
Arsenic	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0477		mg/L		95	80 - 120
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Boron	0.100	0.0966		mg/L		97	80 - 120
Cadmium	0.0500	0.0528		mg/L		106	80 - 120
Calcium	5.00	4.98		mg/L		100	80 - 120
Chromium	0.0500	0.0529		mg/L		106	80 - 120
Cobalt	0.0500	0.0528		mg/L		106	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0557		mg/L		111	80 - 120
Molybdenum	0.0500	0.0514		mg/L		103	80 - 120
Selenium	0.0500	0.0540		mg/L		108	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

**Lab Sample ID: 400-142934-A-3-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 368828**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 368330**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0550		mg/L		110	75 - 125
Arsenic	<0.00046		0.0500	0.0540		mg/L		108	75 - 125
Barium	0.014		0.0500	0.0637		mg/L		99	75 - 125
Beryllium	<0.00034		0.0500	0.0521		mg/L		104	75 - 125
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125
Cadmium	<0.00034		0.0500	0.0553		mg/L		111	75 - 125
Calcium	3.2		5.00	8.75		mg/L		110	75 - 125
Chromium	<0.0011		0.0500	0.0505		mg/L		101	75 - 125
Cobalt	<0.00040		0.0500	0.0519		mg/L		104	75 - 125
Lead	<0.00035		0.0500	0.0502		mg/L		100	75 - 125
Lithium	<0.0032		0.0500	0.0507		mg/L		101	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-142934-A-3-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 368828**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 368330**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	<0.00085		0.0500	0.0560		mg/L		112	75 - 125
Selenium	<0.00024		0.0500	0.0586		mg/L		117	75 - 125
Thallium	<0.00085		0.0100	0.0108		mg/L		108	75 - 125

**Lab Sample ID: 400-142934-A-3-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 368828**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 368330**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0512		mg/L		102	75 - 125	7	20
Arsenic	<0.00046		0.0500	0.0524		mg/L		105	75 - 125	3	20
Barium	0.014		0.0500	0.0630		mg/L		97	75 - 125	1	20
Beryllium	<0.00034		0.0500	0.0518		mg/L		104	75 - 125	1	20
Boron	<0.021		0.100	0.111		mg/L		111	75 - 125	1	20
Cadmium	<0.00034		0.0500	0.0530		mg/L		106	75 - 125	4	20
Calcium	3.2		5.00	8.60		mg/L		108	75 - 125	2	20
Chromium	<0.0011		0.0500	0.0499		mg/L		100	75 - 125	1	20
Cobalt	<0.00040		0.0500	0.0510		mg/L		102	75 - 125	2	20
Lead	<0.00035		0.0500	0.0504		mg/L		101	75 - 125	0	20
Lithium	<0.0032		0.0500	0.0500		mg/L		100	75 - 125	1	20
Molybdenum	<0.00085		0.0500	0.0506		mg/L		101	75 - 125	10	20
Selenium	<0.00024		0.0500	0.0546		mg/L		109	75 - 125	7	20
Thallium	<0.00085		0.0100	0.0106		mg/L		106	75 - 125	1	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-368035/14-A**  
**Matrix: Water**  
**Analysis Batch: 368469**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 368035**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		09/14/17 14:41	09/18/17 14:31	1

**Lab Sample ID: LCS 400-368035/15-A**  
**Matrix: Water**  
**Analysis Batch: 368469**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 368035**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000974		mg/L		97	80 - 120

**Lab Sample ID: 400-142989-3 MS**  
**Matrix: Water**  
**Analysis Batch: 368469**

**Client Sample ID: FB-1**  
**Prep Type: Total/NA**  
**Prep Batch: 368035**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070		0.00201	0.00192		mg/L		95	80 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 400-142989-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 368469**

**Client Sample ID: FB-1**  
**Prep Type: Total/NA**  
**Prep Batch: 368035**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070		0.00201	0.00193		mg/L		96	80 - 120	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-367358/1**  
**Matrix: Water**  
**Analysis Batch: 367358**

**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			09/09/17 12:51	1

**Lab Sample ID: LCS 400-367358/2**  
**Matrix: Water**  
**Analysis Batch: 367358**

**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	294		mg/L		100	78 - 122

**Lab Sample ID: 400-142989-1 DU**  
**Matrix: Water**  
**Analysis Batch: 367358**

**Client Sample ID: GWC-31**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	90		88.0		mg/L		2	5

**Lab Sample ID: MB 400-367642/1**  
**Matrix: Water**  
**Analysis Batch: 367642**

**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			09/12/17 12:33	1

**Lab Sample ID: LCS 400-367642/2**  
**Matrix: Water**  
**Analysis Batch: 367642**

**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: 400-143067-E-6 DU**  
**Matrix: Water**  
**Analysis Batch: 367642**

**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		372		mg/L		0	5



### Chain of Custody Record

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** Whitmire, Cheyenne R  
**Lab PM:** Whitmire, Cheyenne R  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Due Date Requested:**  
**TAT Requested (days):**  
**PO #:**  
**WO #:**  
**Project #:**  
**SSOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastabil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		TTS - SM 2540C : Cl <sub>2</sub> F <sub>2</sub> SO <sub>4</sub> - EPA 300		Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470		Radium 226 & 228 - SW-846 9315 & 9320		Total Number of containers	Special Instructions/Note:
						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TTS - SM 2540C : Cl <sub>2</sub> F <sub>2</sub> SO <sub>4</sub> - EPA 300	Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470	Radium 226 & 228 - SW-846 9315 & 9320							
GWC-31	09.06.2017	1100	G	W		X	X	X	X	X	X	X	X	X			USE EXTRA SAMPLE FROM ALL BOTTLES TO COMPLETE RADIUM
GWC-33	09.06.2017	1113	G	W		X	X	X	X	X	X	X	X	X			
FB-1	09.06.2017	1115	G	W		X	X	X	X	X	X	X	X	X			
FERB-1	09.06.2017	1130	G	W		X	X	X	X	X	X	X	X	X			



**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:** *J. Abraham* Date: 9/7/2017 1337 Company: ERM  
**Relinquished by:** *J. Abraham* Date: 9/7/17 1340 Company: TA  
**Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seals Intact:**  Yes  No  
 Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 1.5C IBA NH



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-142989-1  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 142989**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	1.5°C - IR2
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 Wansley

TestAmerica Job ID: 400-142989-1  
 SDG: Plant Wansley Gypsum LF Cells

## 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	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
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: 400-142989-2

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

10/11/2017 6:46:31 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through  
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Have a Question?



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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 Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

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**Job ID: 400-142989-2**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-142989-2**

**RAD**

Method(s) PrecSep\_0: Radium 228 prep Batch 160-327098. The following samples were reduced due to limited volume: GWC-31 (400-142989-1), GWC-33 (400-142989-2), FB-1 (400-142989-3) and FERB-1 (400-142989-4).

Method(s) PrecSep-21: Radium 228 Prep Batch 160-327003. The following samples were reduced due to limited volume: GWC-31 (400-142989-1), GWC-33 (400-142989-2), FB-1 (400-142989-3) and FERB-1 (400-142989-4).

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# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

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 Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142989-1	GWC-31	Water	09/06/17 11:00	09/08/17 08:26
400-142989-2	GWC-33	Water	09/06/17 11:13	09/08/17 08:26
400-142989-3	FB-1	Water	09/06/17 11:15	09/08/17 08:26
400-142989-4	FERB-1	Water	09/06/17 11:30	09/08/17 08:26

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**

**Date Collected: 09/06/17 11:00**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-1**

**Matrix: Water**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0662	U	0.0624	0.0627	1.00	0.0936	pCi/L	09/13/17 08:06	10/05/17 08:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					09/13/17 08:06	10/05/17 08:37	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.461		0.291	0.294	1.00	0.447	pCi/L	09/13/17 13:23	09/19/17 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					09/13/17 13:23	09/19/17 10:15	1
Y Carrier	92.7		40 - 110					09/13/17 13:23	09/19/17 10:15	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	0.527		0.298	0.301	5.00	0.447	pCi/L		10/05/17 16:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 09/06/17 11:13**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-2**

**Matrix: Water**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.375		0.112	0.117	1.00	0.0702	pCi/L	09/13/17 08:06	10/05/17 08:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					09/13/17 08:06	10/05/17 08:37	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.445	U	0.300	0.303	1.00	0.467	pCi/L	09/13/17 13:23	09/19/17 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					09/13/17 13:23	09/19/17 10:15	1
Y Carrier	90.5		40 - 110					09/13/17 13:23	09/19/17 10:15	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	0.820		0.320	0.324	5.00	0.467	pCi/L		10/05/17 16:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-1**

**Date Collected: 09/06/17 11:15**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-3**

**Matrix: Water**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0433	U	0.0500	0.0502	1.00	0.0792	pCi/L	09/13/17 08:06	10/05/17 08:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					09/13/17 08:06	10/05/17 08:37	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	0.241	0.242	1.00	0.391	pCi/L	09/13/17 13:23	09/19/17 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					09/13/17 13:23	09/19/17 10:15	1
Y Carrier	90.8		40 - 110					09/13/17 13:23	09/19/17 10:15	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	0.281	U	0.246	0.247	5.00	0.391	pCi/L		10/05/17 16:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FERB-1**

**Date Collected: 09/06/17 11:30**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-4**

**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	0.0178	U	0.0442	0.0442	1.00	0.0853	pCi/L	09/13/17 08:06	10/05/17 08:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					09/13/17 08:06	10/05/17 08:37	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.107	U	0.271	0.271	1.00	0.467	pCi/L	09/13/17 13:23	09/19/17 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					09/13/17 13:23	09/19/17 10:15	1
Y Carrier	90.1		40 - 110					09/13/17 13:23	09/19/17 10:15	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	0.125	U	0.274	0.275	5.00	0.467	pCi/L		10/05/17 16:37	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

## 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 Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**

**Date Collected: 09/06/17 11:00**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			327003	09/13/17 08:06	LDE	TAL SL
Total/NA	Analysis	9315		1	330513	10/05/17 08:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			327098	09/13/17 13:23	LDE	TAL SL
Total/NA	Analysis	9320		1	327826	09/19/17 10:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	330560	10/05/17 16:37	RTM	TAL SL

**Client Sample ID: GWC-33**

**Date Collected: 09/06/17 11:13**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			327003	09/13/17 08:06	LDE	TAL SL
Total/NA	Analysis	9315		1	330513	10/05/17 08:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			327098	09/13/17 13:23	LDE	TAL SL
Total/NA	Analysis	9320		1	327826	09/19/17 10:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	330560	10/05/17 16:37	RTM	TAL SL

**Client Sample ID: FB-1**

**Date Collected: 09/06/17 11:15**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			327003	09/13/17 08:06	LDE	TAL SL
Total/NA	Analysis	9315		1	330513	10/05/17 08:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			327098	09/13/17 13:23	LDE	TAL SL
Total/NA	Analysis	9320		1	327826	09/19/17 10:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	330560	10/05/17 16:37	RTM	TAL SL

**Client Sample ID: FERB-1**

**Date Collected: 09/06/17 11:30**

**Date Received: 09/08/17 08:26**

**Lab Sample ID: 400-142989-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			327003	09/13/17 08:06	LDE	TAL SL
Total/NA	Analysis	9315		1	330513	10/05/17 08:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			327098	09/13/17 13:23	LDE	TAL SL
Total/NA	Analysis	9320		1	327826	09/19/17 10:15	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	330560	10/05/17 16:37	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 Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

## Rad

### Prep Batch: 327003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-1	GWC-31	Total/NA	Water	PrecSep-21	
400-142989-2	GWC-33	Total/NA	Water	PrecSep-21	
400-142989-3	FB-1	Total/NA	Water	PrecSep-21	
400-142989-4	FERB-1	Total/NA	Water	PrecSep-21	
MB 160-327003/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-327003/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-142993-A-1-B DU	Duplicate	Total/NA	Water	PrecSep-21	

### Prep Batch: 327098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142989-1	GWC-31	Total/NA	Water	PrecSep_0	
400-142989-2	GWC-33	Total/NA	Water	PrecSep_0	
400-142989-3	FB-1	Total/NA	Water	PrecSep_0	
400-142989-4	FERB-1	Total/NA	Water	PrecSep_0	
MB 160-327098/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-327098/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-142993-A-1-D DU	Duplicate	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-327003/1-A**  
**Matrix: Water**  
**Analysis Batch: 330402**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 327003**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03547	U	0.0449	0.0450	1.00	0.0744	pCi/L	09/13/17 08:06	10/05/17 06:10	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					09/13/17 08:06	10/05/17 06:10	1

**Lab Sample ID: LCS 160-327003/2-A**  
**Matrix: Water**  
**Analysis Batch: 330402**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 327003**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	9.60	9.789		1.00	1.00	0.0760	pCi/L	102	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	101		40 - 110						

**Lab Sample ID: 400-142993-A-1-B DU**  
**Matrix: Water**  
**Analysis Batch: 330513**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 327003**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0524	U	0.02505	U	0.0338	1.00	0.0562	pCi/L	0.35	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	102		40 - 110							

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-327098/1-A**  
**Matrix: Water**  
**Analysis Batch: 327826**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 327098**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1750	U	0.205	0.206	1.00	0.338	pCi/L	09/13/17 13:23	09/19/17 10:13	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					09/13/17 13:23	09/19/17 10:13	1
Y Carrier	91.2		40 - 110					09/13/17 13:23	09/19/17 10:13	1



# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-142989-2  
 SDG: Plant Wansley Gypsum LF Cells

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: LCS 160-327098/2-A**  
**Matrix: Water**  
**Analysis Batch: 327826**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 327098**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.9	11.42		1.24	1.00	0.313	pCi/L	89	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	92.3		40 - 110

**Lab Sample ID: 400-142993-A-1-D DU**  
**Matrix: Water**  
**Analysis Batch: 327827**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 327098**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.223	U	0.2477	U	0.195	1.00	0.305	pCi/L	0.06	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	91.2		40 - 110

**Chain of Custody Record**

**TestAmerica Pensacola**  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

<p>Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com</p>		<p>Carrier Tracking No(s):</p>		<p>COC No:</p>																													
<p>Sampler:</p>		<p>Phone:</p>		<p>Page:</p>																													
<p>Client Information</p> <p>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: Plant Wansley - Gypsum Landfill Site: CCR</p>		<p>Due Date Requested:</p> <p>TAT Requested (days):</p> <p>PO #:</p> <p>WO #:</p> <p>Project #:</p> <p>SSOW#:</p>		<p>Job #: 400-142989</p> <p>Preservation Codes: M - Hexane 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 Z - other (specify) Other:</p>																													
<p>Analysis Requested</p>		<p>Field Filtered Sample (Yes or No)</p> <p>Perform MS/MSD (Yes or No)</p> <p>TTS - SM 2540C : Cl, F, S, O4 - EPA 300</p> <p>Metals - (Part 257 Appendix III &amp; IV) EPA 6020 &amp; EPA 7470</p> <p>Radium 226 &amp; 228 - SW-846 9315 &amp; 9320</p>		<p>Total Number of containers</p>																													
<p>Sample Identification</p> <table border="1"> <thead> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=wastobol, BT=Tissue, A=Air)</th> <th>Preservation Code</th> </tr> </thead> <tbody> <tr> <td>GWC-31</td> <td>09.06.2017</td> <td>1100</td> <td>G</td> <td>W</td> <td>X</td> </tr> <tr> <td>GWC-33</td> <td>09.06.2017</td> <td>1113</td> <td>G</td> <td>W</td> <td>X</td> </tr> <tr> <td>FB-1</td> <td>09.06.2017</td> <td>1115</td> <td>G</td> <td>W</td> <td>X</td> </tr> <tr> <td>FERB-1</td> <td>09.06.2017</td> <td>1130</td> <td>G</td> <td>W</td> <td>X</td> </tr> </tbody> </table>		Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastobol, BT=Tissue, A=Air)	Preservation Code	GWC-31	09.06.2017	1100	G	W	X	GWC-33	09.06.2017	1113	G	W	X	FB-1	09.06.2017	1115	G	W	X	FERB-1	09.06.2017	1130	G	W	X	<p>Special Instructions/Note: USE EXTRA SAMPLE FROM ALL BOTTLES TO COMPLETE RADIUM</p>	
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastobol, BT=Tissue, A=Air)	Preservation Code																												
GWC-31	09.06.2017	1100	G	W	X																												
GWC-33	09.06.2017	1113	G	W	X																												
FB-1	09.06.2017	1115	G	W	X																												
FERB-1	09.06.2017	1130	G	W	X																												
<p>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</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p>		<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>		<p>Special Instructions/QC Requirements:</p>																													
<p>Empty Kit Relinquished by:</p> <p>Relinquished by: <i>[Signature]</i> Date/Time: 9/7/2017 1337 Company: ERM</p> <p>Relinquished by: <i>[Signature]</i> Date/Time: 9/7/17 1340 Company: TA</p> <p>Relinquished by:</p>		<p>Method of Shipment:</p> <p>Received by: <i>[Signature]</i> Date/Time: 9/7/17 1537 Company: TA</p> <p>Received by: <i>[Signature]</i> Date/Time: 9/8/17 0826 Company: TA</p> <p>Received by:</p>		<p>Cooler Temperature(s) °C and Other Remarks: 1.5C IBA NH</p>																													
<p>Custody Seals Intact: Δ Yes Δ No</p>		<p>Custody Seal No.:</p>		<p>Custody Seal No.:</p>																													



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-142989-2  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 142989**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	1.5°C - IR2
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 Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

## 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	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
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	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	06-30-18
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 Wansley

TestAmerica Job ID: 400-142989-2  
SDG: Plant Wansley Gypsum LF Cells

## 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	06-30-17 *
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: 400-144243-1

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

10/30/2017 10:52:49 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Job ID: 400-144243-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-144243-1

#### HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWA-3 (400-144243-1), GWC-7 (400-144243-11) and GWC-14 (400-144243-20). Elevated reporting limits (RLs) are provided.

#### Metals

Method(s) 6020: The post digestion spike % recovery for Boron and Calcium associated with batch 371403 was outside of control limits.

Method(s) 6020: The post digestion spike % recovery for Calcium associated with batch 371403 was outside of control limits.

Method(s) 7470A: The matrix spike duplicate (MSD) recoveries for preparation batch 371303 and analytical batch 371483 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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWA-29

## Lab Sample ID: 400-144243-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	2.3		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	7.0		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWA-28

## Lab Sample ID: 400-144243-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.7		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWA-4

## Lab Sample ID: 400-144243-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	9.8		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	30		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWA-2

## Lab Sample ID: 400-144243-5

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	1.9		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.2		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-144243-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.96	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.18	J	0.20	0.082	mg/L	1		300.0	Total/NA
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-34

## Lab Sample ID: 400-144243-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.17	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	3.2		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids									Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-34 (Continued)

## Lab Sample ID: 400-144243-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-144243-8

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	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.1		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-5

## Lab Sample ID: 400-144243-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.089	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	21		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	27		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-6

## Lab Sample ID: 400-144243-10

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	11		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	14		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-7

## Lab Sample ID: 400-144243-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.23		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	74		5.0	3.5	mg/L	5		300.0	Total/NA
Calcium	57		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	450		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-9

## Lab Sample ID: 400-144243-12

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	17		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.12		0.050	0.021	mg/L	5		6020	Total
Calcium	19		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: DUP-1

## Lab Sample ID: 400-144243-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.17	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	3.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWA-1

## Lab Sample ID: 400-144243-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	0.73		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-26

## Lab Sample ID: 400-144243-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	1.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-144243-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.2		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.091	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	74		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-10

## Lab Sample ID: 400-144243-17

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	1.2		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	45		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	32		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-11

## Lab Sample ID: 400-144243-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		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
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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-11 (Continued)

## Lab Sample ID: 400-144243-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	210		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-12

## Lab Sample ID: 400-144243-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.20		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.022	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	40		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-144243-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	160		5.0	4.5	mg/L	5		300.0	Total/NA
Sulfate	22		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.95		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	48		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	520		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-144243-21

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	1.4		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.044	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	9.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-17

## Lab Sample ID: 400-144243-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	9.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-2

## Lab Sample ID: 400-144243-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	1.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: FB-1

Lab Sample ID: 400-144243-24

No Detections.

## Client Sample ID: FERB-1

Lab Sample ID: 400-144243-25

No Detections.

## Client Sample ID: GWC-25

Lab Sample ID: 400-144243-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	11		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FB-2

Lab Sample ID: 400-144243-27

No Detections.

## Client Sample ID: GWC-33

Lab Sample ID: 400-144243-28

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	3.9		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	18		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.025	J	0.050	0.021	mg/L	5		6020	Total
Calcium	16		0.25	0.13	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: GWC-8

Lab Sample ID: 400-144243-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.4		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.085	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	28		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	200		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-13

Lab Sample ID: 400-144243-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		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	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.5		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-16

Lab Sample ID: 400-144243-31

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-16 (Continued)

## Lab Sample ID: 400-144243-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	7.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-18

## Lab Sample ID: 400-144243-32

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
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-144243-33

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	0.81	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	7.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-22

## Lab Sample ID: 400-144243-34

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
Calcium	11		0.25	0.13	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-23

## Lab Sample ID: 400-144243-35

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
Calcium	3.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-24

## Lab Sample ID: 400-144243-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	1.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-3

## Lab Sample ID: 400-144243-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	7.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: FERB-2

Lab Sample ID: 400-144243-38

No Detections.

## Client Sample ID: FB-3

Lab Sample ID: 400-144243-39

No Detections.

## Client Sample ID: GWC-20

Lab Sample ID: 400-144243-40

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	0.79	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	9.4		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-21

Lab Sample ID: 400-144243-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-32

Lab Sample ID: 400-144243-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.1		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	3.5		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	8.8		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	15		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-31

Lab Sample ID: 400-144243-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	1.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	19		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	13		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FERB-3

Lab Sample ID: 400-144243-44

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144243-2	GWA-29	Water	10/03/17 11:00	10/05/17 09:01
400-144243-3	GWA-28	Water	10/03/17 13:40	10/05/17 09:01
400-144243-4	GWA-4	Water	10/03/17 12:30	10/05/17 09:01
400-144243-5	GWA-2	Water	10/03/17 15:25	10/05/17 09:01
400-144243-6	GWC-27	Water	10/03/17 16:32	10/05/17 09:01
400-144243-7	GWC-34	Water	10/03/17 11:20	10/05/17 09:01
400-144243-8	GWC-35	Water	10/03/17 13:00	10/05/17 09:01
400-144243-9	GWC-5	Water	10/03/17 11:35	10/05/17 09:01
400-144243-10	GWC-6	Water	10/03/17 13:20	10/05/17 09:01
400-144243-11	GWC-7	Water	10/03/17 15:25	10/05/17 09:01
400-144243-12	GWC-9	Water	10/03/17 14:25	10/05/17 09:01
400-144243-13	DUP-1	Water	10/03/17 00:00	10/05/17 09:01
400-144243-14	GWA-1	Water	10/04/17 13:42	10/06/17 08:28
400-144243-15	GWC-26	Water	10/04/17 09:45	10/06/17 08:28
400-144243-16	GWC-30	Water	10/04/17 16:05	10/06/17 08:28
400-144243-17	GWC-10	Water	10/04/17 12:15	10/06/17 08:28
400-144243-18	GWC-11	Water	10/04/17 13:50	10/06/17 08:28
400-144243-19	GWC-12	Water	10/04/17 11:40	10/06/17 08:28
400-144243-20	GWC-14	Water	10/04/17 14:30	10/06/17 08:28
400-144243-21	GWC-15	Water	10/04/17 15:15	10/06/17 08:28
400-144243-22	GWC-17	Water	10/04/17 11:55	10/06/17 08:28
400-144243-23	DUP-2	Water	10/04/17 00:00	10/06/17 08:28
400-144243-24	FB-1	Water	10/04/17 13:20	10/06/17 08:28
400-144243-25	FERB-1	Water	10/04/17 12:05	10/06/17 08:28
400-144243-26	GWC-25	Water	10/05/17 12:50	10/07/17 09:17
400-144243-27	FB-2	Water	10/05/17 13:30	10/07/17 09:17
400-144243-28	GWC-33	Water	10/05/17 09:35	10/07/17 09:17
400-144243-29	GWC-8	Water	10/05/17 10:00	10/07/17 09:17
400-144243-30	GWC-13	Water	10/05/17 11:30	10/07/17 09:17
400-144243-31	GWC-16	Water	10/05/17 13:00	10/07/17 09:17
400-144243-32	GWC-18	Water	10/05/17 11:40	10/07/17 09:17
400-144243-33	GWC-19	Water	10/05/17 13:00	10/07/17 09:17
400-144243-34	GWC-22	Water	10/05/17 10:43	10/07/17 09:17
400-144243-35	GWC-23	Water	10/05/17 10:40	10/07/17 09:17
400-144243-36	GWC-24	Water	10/05/17 09:05	10/07/17 09:17
400-144243-37	DUP-3	Water	10/05/17 00:00	10/07/17 09:17
400-144243-38	FERB-2	Water	10/05/17 11:00	10/07/17 09:17
400-144243-39	FB-3	Water	10/05/17 10:50	10/07/17 09:17
400-144243-40	GWC-20	Water	10/06/17 10:40	10/07/17 09:17
400-144243-41	GWC-21	Water	10/06/17 10:45	10/07/17 09:17
400-144243-42	GWC-32	Water	10/06/17 09:40	10/07/17 09:17
400-144243-43	GWC-31	Water	10/06/17 09:32	10/07/17 09:17
400-144243-44	FERB-3	Water	10/06/17 09:50	10/07/17 09:17

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-29**

**Date Collected: 10/03/17 11:00**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-2**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			10/14/17 05:13	1
Fluoride	2.3		0.20	0.082	mg/L			10/14/17 05:13	1
Sulfate	7.0		1.0	0.70	mg/L			10/14/17 05:13	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		10/09/17 10:47	10/10/17 17:35	5
Calcium	4.1		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 17:35	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	46		5.0	3.4	mg/L			10/09/17 10:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-28**

**Date Collected: 10/03/17 13:40**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-3**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			10/13/17 14:00	1
Fluoride	1.7		0.20	0.082	mg/L			10/13/17 14:00	1
Sulfate	1.4		1.0	0.70	mg/L			10/13/17 14:00	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		10/09/17 10:47	10/10/17 17:39	5
Calcium	2.7		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 17:39	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			10/09/17 10:38	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-4**  
**Date Collected: 10/03/17 12:30**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-4**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>17</b>		1.0	0.89	mg/L			10/13/17 15:09	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 15:09	1
<b>Sulfate</b>	<b>9.8</b>		1.0	0.70	mg/L			10/13/17 15:09	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		10/09/17 10:47	10/10/17 17:44	5
<b>Calcium</b>	<b>30</b>		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 17:44	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>140</b>		5.0	3.4	mg/L			10/09/17 10:38	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-2**  
**Date Collected: 10/03/17 15:25**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-5**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.7</b>		1.0	0.89	mg/L			10/13/17 15:31	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 15:31	1
<b>Sulfate</b>	<b>1.9</b>		1.0	0.70	mg/L			10/13/17 15:31	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		10/09/17 10:47	10/10/17 17:48	5
<b>Calcium</b>	<b>4.2</b>		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 17:48	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>36</b>		5.0	3.4	mg/L			10/09/17 10:38	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-27**  
**Date Collected: 10/03/17 16:32**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-6**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.96	J	1.0	0.89	mg/L			10/13/17 15:54	1
Fluoride	0.18	J	0.20	0.082	mg/L			10/13/17 15:54	1
Sulfate	<0.70		1.0	0.70	mg/L			10/13/17 15:54	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		10/09/17 10:47	10/10/17 18:15	5
Calcium	1.1		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 18:15	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			10/09/17 10:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-34**

**Date Collected: 10/03/17 11:20**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-7**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			10/13/17 16:17	1
Fluoride	0.17	J	0.20	0.082	mg/L			10/13/17 16:17	1
Sulfate	1.4		1.0	0.70	mg/L			10/13/17 16:17	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		10/09/17 10:47	10/10/17 18:20	5
Calcium	3.2		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 18:20	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16		5.0	3.4	mg/L			10/09/17 10:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-35**

**Date Collected: 10/03/17 13:00**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-8**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.8</b>		1.0	0.89	mg/L			10/13/17 16:40	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 16:40	1
<b>Sulfate</b>	<b>2.5</b>		1.0	0.70	mg/L			10/13/17 16:40	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		10/09/17 10:47	10/10/17 18:24	5
<b>Calcium</b>	<b>2.1</b>		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 18:24	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>26</b>		5.0	3.4	mg/L			10/09/17 12:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-5**  
**Date Collected: 10/03/17 11:35**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-9**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		1.0	0.89	mg/L			10/13/17 17:03	1
Fluoride	0.089	J	0.20	0.082	mg/L			10/13/17 17:03	1
Sulfate	21		1.0	0.70	mg/L			10/13/17 17:03	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		10/09/17 10:47	10/10/17 18:29	5
Calcium	27		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 18:29	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	170		5.0	3.4	mg/L			10/09/17 12:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-6**  
**Date Collected: 10/03/17 13:20**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-10**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.4</b>		1.0	0.89	mg/L			10/13/17 17:48	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 17:48	1
<b>Sulfate</b>	<b>11</b>		1.0	0.70	mg/L			10/13/17 17:48	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		10/09/17 10:47	10/10/17 18:33	5
<b>Calcium</b>	<b>14</b>		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 18:33	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>100</b>		5.0	3.4	mg/L			10/09/17 12:27	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-7**  
**Date Collected: 10/03/17 15:25**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-11**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		1.0	0.89	mg/L			10/13/17 18:11	1
Fluoride	0.23		0.20	0.082	mg/L			10/13/17 18:11	1
Sulfate	74		5.0	3.5	mg/L			10/15/17 01:22	5

**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		10/09/17 10:47	10/10/17 18:38	5
Calcium	57		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 18:38	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		5.0	3.4	mg/L			10/09/17 12:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-9**  
**Date Collected: 10/03/17 14:25**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-12**  
**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			10/13/17 18:34	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 18:34	1
Sulfate	17		1.0	0.70	mg/L			10/13/17 18:34	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.12		0.050	0.021	mg/L		10/09/17 10:30	10/10/17 21:24	5
Calcium	19		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 21:24	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			10/09/17 12:27	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: DUP-1**

**Date Collected: 10/03/17 00:00**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-13**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			10/13/17 19:42	1
Fluoride	0.17	J	0.20	0.082	mg/L			10/13/17 19:42	1
Sulfate	1.4		1.0	0.70	mg/L			10/13/17 19:42	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		10/09/17 10:30	10/10/17 22:09	5
Calcium	3.2		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:09	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18		5.0	3.4	mg/L			10/09/17 10:38	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-1**

**Date Collected: 10/04/17 13:42**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-14**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.7</b>		1.0	0.89	mg/L			10/13/17 20:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 20:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/13/17 20:05	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		10/09/17 10:30	10/10/17 22:14	5
<b>Calcium</b>	<b>0.73</b>		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:14	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>34</b>		5.0	3.4	mg/L			10/09/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-26**

**Date Collected: 10/04/17 09:45**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-15**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.8</b>		1.0	0.89	mg/L			10/13/17 20:28	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 20:28	1
Sulfate	<0.70		1.0	0.70	mg/L			10/13/17 20:28	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		10/09/17 10:30	10/10/17 22:18	5
<b>Calcium</b>	<b>1.8</b>		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:18	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>60</b>		5.0	3.4	mg/L			10/09/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-30**

**Date Collected: 10/04/17 16:05**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-16**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.89	mg/L			10/13/17 20:51	1
Fluoride	0.091	J	0.20	0.082	mg/L			10/13/17 20:51	1
Sulfate	1.2		1.0	0.70	mg/L			10/13/17 20:51	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		10/09/17 10:30	10/10/17 22:23	5
Calcium	3.3		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:23	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			10/09/17 13:31	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-10**

**Date Collected: 10/04/17 12:15**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-17**

**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			10/13/17 21:14	1
Fluoride	1.2		0.20	0.082	mg/L			10/13/17 21:14	1
Sulfate	45		1.0	0.70	mg/L			10/13/17 21:14	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		10/09/17 10:30	10/10/17 22:27	5
Calcium	32		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:27	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			10/09/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-11**

**Date Collected: 10/04/17 13:50**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-18**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.89	mg/L			10/13/17 21:37	1
Fluoride	0.16	J	0.20	0.082	mg/L			10/13/17 21:37	1
Sulfate	<0.70		1.0	0.70	mg/L			10/13/17 21:37	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		10/09/17 10:30	10/10/17 22:32	5
Calcium	16		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:32	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	210		5.0	3.4	mg/L			10/09/17 13:31	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-12**  
**Date Collected: 10/04/17 11:40**  
**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-19**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		1.0	0.89	mg/L			10/13/17 23:53	1
Fluoride	0.20		0.20	0.082	mg/L			10/13/17 23:53	1
Sulfate	22		1.0	0.70	mg/L			10/13/17 23:53	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		10/09/17 10:30	10/10/17 22:59	5
Calcium	40		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 22:59	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			10/09/17 13:31	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-14**

**Date Collected: 10/04/17 14:30**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-20**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>160</b>		5.0	4.5	mg/L			10/15/17 01:45	5
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 01:02	1
<b>Sulfate</b>	<b>22</b>		1.0	0.70	mg/L			10/14/17 01:02	1

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Boron</b>	<b>0.95</b>		0.050	0.021	mg/L		10/09/17 10:30	10/10/17 23:03	5
<b>Calcium</b>	<b>48</b>		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:03	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>520</b>		5.0	3.4	mg/L			10/09/17 13:31	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-15**

**Date Collected: 10/04/17 15:15**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-21**

**Matrix: Water**

### 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			10/14/17 01:25	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 01:25	1
Sulfate	1.4		1.0	0.70	mg/L			10/14/17 01:25	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		10/09/17 10:30	10/10/17 23:08	5
Calcium	9.3		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:08	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-17**

**Date Collected: 10/04/17 11:55**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-22**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.1</b>		1.0	0.89	mg/L			10/14/17 06:21	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 06:21	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 06:21	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		10/09/17 10:30	10/10/17 23:12	5
<b>Calcium</b>	<b>9.1</b>		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:12	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>84</b>		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: DUP-2**

**Date Collected: 10/04/17 00:00**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-23**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>2.8</b>		1.0	0.89	mg/L			10/14/17 01:48	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 01:48	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 01:48	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		10/09/17 10:30	10/10/17 23:17	5
<b>Calcium</b>	<b>1.7</b>		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:17	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>40</b>		5.0	3.4	mg/L			10/09/17 12:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-1**

**Date Collected: 10/04/17 13:20**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-24**

**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			10/14/17 02:10	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 02:10	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 02:10	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		10/09/17 10:30	10/10/17 23:21	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:21	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/10/17 12:24	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FERB-1**

**Date Collected: 10/04/17 12:05**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-25**

**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			10/14/17 03:19	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 03:19	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 03:19	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		10/09/17 10:30	10/10/17 23:26	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:26	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-25**

**Date Collected: 10/05/17 12:50**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-26**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.5</b>		1.0	0.89	mg/L			10/12/17 12:01	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 12:01	1
<b>Sulfate</b>	<b>16</b>		1.0	0.70	mg/L			10/12/17 12:01	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		10/09/17 10:30	10/10/17 23:30	5
<b>Calcium</b>	<b>11</b>		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:30	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>86</b>		5.0	3.4	mg/L			10/10/17 12:24	1

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- 2
- 3
- 4
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- 7
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- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-2**  
**Date Collected: 10/05/17 13:30**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-27**  
**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			10/12/17 12:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 12:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 12:24	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		10/09/17 10:30	10/10/17 23:35	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:35	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/10/17 12:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 10/05/17 09:35**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-28**

**Matrix: Water**

## 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			10/12/17 21:09	1
Fluoride	3.9		0.20	0.082	mg/L			10/12/17 21:09	1
Sulfate	18		1.0	0.70	mg/L			10/12/17 21:09	1

## Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.025	J	0.050	0.021	mg/L		10/09/17 10:30	10/10/17 23:39	5
Calcium	16		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 23:39	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	74		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-8**  
**Date Collected: 10/05/17 10:00**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-29**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.4		1.0	0.89	mg/L			10/12/17 13:33	1
Fluoride	0.085	J	0.20	0.082	mg/L			10/12/17 13:33	1
Sulfate	16		1.0	0.70	mg/L			10/12/17 13:33	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		10/09/17 10:30	10/11/17 00:06	5
Calcium	28		0.25	0.13	mg/L		10/09/17 10:30	10/11/17 00:06	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-13**  
**Date Collected: 10/05/17 11:30**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-30**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			10/12/17 13:56	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/12/17 13:56	1
Sulfate	2.5		1.0	0.70	mg/L			10/12/17 13:56	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		10/09/17 10:30	10/11/17 00:11	5
Calcium	4.5		0.25	0.13	mg/L		10/09/17 10:30	10/11/17 00:11	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-16**  
**Date Collected: 10/05/17 13:00**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-31**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			10/12/17 14:18	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 14:18	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 14:18	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		10/09/17 10:30	10/11/17 00:15	5
<b>Calcium</b>	<b>7.4</b>		0.25	0.13	mg/L		10/09/17 10:30	10/11/17 00:15	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>10</b>		5.0	3.4	mg/L			10/10/17 12:24	1

- 1
- 2
- 3
- 4
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- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-18**

**Date Collected: 10/05/17 11:40**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-32**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			10/12/17 14:41	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 14:41	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 14:41	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		10/09/17 11:21	10/10/17 19:50	5
<b>Calcium</b>	<b>7.3</b>		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 19:50	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>50</b>		5.0	3.4	mg/L			10/11/17 12:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 10
- 11
- 12
- 13
- 14



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-19**

**Date Collected: 10/05/17 13:00**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-33**

**Matrix: Water**

## 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			10/12/17 15:50	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 15:50	1
Sulfate	0.81	J	1.0	0.70	mg/L			10/12/17 15:50	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		10/09/17 11:21	10/10/17 19:54	5
Calcium	7.5		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 19:54	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			10/11/17 12:13	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-22**  
**Date Collected: 10/05/17 10:43**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-34**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			10/12/17 16:12	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 16:12	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 16:12	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		10/09/17 11:21	10/10/17 19:59	5
<b>Calcium</b>	<b>11</b>		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 19:59	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/17 12:13	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-23**  
**Date Collected: 10/05/17 10:40**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-35**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			10/12/17 16:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 16:35	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 16:35	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		10/09/17 11:21	10/10/17 20:03	5
<b>Calcium</b>	<b>3.6</b>		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:03	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>26</b>		5.0	3.4	mg/L			10/11/17 12:13	1

- 1
- 2
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- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-24**

**Date Collected: 10/05/17 09:05**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-36**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.3</b>		1.0	0.89	mg/L			10/12/17 16:58	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 16:58	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 16:58	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		10/09/17 11:21	10/10/17 20:08	5
<b>Calcium</b>	<b>1.4</b>		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:08	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>12</b>		5.0	3.4	mg/L			10/11/17 12:13	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: DUP-3**

**Date Collected: 10/05/17 00:00**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-37**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			10/12/17 17:21	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 17:21	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 17:21	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		10/09/17 11:21	10/10/17 20:12	5
<b>Calcium</b>	<b>7.5</b>		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:12	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>42</b>		5.0	3.4	mg/L			10/10/17 12:24	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FERB-2**  
**Date Collected: 10/05/17 11:00**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-38**  
**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			10/12/17 17:44	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 17:44	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 17:44	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		10/09/17 11:21	10/10/17 20:39	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:39	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/17 12:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FB-3**

**Date Collected: 10/05/17 10:50**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-39**

**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			10/12/17 20:01	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 20:01	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 20:01	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		10/09/17 11:21	10/10/17 20:44	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:44	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/11/17 12:13	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-20**  
**Date Collected: 10/06/17 10:40**  
**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-40**  
**Matrix: Water**

### 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			10/14/17 03:42	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 03:42	1
Sulfate	0.79	J	1.0	0.70	mg/L			10/14/17 03:42	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		10/09/17 11:21	10/10/17 20:48	5
Calcium	9.4		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:48	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/12/17 13:19	1



# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-21**

**Date Collected: 10/06/17 10:45**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-41**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.2</b>		1.0	0.89	mg/L			10/14/17 04:04	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 04:04	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 04:04	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		10/09/17 11:21	10/10/17 20:53	5
<b>Calcium</b>	<b>4.1</b>		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:53	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>70</b>		5.0	3.4	mg/L			10/12/17 13:19	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-32**

**Date Collected: 10/06/17 09:40**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-42**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.89	mg/L			10/14/17 04:27	1
Fluoride	3.5		0.20	0.082	mg/L			10/14/17 04:27	1
Sulfate	8.8		1.0	0.70	mg/L			10/14/17 04:27	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		10/09/17 11:21	10/10/17 20:57	5
Calcium	15		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 20:57	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			10/12/17 13:19	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**

**Date Collected: 10/06/17 09:32**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-43**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.7		1.0	0.89	mg/L			10/16/17 14:01	1
Fluoride	1.6		0.20	0.082	mg/L			10/16/17 14:01	1
Sulfate	19		1.0	0.70	mg/L			10/16/17 14:01	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		10/09/17 11:21	10/10/17 21:02	5
Calcium	13		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 21:02	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/12/17 13:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: FERB-3**

**Date Collected: 10/06/17 09:50**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-44**

**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			10/14/17 04:50	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 04:50	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 04:50	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		10/09/17 11:21	10/10/17 21:06	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 21:06	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			10/12/17 13:19	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## 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.
E	Result exceeded calibration range.
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.

### 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.
E	Result exceeded calibration range.

## 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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWA-29

Date Collected: 10/03/17 11:00

Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 05:13	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 17:35	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

## Client Sample ID: GWA-28

Date Collected: 10/03/17 13:40

Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 14:00	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 17:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

## Client Sample ID: GWA-4

Date Collected: 10/03/17 12:30

Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 15:09	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 17:44	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

## Client Sample ID: GWA-2

Date Collected: 10/03/17 15:25

Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 15:31	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 17:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

## Client Sample ID: GWC-27

Date Collected: 10/03/17 16:32

Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 15:54	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-27**

**Date Collected: 10/03/17 16:32**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	371403	10/10/17 18:15	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

**Client Sample ID: GWC-34**

**Date Collected: 10/03/17 11:20**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 16:17	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 18:20	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

**Client Sample ID: GWC-35**

**Date Collected: 10/03/17 13:00**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 16:40	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 18:24	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

**Client Sample ID: GWC-5**

**Date Collected: 10/03/17 11:35**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 17:03	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 18:29	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

**Client Sample ID: GWC-6**

**Date Collected: 10/03/17 13:20**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 17:48	JAW	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 18:33	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-7

Date Collected: 10/03/17 15:25  
Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 18:11	JAW	TAL PEN
Total/NA	Analysis	300.0		5	371935	10/15/17 01:22	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371122	10/09/17 10:47	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 18:38	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

## Client Sample ID: GWC-9

Date Collected: 10/03/17 14:25  
Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 18:34	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 21:24	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

## Client Sample ID: DUP-1

Date Collected: 10/03/17 00:00  
Date Received: 10/05/17 09:01

## Lab Sample ID: 400-144243-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 19:42	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:09	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	RRC	TAL PEN

## Client Sample ID: GWA-1

Date Collected: 10/04/17 13:42  
Date Received: 10/06/17 08:28

## Lab Sample ID: 400-144243-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 20:05	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:14	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

## Client Sample ID: GWC-26

Date Collected: 10/04/17 09:45  
Date Received: 10/06/17 08:28

## Lab Sample ID: 400-144243-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 20:28	JAW	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-26**

**Date Collected: 10/04/17 09:45**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-15**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:18	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

**Client Sample ID: GWC-30**

**Date Collected: 10/04/17 16:05**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-16**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 20:51	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:23	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

**Client Sample ID: GWC-10**

**Date Collected: 10/04/17 12:15**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-17**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 21:14	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:27	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

**Client Sample ID: GWC-11**

**Date Collected: 10/04/17 13:50**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-18**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 21:37	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:32	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

**Client Sample ID: GWC-12**

**Date Collected: 10/04/17 11:40**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-19**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/13/17 23:53	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 22:59	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-12**

**Date Collected: 10/04/17 11:40**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-19**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

**Client Sample ID: GWC-14**

**Date Collected: 10/04/17 14:30**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-20**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 01:02	TAJ	TAL PEN
Total/NA	Analysis	300.0		5	371935	10/15/17 01:45	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371096	10/09/17 13:31	RRC	TAL PEN

**Client Sample ID: GWC-15**

**Date Collected: 10/04/17 15:15**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-21**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 01:25	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: GWC-17**

**Date Collected: 10/04/17 11:55**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-22**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 06:21	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: DUP-2**

**Date Collected: 10/04/17 00:00**

**Date Received: 10/06/17 08:28**

**Lab Sample ID: 400-144243-23**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 01:48	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:17	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371093	10/09/17 12:27	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: FB-1

Date Collected: 10/04/17 13:20  
Date Received: 10/06/17 08:28

## Lab Sample ID: 400-144243-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 02:10	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:21	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

## Client Sample ID: FERB-1

Date Collected: 10/04/17 12:05  
Date Received: 10/06/17 08:28

## Lab Sample ID: 400-144243-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 03:19	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:26	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

## Client Sample ID: GWC-25

Date Collected: 10/05/17 12:50  
Date Received: 10/07/17 09:17

## Lab Sample ID: 400-144243-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 12:01	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:30	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

## Client Sample ID: FB-2

Date Collected: 10/05/17 13:30  
Date Received: 10/07/17 09:17

## Lab Sample ID: 400-144243-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 12:24	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:35	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

## Client Sample ID: GWC-33

Date Collected: 10/05/17 09:35  
Date Received: 10/07/17 09:17

## Lab Sample ID: 400-144243-28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371785	10/12/17 21:09	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-33**

**Date Collected: 10/05/17 09:35**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-28**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	371403	10/10/17 23:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: GWC-8**

**Date Collected: 10/05/17 10:00**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-29**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 13:33	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/11/17 00:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: GWC-13**

**Date Collected: 10/05/17 11:30**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-30**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 13:56	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/11/17 00:11	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: GWC-16**

**Date Collected: 10/05/17 13:00**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-31**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 14:18	JAW	TAL PEN
Total Recoverable	Prep	3005A			371129	10/09/17 10:30	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/11/17 00:15	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: GWC-18**

**Date Collected: 10/05/17 11:40**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-32**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 14:41	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 19:50	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-144243-33**

Date Collected: 10/05/17 13:00

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 15:50	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 19:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

**Client Sample ID: GWC-22**

**Lab Sample ID: 400-144243-34**

Date Collected: 10/05/17 10:43

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 16:12	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 19:59	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

**Client Sample ID: GWC-23**

**Lab Sample ID: 400-144243-35**

Date Collected: 10/05/17 10:40

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 16:35	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-144243-36**

Date Collected: 10/05/17 09:05

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 16:58	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-144243-37**

Date Collected: 10/05/17 00:00

Matrix: Water

Date Received: 10/07/17 09:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 17:21	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: DUP-3**

**Date Collected: 10/05/17 00:00**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-37**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371285	10/10/17 12:24	RRC	TAL PEN

**Client Sample ID: FERB-2**

**Date Collected: 10/05/17 11:00**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-38**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371581	10/12/17 17:44	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

**Client Sample ID: FB-3**

**Date Collected: 10/05/17 10:50**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-39**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371785	10/12/17 20:01	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:44	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN

**Client Sample ID: GWC-20**

**Date Collected: 10/06/17 10:40**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-40**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 03:42	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

**Client Sample ID: GWC-21**

**Date Collected: 10/06/17 10:45**

**Date Received: 10/07/17 09:17**

**Lab Sample ID: 400-144243-41**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 04:04	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:53	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-144243-42**

**Date Collected: 10/06/17 09:40**

**Matrix: Water**

**Date Received: 10/07/17 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 04:27	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 20:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-144243-43**

**Date Collected: 10/06/17 09:32**

**Matrix: Water**

**Date Received: 10/07/17 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	372053	10/16/17 14:01	JAW	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 21:02	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

**Client Sample ID: FERB-3**

**Lab Sample ID: 400-144243-44**

**Date Collected: 10/06/17 09:50**

**Matrix: Water**

**Date Received: 10/07/17 09:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371846	10/14/17 04:50	TAJ	TAL PEN
Total Recoverable	Prep	3005A			371139	10/09/17 11:21	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 21:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## HPLC/IC

### Analysis Batch: 371581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-26	GWC-25	Total/NA	Water	300.0	
400-144243-27	FB-2	Total/NA	Water	300.0	
400-144243-29	GWC-8	Total/NA	Water	300.0	
400-144243-30	GWC-13	Total/NA	Water	300.0	
400-144243-31	GWC-16	Total/NA	Water	300.0	
400-144243-32	GWC-18	Total/NA	Water	300.0	
400-144243-33	GWC-19	Total/NA	Water	300.0	
400-144243-34	GWC-22	Total/NA	Water	300.0	
400-144243-35	GWC-23	Total/NA	Water	300.0	
400-144243-36	GWC-24	Total/NA	Water	300.0	
400-144243-37	DUP-3	Total/NA	Water	300.0	
400-144243-38	FERB-2	Total/NA	Water	300.0	
MB 400-371581/93	Method Blank	Total/NA	Water	300.0	
LCS 400-371581/94	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371581/95	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144412-B-9 MS	Matrix Spike	Total/NA	Water	300.0	
400-144412-B-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 371785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-28	GWC-33	Total/NA	Water	300.0	
400-144243-39	FB-3	Total/NA	Water	300.0	
MB 400-371785/4	Method Blank	Total/NA	Water	300.0	
LCS 400-371785/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371785/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144243-39 MS	FB-3	Total/NA	Water	300.0	
400-144243-39 MSD	FB-3	Total/NA	Water	300.0	

### Analysis Batch: 371786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-3	GWA-28	Total/NA	Water	300.0	
400-144243-4	GWA-4	Total/NA	Water	300.0	
400-144243-5	GWA-2	Total/NA	Water	300.0	
400-144243-6	GWC-27	Total/NA	Water	300.0	
400-144243-7	GWC-34	Total/NA	Water	300.0	
400-144243-8	GWC-35	Total/NA	Water	300.0	
400-144243-9	GWC-5	Total/NA	Water	300.0	
400-144243-10	GWC-6	Total/NA	Water	300.0	
400-144243-11	GWC-7	Total/NA	Water	300.0	
400-144243-12	GWC-9	Total/NA	Water	300.0	
400-144243-13	DUP-1	Total/NA	Water	300.0	
400-144243-14	GWA-1	Total/NA	Water	300.0	
400-144243-15	GWC-26	Total/NA	Water	300.0	
400-144243-16	GWC-30	Total/NA	Water	300.0	
400-144243-17	GWC-10	Total/NA	Water	300.0	
400-144243-18	GWC-11	Total/NA	Water	300.0	

### Analysis Batch: 371846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-2	GWA-29	Total/NA	Water	300.0	
400-144243-19	GWC-12	Total/NA	Water	300.0	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## HPLC/IC (Continued)

### Analysis Batch: 371846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-20	GWC-14	Total/NA	Water	300.0	
400-144243-21	GWC-15	Total/NA	Water	300.0	
400-144243-22	GWC-17	Total/NA	Water	300.0	
400-144243-23	DUP-2	Total/NA	Water	300.0	
400-144243-24	FB-1	Total/NA	Water	300.0	
400-144243-25	FERB-1	Total/NA	Water	300.0	
400-144243-40	GWC-20	Total/NA	Water	300.0	
400-144243-41	GWC-21	Total/NA	Water	300.0	
400-144243-42	GWC-32	Total/NA	Water	300.0	
400-144243-44	FERB-3	Total/NA	Water	300.0	
MB 400-371846/4	Method Blank	Total/NA	Water	300.0	
LCS 400-371846/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371846/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144243-19 MS	GWC-12	Total/NA	Water	300.0	
400-144243-19 MSD	GWC-12	Total/NA	Water	300.0	

### Analysis Batch: 371935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-11	GWC-7	Total/NA	Water	300.0	
400-144243-20	GWC-14	Total/NA	Water	300.0	
MB 400-371935/4	Method Blank	Total/NA	Water	300.0	
LCS 400-371935/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-371935/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144480-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-144480-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 372053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-43	GWC-31	Total/NA	Water	300.0	
MB 400-372053/4	Method Blank	Total/NA	Water	300.0	
LCS 400-372053/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-372053/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144299-A-14 MS	Matrix Spike	Total/NA	Water	300.0	
400-144299-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 371122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-2	GWA-29	Total Recoverable	Water	3005A	
400-144243-3	GWA-28	Total Recoverable	Water	3005A	
400-144243-4	GWA-4	Total Recoverable	Water	3005A	
400-144243-5	GWA-2	Total Recoverable	Water	3005A	
400-144243-6	GWC-27	Total Recoverable	Water	3005A	
400-144243-7	GWC-34	Total Recoverable	Water	3005A	
400-144243-8	GWC-35	Total Recoverable	Water	3005A	
400-144243-9	GWC-5	Total Recoverable	Water	3005A	
400-144243-10	GWC-6	Total Recoverable	Water	3005A	
400-144243-11	GWC-7	Total Recoverable	Water	3005A	

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Metals (Continued)

### Prep Batch: 371129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-12	GWC-9	Total Recoverable	Water	3005A	
400-144243-13	DUP-1	Total Recoverable	Water	3005A	
400-144243-14	GWA-1	Total Recoverable	Water	3005A	
400-144243-15	GWC-26	Total Recoverable	Water	3005A	
400-144243-16	GWC-30	Total Recoverable	Water	3005A	
400-144243-17	GWC-10	Total Recoverable	Water	3005A	
400-144243-18	GWC-11	Total Recoverable	Water	3005A	
400-144243-19	GWC-12	Total Recoverable	Water	3005A	
400-144243-20	GWC-14	Total Recoverable	Water	3005A	
400-144243-21	GWC-15	Total Recoverable	Water	3005A	
400-144243-22	GWC-17	Total Recoverable	Water	3005A	
400-144243-23	DUP-2	Total Recoverable	Water	3005A	
400-144243-24	FB-1	Total Recoverable	Water	3005A	
400-144243-25	FERB-1	Total Recoverable	Water	3005A	
400-144243-26	GWC-25	Total Recoverable	Water	3005A	
400-144243-27	FB-2	Total Recoverable	Water	3005A	
400-144243-28	GWC-33	Total Recoverable	Water	3005A	
400-144243-29	GWC-8	Total Recoverable	Water	3005A	
400-144243-30	GWC-13	Total Recoverable	Water	3005A	
400-144243-31	GWC-16	Total Recoverable	Water	3005A	
MB 400-371129/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371129/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144243-12 MS	GWC-9	Total Recoverable	Water	3005A	
400-144243-12 MSD	GWC-9	Total Recoverable	Water	3005A	

### Prep Batch: 371139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-32	GWC-18	Total Recoverable	Water	3005A	
400-144243-33	GWC-19	Total Recoverable	Water	3005A	
400-144243-34	GWC-22	Total Recoverable	Water	3005A	
400-144243-35	GWC-23	Total Recoverable	Water	3005A	
400-144243-36	GWC-24	Total Recoverable	Water	3005A	
400-144243-37	DUP-3	Total Recoverable	Water	3005A	
400-144243-38	FERB-2	Total Recoverable	Water	3005A	
400-144243-39	FB-3	Total Recoverable	Water	3005A	
400-144243-40	GWC-20	Total Recoverable	Water	3005A	
400-144243-41	GWC-21	Total Recoverable	Water	3005A	
400-144243-42	GWC-32	Total Recoverable	Water	3005A	
400-144243-43	GWC-31	Total Recoverable	Water	3005A	
400-144243-44	FERB-3	Total Recoverable	Water	3005A	
MB 400-371139/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371139/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144308-E-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144308-E-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 371403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-2	GWA-29	Total Recoverable	Water	6020	371122
400-144243-3	GWA-28	Total Recoverable	Water	6020	371122
400-144243-4	GWA-4	Total Recoverable	Water	6020	371122
400-144243-5	GWA-2	Total Recoverable	Water	6020	371122

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Metals (Continued)

### Analysis Batch: 371403 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-6	GWC-27	Total Recoverable	Water	6020	371122
400-144243-7	GWC-34	Total Recoverable	Water	6020	371122
400-144243-8	GWC-35	Total Recoverable	Water	6020	371122
400-144243-9	GWC-5	Total Recoverable	Water	6020	371122
400-144243-10	GWC-6	Total Recoverable	Water	6020	371122
400-144243-11	GWC-7	Total Recoverable	Water	6020	371122
400-144243-12	GWC-9	Total Recoverable	Water	6020	371129
400-144243-13	DUP-1	Total Recoverable	Water	6020	371129
400-144243-14	GWA-1	Total Recoverable	Water	6020	371129
400-144243-15	GWC-26	Total Recoverable	Water	6020	371129
400-144243-16	GWC-30	Total Recoverable	Water	6020	371129
400-144243-17	GWC-10	Total Recoverable	Water	6020	371129
400-144243-18	GWC-11	Total Recoverable	Water	6020	371129
400-144243-19	GWC-12	Total Recoverable	Water	6020	371129
400-144243-20	GWC-14	Total Recoverable	Water	6020	371129
400-144243-21	GWC-15	Total Recoverable	Water	6020	371129
400-144243-22	GWC-17	Total Recoverable	Water	6020	371129
400-144243-23	DUP-2	Total Recoverable	Water	6020	371129
400-144243-24	FB-1	Total Recoverable	Water	6020	371129
400-144243-25	FERB-1	Total Recoverable	Water	6020	371129
400-144243-26	GWC-25	Total Recoverable	Water	6020	371129
400-144243-27	FB-2	Total Recoverable	Water	6020	371129
400-144243-28	GWC-33	Total Recoverable	Water	6020	371129
400-144243-29	GWC-8	Total Recoverable	Water	6020	371129
400-144243-30	GWC-13	Total Recoverable	Water	6020	371129
400-144243-31	GWC-16	Total Recoverable	Water	6020	371129
400-144243-32	GWC-18	Total Recoverable	Water	6020	371139
400-144243-33	GWC-19	Total Recoverable	Water	6020	371139
400-144243-34	GWC-22	Total Recoverable	Water	6020	371139
400-144243-35	GWC-23	Total Recoverable	Water	6020	371139
400-144243-36	GWC-24	Total Recoverable	Water	6020	371139
400-144243-37	DUP-3	Total Recoverable	Water	6020	371139
400-144243-38	FERB-2	Total Recoverable	Water	6020	371139
400-144243-39	FB-3	Total Recoverable	Water	6020	371139
400-144243-40	GWC-20	Total Recoverable	Water	6020	371139
400-144243-41	GWC-21	Total Recoverable	Water	6020	371139
400-144243-42	GWC-32	Total Recoverable	Water	6020	371139
400-144243-43	GWC-31	Total Recoverable	Water	6020	371139
400-144243-44	FERB-3	Total Recoverable	Water	6020	371139
MB 400-371129/1-A ^5	Method Blank	Total Recoverable	Water	6020	371129
MB 400-371139/1-A ^5	Method Blank	Total Recoverable	Water	6020	371139
LCS 400-371129/2-A	Lab Control Sample	Total Recoverable	Water	6020	371129
LCS 400-371139/2-A	Lab Control Sample	Total Recoverable	Water	6020	371139
400-144243-12 MS	GWC-9	Total Recoverable	Water	6020	371129
400-144243-12 MSD	GWC-9	Total Recoverable	Water	6020	371129
400-144308-E-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	371139
400-144308-E-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	371139

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## General Chemistry

### Analysis Batch: 371088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-2	GWA-29	Total/NA	Water	SM 2540C	
400-144243-3	GWA-28	Total/NA	Water	SM 2540C	
400-144243-4	GWA-4	Total/NA	Water	SM 2540C	
400-144243-5	GWA-2	Total/NA	Water	SM 2540C	
400-144243-6	GWC-27	Total/NA	Water	SM 2540C	
400-144243-7	GWC-34	Total/NA	Water	SM 2540C	
400-144243-13	DUP-1	Total/NA	Water	SM 2540C	
400-144243-3 DU	GWA-28	Total/NA	Water	SM 2540C	

### Analysis Batch: 371093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-8	GWC-35	Total/NA	Water	SM 2540C	
400-144243-9	GWC-5	Total/NA	Water	SM 2540C	
400-144243-10	GWC-6	Total/NA	Water	SM 2540C	
400-144243-11	GWC-7	Total/NA	Water	SM 2540C	
400-144243-12	GWC-9	Total/NA	Water	SM 2540C	
400-144243-23	DUP-2	Total/NA	Water	SM 2540C	
MB 400-371093/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371093/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-8 DU	GWC-35	Total/NA	Water	SM 2540C	
400-144243-9 DU	GWC-5	Total/NA	Water	SM 2540C	

### Analysis Batch: 371096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-14	GWA-1	Total/NA	Water	SM 2540C	
400-144243-15	GWC-26	Total/NA	Water	SM 2540C	
400-144243-16	GWC-30	Total/NA	Water	SM 2540C	
400-144243-17	GWC-10	Total/NA	Water	SM 2540C	
400-144243-18	GWC-11	Total/NA	Water	SM 2540C	
400-144243-19	GWC-12	Total/NA	Water	SM 2540C	
400-144243-20	GWC-14	Total/NA	Water	SM 2540C	
MB 400-371096/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371096/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-15 DU	GWC-26	Total/NA	Water	SM 2540C	
400-144243-18 DU	GWC-11	Total/NA	Water	SM 2540C	

### Analysis Batch: 371285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-21	GWC-15	Total/NA	Water	SM 2540C	
400-144243-22	GWC-17	Total/NA	Water	SM 2540C	
400-144243-24	FB-1	Total/NA	Water	SM 2540C	
400-144243-25	FERB-1	Total/NA	Water	SM 2540C	
400-144243-26	GWC-25	Total/NA	Water	SM 2540C	
400-144243-27	FB-2	Total/NA	Water	SM 2540C	
400-144243-28	GWC-33	Total/NA	Water	SM 2540C	
400-144243-29	GWC-8	Total/NA	Water	SM 2540C	
400-144243-30	GWC-13	Total/NA	Water	SM 2540C	
400-144243-31	GWC-16	Total/NA	Water	SM 2540C	
400-144243-37	DUP-3	Total/NA	Water	SM 2540C	
MB 400-371285/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371285/2	Lab Control Sample	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## General Chemistry (Continued)

### Analysis Batch: 371285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-21 DU	GWC-15	Total/NA	Water	SM 2540C	
400-144243-26 DU	GWC-25	Total/NA	Water	SM 2540C	

### Analysis Batch: 371415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-32	GWC-18	Total/NA	Water	SM 2540C	
400-144243-33	GWC-19	Total/NA	Water	SM 2540C	
400-144243-34	GWC-22	Total/NA	Water	SM 2540C	
400-144243-35	GWC-23	Total/NA	Water	SM 2540C	
400-144243-36	GWC-24	Total/NA	Water	SM 2540C	
400-144243-38	FERB-2	Total/NA	Water	SM 2540C	
400-144243-39	FB-3	Total/NA	Water	SM 2540C	
MB 400-371415/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371415/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-32 DU	GWC-18	Total/NA	Water	SM 2540C	

### Analysis Batch: 371572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-40	GWC-20	Total/NA	Water	SM 2540C	
400-144243-41	GWC-21	Total/NA	Water	SM 2540C	
400-144243-42	GWC-32	Total/NA	Water	SM 2540C	
400-144243-43	GWC-31	Total/NA	Water	SM 2540C	
400-144243-44	FERB-3	Total/NA	Water	SM 2540C	
MB 400-371572/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371572/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-40 DU	GWC-20	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-371581/93**  
**Matrix: Water**  
**Analysis Batch: 371581**

**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			10/12/17 06:42	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 06:42	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 06:42	1

**Lab Sample ID: LCS 400-371581/94**  
**Matrix: Water**  
**Analysis Batch: 371581**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.88		mg/L		99	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

**Lab Sample ID: LCSD 400-371581/95**  
**Matrix: Water**  
**Analysis Batch: 371581**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.83		mg/L		98	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	2	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

**Lab Sample ID: 400-144412-B-9 MS**  
**Matrix: Water**  
**Analysis Batch: 371581**

**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	110	E	10.0	116	E	mg/L			
Fluoride	<0.082		10.0	10.5		mg/L			
Sulfate	63	E	10.0	74.1	E	mg/L			

**Lab Sample ID: 400-144412-B-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 371581**

**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	110	E	10.0	116	E	mg/L				0	20
Fluoride	<0.082		10.0	10.7		mg/L				2	20
Sulfate	63	E	10.0	74.2	E	mg/L				0	20

**Lab Sample ID: MB 400-371785/4**  
**Matrix: Water**  
**Analysis Batch: 371785**

**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			10/12/17 18:52	1
Fluoride	<0.082		0.20	0.082	mg/L			10/12/17 18:52	1
Sulfate	<0.70		1.0	0.70	mg/L			10/12/17 18:52	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-371785/5**  
**Matrix: Water**  
**Analysis Batch: 371785**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.88		mg/L		99	90 - 110
Fluoride	10.0	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

**Lab Sample ID: LCSD 400-371785/6**  
**Matrix: Water**  
**Analysis Batch: 371785**

**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	9.92		mg/L		99	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	1	15
Sulfate	10.0	10.6		mg/L		106	90 - 110	1	15

**Lab Sample ID: 400-144243-39 MS**  
**Matrix: Water**  
**Analysis Batch: 371785**

**Client Sample ID: FB-3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.89		10.0	9.36		mg/L		94	80 - 120
Fluoride	<0.082		10.0	10.2		mg/L		102	80 - 120
Sulfate	<0.70		10.0	10.4		mg/L		104	80 - 120

**Lab Sample ID: 400-144243-39 MSD**  
**Matrix: Water**  
**Analysis Batch: 371785**

**Client Sample ID: FB-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	<0.89		10.0	9.36		mg/L		94	80 - 120	0	20
Fluoride	<0.082		10.0	10.0		mg/L		100	80 - 120	2	20
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120	1	20

**Lab Sample ID: MB 400-371846/4**  
**Matrix: Water**  
**Analysis Batch: 371846**

**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			10/13/17 22:45	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 22:45	1
Sulfate	<0.70		1.0	0.70	mg/L			10/13/17 22:45	1

**Lab Sample ID: LCS 400-371846/5**  
**Matrix: Water**  
**Analysis Batch: 371846**

**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	9.92		mg/L		99	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-371846/6**  
**Matrix: Water**  
**Analysis Batch: 371846**

**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	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	10.5		mg/L		105	90 - 110	1	15

**Lab Sample ID: 400-144243-19 MS**  
**Matrix: Water**  
**Analysis Batch: 371846**

**Client Sample ID: GWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	18		10.0	27.6		mg/L		92	80 - 120
Fluoride	0.20		10.0	10.5		mg/L		103	80 - 120
Sulfate	22		10.0	32.9		mg/L		105	80 - 120

**Lab Sample ID: 400-144243-19 MSD**  
**Matrix: Water**  
**Analysis Batch: 371846**

**Client Sample ID: GWC-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18		10.0	27.6		mg/L		93	80 - 120	0	20
Fluoride	0.20		10.0	10.5		mg/L		103	80 - 120	0	20
Sulfate	22		10.0	33.1		mg/L		106	80 - 120	0	20

**Lab Sample ID: MB 400-371935/4**  
**Matrix: Water**  
**Analysis Batch: 371935**

**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			10/14/17 23:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/14/17 23:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/14/17 23:05	1

**Lab Sample ID: LCS 400-371935/5**  
**Matrix: Water**  
**Analysis Batch: 371935**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.7		mg/L		107	90 - 110

**Lab Sample ID: LCSD 400-371935/6**  
**Matrix: Water**  
**Analysis Batch: 371935**

**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	10.4		mg/L		104	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 Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 400-144480-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 371935**

**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	7.5		10.0	17.1		mg/L		96	80 - 120
Fluoride	0.11	J	10.0	10.5		mg/L		104	80 - 120
Sulfate	40		10.0	50.8	E 4	mg/L		105	80 - 120

**Lab Sample ID: 400-144480-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 371935**

**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	7.5		10.0	17.1		mg/L		96	80 - 120	0	20
Fluoride	0.11	J	10.0	10.3		mg/L		102	80 - 120	2	20
Sulfate	40		10.0	50.9	E 4	mg/L		106	80 - 120	0	20

**Lab Sample ID: MB 400-372053/4**  
**Matrix: Water**  
**Analysis Batch: 372053**

**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			10/16/17 01:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/16/17 01:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/16/17 01:05	1

**Lab Sample ID: LCS 400-372053/5**  
**Matrix: Water**  
**Analysis Batch: 372053**

**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	10.1		mg/L		101	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

**Lab Sample ID: LCSD 400-372053/6**  
**Matrix: Water**  
**Analysis Batch: 372053**

**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	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	2	15
Sulfate	10.0	10.3		mg/L		103	90 - 110	1	15

**Lab Sample ID: 400-144299-A-14 MS**  
**Matrix: Water**  
**Analysis Batch: 372053**

**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	3.3		10.0	13.0		mg/L		97	80 - 120
Fluoride	0.084	J	10.0	10.2		mg/L		102	80 - 120
Sulfate	10		10.0	21.0		mg/L		107	80 - 120

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 400-144299-A-14 MSD**  
**Matrix: Water**  
**Analysis Batch: 372053**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	3.3		10.0	12.8		mg/L		96	80 - 120	1	20
Fluoride	0.084	J	10.0	10.4		mg/L		104	80 - 120	2	20
Sulfate	10		10.0	21.0		mg/L		106	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-371129/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371129**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.021		0.050	0.021	mg/L		10/09/17 10:30	10/10/17 21:15	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 10:30	10/10/17 21:15	5

**Lab Sample ID: LCS 400-371129/2-A**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371129**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier				Limits	
Boron	0.100	0.106		mg/L		106	80 - 120	
Calcium	5.00	4.89		mg/L		98	80 - 120	

**Lab Sample ID: 400-144243-12 MS**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: GWC-9**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371129**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				Limits	
Boron	0.12		0.100	0.224		mg/L		107	75 - 125	
Calcium	19		5.00	23.8		mg/L		104	75 - 125	

**Lab Sample ID: 400-144243-12 MSD**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: GWC-9**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371129**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Boron	0.12		0.100	0.224		mg/L		107	75 - 125	0	20
Calcium	19		5.00	23.6		mg/L		100	75 - 125	1	20

**Lab Sample ID: MB 400-371139/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371139**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.021		0.050	0.021	mg/L		10/09/17 11:21	10/10/17 18:47	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 11:21	10/10/17 18:47	5

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 400-371139/2-A**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371139**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	0.100	0.105		mg/L		105	80 - 120
Calcium	5.00	4.88		mg/L		98	80 - 120

**Lab Sample ID: 400-144308-E-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371139**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	0.14		0.100	0.252		mg/L		117	75 - 125
Calcium	210	E	5.00	210	E 4	mg/L		87	75 - 125

**Lab Sample ID: 400-144308-E-1-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371139**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	0.14		0.100	0.252		mg/L		116	75 - 125	0	20
Calcium	210	E	5.00	213	E 4	mg/L		149	75 - 125	1	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: 400-144243-3 DU**  
**Matrix: Water**  
**Analysis Batch: 371088**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	70		70.0		mg/L		0	5

**Lab Sample ID: MB 400-371093/1**  
**Matrix: Water**  
**Analysis Batch: 371093**

**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			10/09/17 12:27	1

**Lab Sample ID: LCS 400-371093/2**  
**Matrix: Water**  
**Analysis Batch: 371093**

**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	286		mg/L		98	78 - 122

**Lab Sample ID: 400-144243-8 DU**  
**Matrix: Water**  
**Analysis Batch: 371093**

**Client Sample ID: GWC-35**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	26		26.0		mg/L		0	5

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: 400-144243-9 DU**  
**Matrix: Water**  
**Analysis Batch: 371093**

**Client Sample ID: GWC-5**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	170		172		mg/L		0	5

**Lab Sample ID: MB 400-371096/1**  
**Matrix: Water**  
**Analysis Batch: 371096**

**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			10/09/17 13:31	1

**Lab Sample ID: LCS 400-371096/2**  
**Matrix: Water**  
**Analysis Batch: 371096**

**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	290		mg/L		99	78 - 122

**Lab Sample ID: 400-144243-15 DU**  
**Matrix: Water**  
**Analysis Batch: 371096**

**Client Sample ID: GWC-26**  
**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: 400-144243-18 DU**  
**Matrix: Water**  
**Analysis Batch: 371096**

**Client Sample ID: GWC-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	210		208		mg/L		0	5

**Lab Sample ID: MB 400-371285/1**  
**Matrix: Water**  
**Analysis Batch: 371285**

**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			10/10/17 12:24	1

**Lab Sample ID: LCS 400-371285/2**  
**Matrix: Water**  
**Analysis Batch: 371285**

**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: 400-144243-21 DU**  
**Matrix: Water**  
**Analysis Batch: 371285**

**Client Sample ID: GWC-15**  
**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

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-1  
SDG: Plant Wansley Gypsum LF Cells

**Lab Sample ID: 400-144243-26 DU**  
**Matrix: Water**  
**Analysis Batch: 371285**

**Client Sample ID: GWC-25**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	86		86.0		mg/L		0	5

**Lab Sample ID: MB 400-371415/1**  
**Matrix: Water**  
**Analysis Batch: 371415**

**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			10/11/17 12:13	1

**Lab Sample ID: LCS 400-371415/2**  
**Matrix: Water**  
**Analysis Batch: 371415**

**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: 400-144243-32 DU**  
**Matrix: Water**  
**Analysis Batch: 371415**

**Client Sample ID: GWC-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	50		50.0		mg/L		0	5

**Lab Sample ID: MB 400-371572/1**  
**Matrix: Water**  
**Analysis Batch: 371572**

**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			10/12/17 13:19	1

**Lab Sample ID: LCS 400-371572/2**  
**Matrix: Water**  
**Analysis Batch: 371572**

**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: 400-144243-40 DU**  
**Matrix: Water**  
**Analysis Batch: 371572**

**Client Sample ID: GWC-20**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	120		120		mg/L		0	5

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 400-682-15-27703.5

681-Atlanta

<b>Client Information</b>		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 2	
Company: Southern Company		Address: PO BOX 2641 GSC8		City: Birmingham	
State, Zip: AL, 35291		Phone:		Due Date Requested:	
Email: JAbraham@southernco.com		Project Name: CCR - Plant Wansley		TAT Requested (days):	
Site: Georgia		SSOW#:		PO #: SCS10347656	
WO #:		Project #:		WO #:	
Sample Identification		Sample Date		Sample Time	
Sample Type (C=Comp, G=grab)		Sample Time		Sample Time	
Matrix (Water, Solid, Other)		Sample Time		Sample Time	
Preservation Code		Sample Time		Sample Time	
Field Filtered Sample (Yes or No)		Sample Time		Sample Time	
90% Green-Colum		Sample Time		Sample Time	
ZSUC, 300-ORFM, 300		Sample Time		Sample Time	
TDS SM2540C, CFFSO4, EPA 800		Sample Time		Sample Time	
METALS PER 254 APP III - 6000		Sample Time		Sample Time	
Analysis Requested		Sample Time		Sample Time	
Preservation Codes:		Sample Time		Sample Time	
M - Hexane		Sample Time		Sample Time	
N - None		Sample Time		Sample Time	
D - As2O3		Sample Time		Sample Time	
P - Na2O4S		Sample Time		Sample Time	
Q - Nitric Acid		Sample Time		Sample Time	
E - NaHSO4		Sample Time		Sample Time	
F - MeOH		Sample Time		Sample Time	
R - Na2SO3		Sample Time		Sample Time	
S - H2SO4		Sample Time		Sample Time	
G - Amchlor		Sample Time		Sample Time	
H - Ascorbic Acid		Sample Time		Sample Time	
U - Acetone		Sample Time		Sample Time	
V - MCAA		Sample Time		Sample Time	
W - pH 4.5		Sample Time		Sample Time	
L - EDA		Sample Time		Sample Time	
Other:		Sample Time		Sample Time	
Special Instructions/Note:		Sample Time		Sample Time	
Total Number of Containers		Sample Time		Sample Time	
GWA-29		10-3-17		1100	
GWA-28		10-3-17		1340	
GWA-4		10-3-17		1230	
GWA-2		10-3-17		1525	
GWC-27		10-3-17		1632	
GWC-34		10-3-17		1120	
GWC-35		10-3-17		1300	
GWC-5		10-3-17		1135	
GWC-6		10-3-17		1320	
GWC-7		10-3-17		1525	
GWC-9		10-3-17		1425	
Possible Hazard Identification		Sample Time		Sample Time	
<input type="checkbox"/> Non-Hazard		Sample Time		Sample Time	
<input type="checkbox"/> Flammable		Sample Time		Sample Time	
<input type="checkbox"/> Skin Irritant		Sample Time		Sample Time	
<input type="checkbox"/> Poison B		Sample Time		Sample Time	
<input type="checkbox"/> Unknown		Sample Time		Sample Time	
<input type="checkbox"/> Radiological		Sample Time		Sample Time	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Time		Sample Time	
Empty Kit Relinquished by:		Sample Time		Sample Time	
Relinquished by:		Date:		Date:	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Custody Seal No.:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab	
Special Instructions/QC Requirements:		Method of Shipment:		Archive For	
Received by:		Date/Time:		Date/Time:	
Received by:		Date/Time:		Date/Time:	
Received by:		Date/Time:		Date/Time:	
Company:		Company:		Company:	



**TestAmerica Pensacola**  
 3355 McLemore Drive  
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**Chain of Custody Record**

**TestAmerica**  
THE TESTAMERICA LABORATORY SYSTEM

681-Atlanta

<b>Client Information</b> 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 Wansley Site: Georgia		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Sampler: Phone: Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007709 SSOV#:		Game Tracking No(s): COC No: 400-68215-27703.6 Page: <i>Page 6 of 7</i> Job #: <i>2 of 2</i>	
<b>Analysis Requested</b> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Matrix (Hexane, None, Acetate, Nitric Acid, MeOH, Amlchlor, Ascorbic Acid, Ice, DI Water, EDTA, EDA, other)					
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amlchlor 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 Dodecalhydrate U - Acetone V - MCAA W - PH 4.5 Z - other (specify)					
<b>Sample Identification</b> Sample Date: 10-3-17 Sample Time: - 4 Sample Type (C=Comp, G=grab) Matrix (Hexane, None, Acetate, Nitric Acid, MeOH, Amlchlor, Ascorbic Acid, Ice, DI Water, EDTA, EDA, other) Special Instructions/Note:					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: Relinquished by: <i>Samuel...</i> Date/Time: 10-4-17 1200 Company: <i>ERM</i>					
Relinquished by: <i>...</i> Date/Time: 10-4-17 1600 Company:					
Relinquished by: Date/Time: 10-5-17 0901 Company:					
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No					



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information  
 Client Contact: Joju Abraham  
 Company: Southern Company  
 Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-508-7239  
 Email: JAbraham@southernco.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

Sampler: Whitmire, Cheyenne R.  
 Lab P/N: Whitmire, Cheyenne R.  
 Phone: cheyenne.whitmire@testamericainc.com  
 E-Mail: cheyenne.whitmire@testamericainc.com

Carrier Tracking No(s):  
 COC No:  
 Page:  
 Job #:

Analysis Requested  
 Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSOW#:

Sample Identification	Sample Date	Sample Time (C=Comp, G=grab)	Sample Type (Water, Solid, Composite, etc.)	Matrix (Water, Solid, Composite, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)			Perform MS/MSD (Yes or No)			Metals - (Part 257 Appendix III) EPA 6020; Ba & Ca			Total Number of Containers	Special Instructions/Note:
						Y	N	U	Y	N	U	Y	N	U		
GWA-1	10.4.17	1342	G	W		X			X			X		2		
GWC-28	10.4.17	0945	G	W		X			X			X		2		
GWC-30	10.4.17	1605	G	W		X			X			X		2		
GWC-10	10.4.17	1215	G	W		X			X			X		2		
GWC-11	10.4.17	1350	G	W		X			X			X		2		
GWC-12	10.4.17	1140	G	W		X			X			X		2		
GWC-14	10.4.17	1430	G	W		X			X			X		2		
GWC-15	10.4.17	1515	G	W		X			X			X		2		
GWC-17	10.4.17	1155	G	W		X			X			X		2		
DUP-2	10.4.17	-	G	W		X			X			X		2		
FB-1	10.4.17	1320	G	W		X			X			X		2		
FERB-1	10.4.17	1205	G	W		X			X			X		2		

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements:

Method of Shipment:  
 Date: 10/5/17 1200  
 Received by: [Signature] Company: ERM  
 Date: 10/5/17 1645  
 Received by: [Signature] Company: TA  
 Date: 10/5/17 828  
 Received by: [Signature] Company: TA  
 Cooler Temperature(s) and Other Remarks: 1.5°C, 0.0°C IR8



**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: Lab Pkt: Whitfire, Cheyenne R Carrier Tracking No(s):  
 Phone: E-Mail: cheyenne.whitfire@testamerica.com Page:  
 Company: Southern Company Job #:

Address: 241 Ralph McGill Blvd SE B10185  
 City: Atlanta  
 State, Zip: GA, 30308  
 Phone: 404-508-7239  
 Email: JAbraham@southern.com  
 Project Name: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Analysis Requested**

Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (Heavy, Break, Composite, Other)	Preservation Code:	Field Filtered Sample (Yes or No)			Perform MS/MSD (Yes or No)			Total Number of Containers	Special Instructions/Notes:
						TDS - SM 2640C	CF, SO4 - EPA 300	I, D	Metals - (Part 257 Appendix III) EPA 6020; Ba & Ca	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)		
GWC-25	10.5.17	1250	G	W		X	X	X	X	X	2		
FB-2	10.5.17	1330	G	W		X	X	X	X	X	2		
GWC-33	10.5.17	0835	G	W		X	X	X	X	X	2		
GWC-8	10.5.17	1000	G	W		X	X	X	X	X	2		
GWC-13	10.5.17	1130	G	W		X	X	X	X	X	2		
GWC-16	10.5.17	1300	G	W		X	X	X	X	X	2		
GWC-18	10.5.17	1140	G	W		X	X	X	X	X	2		
GWC-19	10.5.17	1300	G	W		X	X	X	X	X	2		
GWC-22	10.5.17	1043	G	W		X	X	X	X	X	2		
GWC-23	10.5.17	1040	G	W		X	X	X	X	X	2		
GWC-24	10.5.17	0805	G	W		X	X	X	X	X	2		
DUP-3	10.5.17	-	G	W		X	X	X	X	X	2		



**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

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: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 10/17/17 9:17 Company: ERM Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: TA Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_ Company

Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks: 0.0°C, 3.0°C IRB





**TestAmerica Pensacola**  
 3355 McInemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR

**Sampler:** Lab PM: Whitmire, Cheyenne R  
 E-Mail: cheyenne.whitmire@testamericainc.com

**Carrier Tracking Note(s):**

**Analysis Requested**

Due Date Requested:  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #:  
 SSCW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Oil, Sludge, Air, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	TDS - SM 2540C : Cl, F, SO4 - EPA 300	Metals - (Part 267 Appendix III) EPA 6020: Ba & Ca	Total Number of Containers	Special Instructions/Note:
GWC-20	10.6.17	1040	G	W		X	X	X	X	2	
GWC-21	10.6.17	1045	G	W		X	X	X	X	2	
GWC-32	10.6.17	0940	G	W		X	X	X	X	2	
GWC-31	10.6.17	0932	G	W		X	X	X	X	2	
FERB-3	10.6.17	0950	G	W		X	X	X	X	2	

**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: *Victoria M...* Date: 10-6-17 1050  
 Relinquished by: *John* Date: 10/6/17 Mos  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: 10/6/17 1656  
 Received by: \_\_\_\_\_ Date/Time: 10/7/17 917  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Company: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 0.0°C 3.0°C IZ9



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144243-1  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 144243**

**List Number: 1**

**Creator: Edwards, Robin S**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 0.0°C IR-7; 0.0°C, 3.0°C, 1.5°C, 0.0°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?	False	
There are no discrepancies between the containers received and the COC.	False	COC lists Ba(rium), but should be B(oron).
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 Wansley

TestAmerica Job ID: 400-144243-1  
 SDG: Plant Wansley Gypsum LF Cells

## 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	10-31-17
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: 400-144243-2

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

11/6/2017 6:16:44 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

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Have a Question?



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[www.testamericainc.com](http://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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# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

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 Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144243-45	GWC-31	Water	10/05/17 12:15	10/07/17 08:50

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-2  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**

**Date Collected: 10/05/17 12:15**

**Date Received: 10/07/17 08:50**

**Lab Sample ID: 400-144243-45**

**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	0.146	U	0.117	0.117	1.00	0.170	pCi/L	10/11/17 09:46	11/02/17 04:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	43.7		40 - 110					10/11/17 09:46	11/02/17 04:56	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.953		0.614	0.620	1.00	0.952	pCi/L	10/11/17 10:31	10/20/17 13:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	43.7		40 - 110					10/11/17 10:31	10/20/17 13:47	1
Y Carrier	85.2		40 - 110					10/11/17 10:31	10/20/17 13:47	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	1.10		0.625	0.631	5.00	0.952	pCi/L		11/06/17 09:01	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

## 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 Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-31**

**Date Collected: 10/05/17 12:15**

**Date Received: 10/07/17 08:50**

**Lab Sample ID: 400-144243-45**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			331363	10/11/17 09:46	LDE	TAL SL
Total/NA	Analysis	9315		1	335318	11/02/17 04:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			331371	10/11/17 10:31	LDE	TAL SL
Total/NA	Analysis	9320		1	332858	10/20/17 13:47	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	335780	11/06/17 09:01	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 Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

## Rad

### Prep Batch: 331363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-45	GWC-31	Total/NA	Water	PrecSep-21	
MB 160-331363/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-331363/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
280-101922-C-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
280-101922-D-2-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	

### Prep Batch: 331371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-45	GWC-31	Total/NA	Water	PrecSep_0	
MB 160-331371/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-331371/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
280-101922-C-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
280-101922-D-2-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-331363/1-A**  
**Matrix: Water**  
**Analysis Batch: 335318**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 331363**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02210	U	0.0428	0.0428	1.00	0.0773	pCi/L	10/11/17 09:46	11/02/17 04:56	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					10/11/17 09:46	11/02/17 04:56	1

**Lab Sample ID: LCS 160-331363/2-A**  
**Matrix: Water**  
**Analysis Batch: 335318**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 331363**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	9.860		1.01	1.00	0.0777	pCi/L	87	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	102		40 - 110						

**Lab Sample ID: 280-101922-C-2-A MSD**  
**Matrix: Water**  
**Analysis Batch: 335318**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 331363**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.116		11.4	10.98		1.13	1.00	0.0835	pCi/L	97	75 - 138	0.38	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Ba Carrier	93.5		40 - 110										

**Lab Sample ID: 280-101922-D-2-A MS**  
**Matrix: Water**  
**Analysis Batch: 335318**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 331363**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.116		11.4	10.16		1.05	1.00	0.0661	pCi/L	89	75 - 138
Carrier	MS %Yield	MS Qualifier	Limits								
Ba Carrier	95.9		40 - 110								

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-331371/1-A**  
**Matrix: Water**  
**Analysis Batch: 332858**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 331371**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1070	U	0.219	0.219	1.00	0.373	pCi/L	10/11/17 10:31	10/20/17 13:47	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	103		40 - 110		10/11/17 10:31	10/20/17 13:47	1			
Y Carrier	86.7		40 - 110		10/11/17 10:31	10/20/17 13:47	1			

**Lab Sample ID: LCS 160-331371/2-A**  
**Matrix: Water**  
**Analysis Batch: 332858**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 331371**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	12.8	12.73		1.38	1.00	0.360	pCi/L	100	56 - 140
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Ba Carrier	102		40 - 110						
Y Carrier	86.7		40 - 110						

**Lab Sample ID: 280-101922-C-2-B MSD**  
**Matrix: Water**  
**Analysis Batch: 332858**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 331371**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
						Uncert. (2σ+/-)							
Radium-228	0.393	U	12.8	15.34		1.65	1.00	0.402	pCi/L	117	45 - 150	0.62	1
Carrier	MSD MSD		Limits		Prepared	Analyzed	Dil Fac						
	%Yield	Qualifier											
Ba Carrier	93.5		40 - 110										
Y Carrier	84.1		40 - 110										

**Lab Sample ID: 280-101922-D-2-B MS**  
**Matrix: Water**  
**Analysis Batch: 332858**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 331371**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
						Uncert. (2σ+/-)					
Radium-228	0.393	U	12.8	13.41		1.47	1.00	0.423	pCi/L	102	45 - 150
Carrier	MS MS		Limits		Prepared	Analyzed	Dil Fac				
	%Yield	Qualifier									
Ba Carrier	95.9		40 - 110								
Y Carrier	84.1		40 - 110								

65 McLemore Drive  
Pensacola, FL 32514  
Phone (850) 474-1001 Fax (850) 478-2671

**Client Information**

Client Contact:  
Ju Abraham

Company:  
Lithern Company

Address:  
1 Ralph McGill Blvd SE B10185

City:  
Tallahassee

State:  
FL

Zip:  
32308

Phone:  
904-506-7239

Fax:  
904-506-7239

Email:  
j.abraham@southernco.com

Project Name:  
Plant Wansley - Gypsum Landfill

Project #:  
CCR

SSOW#:  
CCR

Carrier Tracking No(s):

GOC No:

Page:

Job #:

Lab PM:

Whitire, Cheyenne R

E-Mail:

cheyenne.whitire@testamericainc.com

**Analysis Requested**

TDS - SM 2540C : Cl, F, SO4 - EPA 300  
Metals - (Part 257 Appendix III & IV) EPA 6020 & EPA 7470  
Radium 226 & 228 - SW-846 9315 & 9320

**Preservation Codes:**

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NH4SCN
- F - MeOH
- G - Amchlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- Other:
- M - Hexane
- N - None
- O - AsNaCO2
- P - Na2OAS
- Q - Na2SO3
- R - Na2SSO3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4-5
- Z - other (specify)

**Special Instructions/Note:**

400-144243 Chain of Custody



Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=pesticide, A=air)
10.5.17	1215	G	W

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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:**

**Received by:** [Signature] **Date:** 10-9-17  
**Received by:** [Signature] **Date:** 10/6/17  
**Received by:** [Signature] **Date:** 10/6/17

**Company:** Lithern Company

**Method of Shipment:**

**Cooler Temperature(s) °C and Other Remarks:**





## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144243-2

SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 144243**

**List Number: 1**

**Creator: Edwards, Robin S**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 0.0°C IR-7; 0.0°C, 3.0°C, 1.5°C, 0.0°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?	False	
There are no discrepancies between the containers received and the COC.	False	COC lists Ba(rium), but should be B(oron).
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: 400-144243-2  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 144243**  
**List Number: 2**  
**Creator: Daniels, Brian J**

**List Source: TestAmerica St. Louis**  
**List Creation: 10/10/17 04:02 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	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 Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

## 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 Wansley

TestAmerica Job ID: 400-144243-2  
SDG: Plant Wansley Gypsum LF Cells

## 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

# 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: 400-144243-3

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

Sampling Event: Gypsum

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

10/27/2017 11:04:35 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto: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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

**Job ID: 400-144243-3**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-144243-3

#### HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: GWA-3 (400-144243-1). Elevated reporting limits (RLs) are provided.

#### Metals

Method(s) 6020: The post digestion spike % recovery for Boron and Calcium associated with batch 371403 was outside of control limits.

Method(s) 6020: The reporting limit check (CRI) for analytical batch 371403 contained Lithium above acceptance criteria. All reported samples associated with this CRI were ND for this analyte; therefore, re-analysis of samples was not performed. GWA-3 (400-144243-1) and (MB 400-371122/1-A ^5)

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 371122 and analytical batch 371403 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 duplicate (MSD) recoveries for preparation batch 371303 and analytical batch 371483 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.



# Detection Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
 SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-3**

**Lab Sample ID: 400-144243-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	150		5.0	3.5	mg/L	5		300.0	Total/NA
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	91		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	J	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	410		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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144243-1	GWA-3	Water	10/03/17 14:40	10/05/17 09:01

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-3**  
**Date Collected: 10/03/17 14:40**  
**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-1**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>9.5</b>		1.0	0.89	mg/L			10/13/17 12:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 12:29	1
<b>Sulfate</b>	<b>150</b>		5.0	3.5	mg/L			10/14/17 05:59	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		10/24/17 16:50	10/10/17 17:30	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/24/17 16:50	10/10/17 17:30	5
<b>Barium</b>	<b>0.038</b>		0.0025	0.00049	mg/L		10/24/17 16:50	10/10/17 17:30	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/24/17 16:50	10/10/17 17:30	5
Boron	<0.021		0.050	0.021	mg/L		10/24/17 16:50	10/10/17 17:30	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/24/17 16:50	10/10/17 17:30	5
<b>Calcium</b>	<b>91</b>		0.25	0.13	mg/L		10/24/17 16:50	10/10/17 17:30	5
<b>Chromium</b>	<b>0.0013</b>	<b>J</b>	0.0025	0.0011	mg/L		10/24/17 16:50	10/10/17 17:30	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/24/17 16:50	10/10/17 17:30	5
Lead	<0.00035		0.0013	0.00035	mg/L		10/24/17 16:50	10/10/17 17:30	5
Lithium	<0.0032	<b>^</b>	0.0050	0.0032	mg/L		10/24/17 16:50	10/10/17 17:30	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/24/17 16:50	10/10/17 17:30	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/24/17 16:50	10/10/17 17:30	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/24/17 16:50	10/10/17 17:30	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		10/10/17 12:44	10/11/17 13:29	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>410</b>		5.0	3.4	mg/L			10/09/17 10:38	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## 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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.

## 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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWA-3**

**Date Collected: 10/03/17 14:40**

**Date Received: 10/05/17 09:01**

**Lab Sample ID: 400-144243-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	371786	10/13/17 12:29	JAW	TAL PEN
Total/NA	Analysis	300.0		5	371846	10/14/17 05:59	TAJ	TAL PEN
Total Recoverable	Analysis	6020		5	371403	10/10/17 17:30	DRE	TAL PEN
Total Recoverable	Prep	3005A			371122	10/24/17 16:50	DN1	TAL PEN
Total/NA	Prep	7470A			371303	10/10/17 12:44	JAP	TAL PEN
Total/NA	Analysis	7470A		1	371483	10/11/17 13:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	371088	10/09/17 10:38	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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## HPLC/IC

### Analysis Batch: 371786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total/NA	Water	300.0	
MB 400-371786/30	Method Blank	Total/NA	Water	300.0	
LCS 400-371786/31	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-371786/32	Lab Control Sample Dup	Total/NA	Water	300.0	
400-144243-1 MS	GWA-3	Total/NA	Water	300.0	
400-144243-1 MSD	GWA-3	Total/NA	Water	300.0	

### Analysis Batch: 371846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total/NA	Water	300.0	

## Metals

### Prep Batch: 371122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total Recoverable	Water	3005A	
MB 400-371122/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371122/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144292-G-13-B MS ^5	Matrix Spike	Dissolved	Water	3005A	
400-144292-G-13-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Prep Batch: 371303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total/NA	Water	7470A	
MB 400-371303/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-371303/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-144297-D-2-B MS	Matrix Spike	Total/NA	Water	7470A	
400-144297-E-2-G MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 371403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total Recoverable	Water	6020	371122
MB 400-371122/1-A ^5	Method Blank	Total Recoverable	Water	6020	371122
LCS 400-371122/2-A	Lab Control Sample	Total Recoverable	Water	6020	371122
400-144292-G-13-B MS ^5	Matrix Spike	Dissolved	Water	6020	371122
400-144292-G-13-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	6020	371122

### Analysis Batch: 371483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total/NA	Water	7470A	371303
MB 400-371303/14-A	Method Blank	Total/NA	Water	7470A	371303
LCS 400-371303/15-A	Lab Control Sample	Total/NA	Water	7470A	371303
400-144297-D-2-B MS	Matrix Spike	Total/NA	Water	7470A	371303
400-144297-E-2-G MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	371303

## General Chemistry

### Analysis Batch: 371088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144243-1	GWA-3	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## General Chemistry (Continued)

### Analysis Batch: 371088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-371088/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371088/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-A-4 DU	Duplicate	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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-371786/30**  
**Matrix: Water**  
**Analysis Batch: 371786**

**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			10/13/17 10:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/13/17 10:35	1
Sulfate	<0.70		1.0	0.70	mg/L			10/13/17 10:35	1

**Lab Sample ID: LCS 400-371786/31**  
**Matrix: Water**  
**Analysis Batch: 371786**

**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	9.81		mg/L		98	90 - 110
Fluoride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

**Lab Sample ID: LCSD 400-371786/32**  
**Matrix: Water**  
**Analysis Batch: 371786**

**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	0	15
Fluoride	10.0	10.0		mg/L		100	90 - 110	2	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	1	15

**Lab Sample ID: 400-144243-1 MS**  
**Matrix: Water**  
**Analysis Batch: 371786**

**Client Sample ID: GWA-3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.5		10.0	19.0		mg/L		95	80 - 120
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120
Sulfate	150	E	10.0	157	E 4	mg/L		119	80 - 120

**Lab Sample ID: 400-144243-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 371786**

**Client Sample ID: GWA-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	9.5		10.0	19.0		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120	0	20
Sulfate	150	E	10.0	157	E 4	mg/L		121	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-371122/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371122**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		10/09/17 10:47	10/10/17 15:23	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		10/09/17 10:47	10/10/17 15:23	5

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 400-371122/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371122**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00049		0.0025	0.00049	mg/L		10/09/17 10:47	10/10/17 15:23	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		10/09/17 10:47	10/10/17 15:23	5
Boron	<0.021		0.050	0.021	mg/L		10/09/17 10:47	10/10/17 15:23	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		10/09/17 10:47	10/10/17 15:23	5
Calcium	<0.13		0.25	0.13	mg/L		10/09/17 10:47	10/10/17 15:23	5
Chromium	<0.0011		0.0025	0.0011	mg/L		10/09/17 10:47	10/10/17 15:23	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		10/09/17 10:47	10/10/17 15:23	5
Lead	0.00424		0.0013	0.00035	mg/L		10/09/17 10:47	10/10/17 15:23	5
Lithium	<0.0032	^	0.0050	0.0032	mg/L		10/09/17 10:47	10/10/17 15:23	5
Molybdenum	<0.00085		0.015	0.00085	mg/L		10/09/17 10:47	10/10/17 15:23	5
Selenium	<0.00024		0.0013	0.00024	mg/L		10/09/17 10:47	10/10/17 15:23	5
Thallium	<0.000085		0.00050	0.000085	mg/L		10/09/17 10:47	10/10/17 15:23	5

**Lab Sample ID: LCS 400-371122/2-A**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 371122**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0513		mg/L		103	80 - 120
Arsenic	0.0500	0.0522		mg/L		104	80 - 120
Barium	0.0500	0.0534		mg/L		107	80 - 120
Beryllium	0.0500	0.0529		mg/L		106	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120
Chromium	0.0500	0.0554		mg/L		111	80 - 120
Cobalt	0.0500	0.0527		mg/L		105	80 - 120
Lead	0.0500	0.0502		mg/L		100	80 - 120
Lithium	0.0500	0.0526		mg/L		105	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Selenium	0.0500	0.0509		mg/L		102	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

**Lab Sample ID: 400-144292-G-13-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 371122**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0010		0.0500	0.0531		mg/L		106	75 - 125
Arsenic	0.021		0.0500	0.0736		mg/L		105	75 - 125
Barium	1.1		0.0500	1.17	4	mg/L		148	75 - 125
Beryllium	<0.00034		0.0500	0.0515		mg/L		103	75 - 125
Boron	0.26		0.100	0.371		mg/L		112	75 - 125
Cadmium	<0.00034		0.0500	0.0500		mg/L		100	75 - 125
Calcium	170	E	5.00	173	E 4	mg/L		89	75 - 125
Chromium	<0.0011		0.0500	0.0522		mg/L		104	75 - 125
Cobalt	0.0010	J	0.0500	0.0510		mg/L		100	75 - 125
Lead	0.028	B F1	0.0500	0.0501	F1	mg/L		44	75 - 125
Lithium	0.024	^ F1	0.0500	0.0971	F1 ^	mg/L		146	75 - 125

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 400-144292-G-13-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 371122**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.019		0.100	0.125		mg/L		105	75 - 125
Selenium	<0.00024		0.0500	0.0512		mg/L		102	75 - 125
Thallium	<0.000085		0.0100	0.00983		mg/L		98	75 - 125

**Lab Sample ID: 400-144292-G-13-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 371403**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 371122**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.0010		0.0500	0.0522		mg/L		104	75 - 125	2	20
Arsenic	0.021		0.0500	0.0753		mg/L		109	75 - 125	2	20
Barium	1.1		0.0500	1.19	4	mg/L		196	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0533		mg/L		107	75 - 125	4	20
Boron	0.26		0.100	0.381		mg/L		122	75 - 125	3	20
Cadmium	<0.00034		0.0500	0.0512		mg/L		102	75 - 125	3	20
Calcium	170	E	5.00	176	E 4	mg/L		139	75 - 125	1	20
Chromium	<0.0011		0.0500	0.0534		mg/L		107	75 - 125	2	20
Cobalt	0.0010	J	0.0500	0.0515		mg/L		101	75 - 125	1	20
Lead	0.028	B F1	0.0500	0.0522	F1	mg/L		48	75 - 125	4	20
Lithium	0.024	^ F1	0.0500	0.0997	F1 ^	mg/L		151	75 - 125	3	20
Molybdenum	0.019		0.100	0.128		mg/L		109	75 - 125	3	20
Selenium	<0.00024		0.0500	0.0518		mg/L		104	75 - 125	1	20
Thallium	<0.000085		0.0100	0.00999		mg/L		100	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 400-371303/14-A**  
**Matrix: Water**  
**Analysis Batch: 371483**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 371303**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/10/17 12:27	10/11/17 12:26	1

**Lab Sample ID: LCS 400-371303/15-A**  
**Matrix: Water**  
**Analysis Batch: 371483**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 371303**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000985		mg/L		98	80 - 120

**Lab Sample ID: 400-144297-D-2-B MS**  
**Matrix: Water**  
**Analysis Batch: 371483**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 371303**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000070	F1	0.00201	0.00169		mg/L		84	80 - 120

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-144243-3  
 SDG: Plant Wansley Gypsum LF Cells

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 400-144297-E-2-G MSD**  
**Matrix: Water**  
**Analysis Batch: 371483**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 371303**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000070	F1	0.00201	0.00160	F1	mg/L		79	80 - 120	6	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-371088/1**  
**Matrix: Water**  
**Analysis Batch: 371088**

**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			10/09/17 10:38	1

**Lab Sample ID: LCS 400-371088/2**  
**Matrix: Water**  
**Analysis Batch: 371088**

**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	294		mg/L		100	78 - 122

**Lab Sample ID: 400-144243-A-4 DU**  
**Matrix: Water**  
**Analysis Batch: 371088**

**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

681-Atlanta

**Client Information**  
 Southern Company  
 Address: PO BOX 2641 GSC8  
 City: Birmingham  
 State, Zip: AL, 35291  
 Phone: SCS10347656  
 Email: JAbraham@southernco.com  
 Project Name: CCR - Plant Wansley  
 Site: Georgia

**Sampler:** Whitmire, Cheyenne R  
**Lab Pk#:** Whitmire, Cheyenne R  
**E-Mail:** cheyenne.whitmire@testamericainc.com

**Carrier Tracking No(s):** 400-68215-27703.7  
**Page:** 7 of 10  
**Job #:** 1081

**Due Date Requested:**  
**TAT Requested (days):**

**PO #:** SCS10347656  
**WG #:**  
**Project #:** 40007709  
**SSOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Swab, On-site, etc.)	Analysis Requested		Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Total Number of Containers	
GWA-3	10.3.17	1440 G	Water	Water	X	2	
			Water	Water			
			Water	Water			
			Water	Water			
			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:

**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  
 Z - other (specify)

**Special Instructions/Note:**

**Analysis Requested:**  
 TDS M 2500 C.F.S. 130  
 METALS PACT 27 APP III + V  
 2500 C.F.S. 130  
 500 - Boron Calcium  
 2500 C.F.S. 130  
 400-144243 COC

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Deliverable Requested:**  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Empty Kit Relinquished by:** \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_

**Date:** 10.4.17 1200  
 10/4/17 1600

**Company:** ERM  
 Company: ERM  
 Company: ERM

**Received by:** \_\_\_\_\_  
**Received by:** \_\_\_\_\_  
**Received by:** \_\_\_\_\_

**Date/Time:** 10/4/17 1200  
 10-5-17 0901

**Company:** ERM  
 Company: ERM  
 Company: ERM

**Custody Seal No.:**  Yes  No  Δ

**Cooking Temperature(s) °C and Other Remarks:** \_\_\_\_\_



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-144243-3

SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 144243**

**List Number: 1**

**Creator: Edwards, Robin S**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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, 0.0°C IR-7; 0.0°C, 3.0°C, 1.5°C, 0.0°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?	False	
There are no discrepancies between the containers received and the COC.	False	COC lists Ba(rium), but should be B(oron).
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 Wansley

TestAmerica Job ID: 400-144243-3  
SDG: Plant Wansley Gypsum LF Cells

## 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	10-31-17
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: 400-146736-1

TestAmerica SDG: Plant Wansley Gypsum LF Cells

Client Project/Site: CCR - Plant Wansley

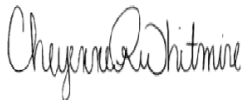
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

12/14/2017 3:03:44 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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 Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

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**Job ID: 400-146736-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

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**Job Narrative  
400-146736-1**

**HPLC/IC**

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWC-14-20171201-01 (400-146736-2) and DUP-1-20171201-01 (400-146736-7). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 378315 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

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# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## Client Sample ID: GWC-9-20171201-01

## Lab Sample ID: 400-146736-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.10		0.050	0.021	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-14-20171201-01

## Lab Sample ID: 400-146736-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	150		5.0	4.5	mg/L	5		300.0	Total/NA
Boron	1.2		0.050	0.021	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWC-20-20171201-01

## Lab Sample ID: 400-146736-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-21-20171201-01

## Lab Sample ID: 400-146736-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-32-20171201-01

## Lab Sample ID: 400-146736-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.4		0.20	0.082	mg/L	1		300.0	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33-20171130-01

## Lab Sample ID: 400-146736-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.8		0.20	0.082	mg/L	1		300.0	Total/NA

## Client Sample ID: DUP-1-20171201-01

## Lab Sample ID: 400-146736-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	150		5.0	4.5	mg/L	5		300.0	Total/NA
Boron	1.2		0.050	0.021	mg/L	5		6020	Total Recoverable

## Client Sample ID: DUP-2-20171201-01

## Lab Sample ID: 400-146736-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.5		0.20	0.082	mg/L	1		300.0	Total/NA
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FERB-1-20171201-01

## Lab Sample ID: 400-146736-9

No Detections.

## Client Sample ID: FB-1-20171201-01

## Lab Sample ID: 400-146736-10

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	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 Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-146736-1	GWC-9-20171201-01	Water	12/01/17 10:46	12/02/17 08:52
400-146736-2	GWC-14-20171201-01	Water	12/01/17 12:34	12/02/17 08:52
400-146736-3	GWC-20-20171201-01	Water	12/01/17 12:35	12/02/17 08:52
400-146736-4	GWC-21-20171201-01	Water	12/01/17 11:10	12/02/17 08:52
400-146736-5	GWC-32-20171201-01	Water	12/01/17 09:25	12/02/17 08:52
400-146736-6	GWC-33-20171130-01	Water	11/30/17 17:20	12/02/17 08:52
400-146736-7	DUP-1-20171201-01	Water	12/01/17 00:00	12/02/17 08:52
400-146736-8	DUP-2-20171201-01	Water	12/01/17 00:00	12/02/17 08:52
400-146736-9	FERB-1-20171201-01	Water	12/01/17 13:45	12/02/17 08:52
400-146736-10	FB-1-20171201-01	Water	12/01/17 13:35	12/02/17 08:52

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# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-9-20171201-01**

**Lab Sample ID: 400-146736-1**

Date Collected: 12/01/17 10:46

Matrix: Water

Date Received: 12/02/17 08:52

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.10		0.050	0.021	mg/L		12/04/17 11:59	12/05/17 14:10	5

**Client Sample ID: GWC-14-20171201-01**

**Lab Sample ID: 400-146736-2**

Date Collected: 12/01/17 12:34

Matrix: Water

Date Received: 12/02/17 08:52

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		5.0	4.5	mg/L			12/05/17 14:30	5

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.2		0.050	0.021	mg/L		12/04/17 11:59	12/05/17 14:14	5

**Client Sample ID: GWC-20-20171201-01**

**Lab Sample ID: 400-146736-3**

Date Collected: 12/01/17 12:35

Matrix: Water

Date Received: 12/02/17 08:52

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			12/05/17 12:42	1

**Client Sample ID: GWC-21-20171201-01**

**Lab Sample ID: 400-146736-4**

Date Collected: 12/01/17 11:10

Matrix: Water

Date Received: 12/02/17 08:52

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			12/05/17 12:42	1

**Client Sample ID: GWC-32-20171201-01**

**Lab Sample ID: 400-146736-5**

Date Collected: 12/01/17 09:25

Matrix: Water

Date Received: 12/02/17 08:52

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	3.4		0.20	0.082	mg/L			12/04/17 15:32	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			12/05/17 12:42	1

**Client Sample ID: GWC-33-20171130-01**

**Lab Sample ID: 400-146736-6**

Date Collected: 11/30/17 17:20

Matrix: Water

Date Received: 12/02/17 08:52

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	2.8		0.20	0.082	mg/L			12/04/17 15:55	1

TestAmerica Pensacola

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: DUP-1-20171201-01**

**Lab Sample ID: 400-146736-7**

Date Collected: 12/01/17 00:00

Matrix: Water

Date Received: 12/02/17 08:52

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		5.0	4.5	mg/L	-		12/05/17 15:39	5

**Method: 6020 - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.2		0.050	0.021	mg/L	-	12/04/17 11:59	12/05/17 14:19	5

**Client Sample ID: DUP-2-20171201-01**

**Lab Sample ID: 400-146736-8**

Date Collected: 12/01/17 00:00

Matrix: Water

Date Received: 12/02/17 08:52

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	3.5		0.20	0.082	mg/L	-		12/04/17 16:40	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L	-		12/05/17 12:42	1

**Client Sample ID: FERB-1-20171201-01**

**Lab Sample ID: 400-146736-9**

Date Collected: 12/01/17 13:45

Matrix: Water

Date Received: 12/02/17 08:52

**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	-		12/04/17 17:49	1
Fluoride	<0.082		0.20	0.082	mg/L	-		12/04/17 17:49	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	-	12/04/17 11:59	12/05/17 14:23	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L	-		12/07/17 16:23	1

**Client Sample ID: FB-1-20171201-01**

**Lab Sample ID: 400-146736-10**

Date Collected: 12/01/17 13:35

Matrix: Water

Date Received: 12/02/17 08:52

**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	-		12/04/17 18:11	1
Fluoride	<0.082		0.20	0.082	mg/L	-		12/04/17 18:11	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	-	12/04/17 11:59	12/05/17 14:28	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L	-		12/07/17 16:23	1

TestAmerica Pensacola

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## 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.

## 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 Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: GWC-9-20171201-01**

**Lab Sample ID: 400-146736-1**

Date Collected: 12/01/17 10:46

Matrix: Water

Date Received: 12/02/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			378279	12/04/17 11:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	378590	12/05/17 14:10	DRE	TAL PEN

**Client Sample ID: GWC-14-20171201-01**

**Lab Sample ID: 400-146736-2**

Date Collected: 12/01/17 12:34

Matrix: Water

Date Received: 12/02/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	5	378491	12/05/17 14:30	JAW	TAL PEN
Total Recoverable	Prep	3005A			378279	12/04/17 11:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	378590	12/05/17 14:14	DRE	TAL PEN

**Client Sample ID: GWC-20-20171201-01**

**Lab Sample ID: 400-146736-3**

Date Collected: 12/01/17 12:35

Matrix: Water

Date Received: 12/02/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	378433	12/05/17 12:42	TET	TAL PEN

**Client Sample ID: GWC-21-20171201-01**

**Lab Sample ID: 400-146736-4**

Date Collected: 12/01/17 11:10

Matrix: Water

Date Received: 12/02/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	378433	12/05/17 12:42	TET	TAL PEN

**Client Sample ID: GWC-32-20171201-01**

**Lab Sample ID: 400-146736-5**

Date Collected: 12/01/17 09:25

Matrix: Water

Date Received: 12/02/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	378315	12/04/17 15:32	JAW	TAL PEN
Total/NA	Analysis	SM 2540C		1	378433	12/05/17 12:42	TET	TAL PEN

**Client Sample ID: GWC-33-20171130-01**

**Lab Sample ID: 400-146736-6**

Date Collected: 11/30/17 17:20

Matrix: Water

Date Received: 12/02/17 08:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	378315	12/04/17 15:55	JAW	TAL PEN



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

**Client Sample ID: DUP-1-20171201-01**

**Lab Sample ID: 400-146736-7**

**Date Collected: 12/01/17 00:00**

**Matrix: Water**

**Date Received: 12/02/17 08:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	5	378491	12/05/17 15:39	JAW	TAL PEN
Total Recoverable	Prep	3005A			378279	12/04/17 11:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	378590	12/05/17 14:19	DRE	TAL PEN

**Client Sample ID: DUP-2-20171201-01**

**Lab Sample ID: 400-146736-8**

**Date Collected: 12/01/17 00:00**

**Matrix: Water**

**Date Received: 12/02/17 08:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	378315	12/04/17 16:40	JAW	TAL PEN
Total/NA	Analysis	SM 2540C		1	378433	12/05/17 12:42	TET	TAL PEN

**Client Sample ID: FERB-1-20171201-01**

**Lab Sample ID: 400-146736-9**

**Date Collected: 12/01/17 13:45**

**Matrix: Water**

**Date Received: 12/02/17 08:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	378315	12/04/17 17:49	JAW	TAL PEN
Total Recoverable	Prep	3005A			378279	12/04/17 11:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	378590	12/05/17 14:23	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	378841	12/07/17 16:23	TET	TAL PEN

**Client Sample ID: FB-1-20171201-01**

**Lab Sample ID: 400-146736-10**

**Date Collected: 12/01/17 13:35**

**Matrix: Water**

**Date Received: 12/02/17 08:52**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	378315	12/04/17 18:11	JAW	TAL PEN
Total Recoverable	Prep	3005A			378279	12/04/17 11:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	378590	12/05/17 14:28	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	378841	12/07/17 16:23	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 Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## HPLC/IC

### Analysis Batch: 378315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-146736-5	GWC-32-20171201-01	Total/NA	Water	300.0	
400-146736-6	GWC-33-20171130-01	Total/NA	Water	300.0	
400-146736-8	DUP-2-20171201-01	Total/NA	Water	300.0	
400-146736-9	FERB-1-20171201-01	Total/NA	Water	300.0	
400-146736-10	FB-1-20171201-01	Total/NA	Water	300.0	
MB 400-378315/4	Method Blank	Total/NA	Water	300.0	
LCS 400-378315/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-378315/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-146736-2 MS	GWC-14-20171201-01	Total/NA	Water	300.0	
400-146736-2 MSD	GWC-14-20171201-01	Total/NA	Water	300.0	

### Analysis Batch: 378491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-146736-2 - DL	GWC-14-20171201-01	Total/NA	Water	300.0	
400-146736-7 - DL	DUP-1-20171201-01	Total/NA	Water	300.0	
MB 400-378491/4	Method Blank	Total/NA	Water	300.0	
LCS 400-378491/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-378491/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-146736-2 MS	GWC-14-20171201-01	Total/NA	Water	300.0	
400-146736-2 MSD	GWC-14-20171201-01	Total/NA	Water	300.0	

## Metals

### Prep Batch: 378279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-146736-1	GWC-9-20171201-01	Total Recoverable	Water	3005A	
400-146736-2	GWC-14-20171201-01	Total Recoverable	Water	3005A	
400-146736-7	DUP-1-20171201-01	Total Recoverable	Water	3005A	
400-146736-9	FERB-1-20171201-01	Total Recoverable	Water	3005A	
400-146736-10	FB-1-20171201-01	Total Recoverable	Water	3005A	
MB 400-378279/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-378279/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-146669-F-2-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-146669-F-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 378590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-146736-1	GWC-9-20171201-01	Total Recoverable	Water	6020	378279
400-146736-2	GWC-14-20171201-01	Total Recoverable	Water	6020	378279
400-146736-7	DUP-1-20171201-01	Total Recoverable	Water	6020	378279
400-146736-9	FERB-1-20171201-01	Total Recoverable	Water	6020	378279
400-146736-10	FB-1-20171201-01	Total Recoverable	Water	6020	378279
MB 400-378279/1-A ^5	Method Blank	Total Recoverable	Water	6020	378279
LCS 400-378279/2-A	Lab Control Sample	Total Recoverable	Water	6020	378279
400-146669-F-2-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	378279
400-146669-F-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	378279

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## General Chemistry

### Analysis Batch: 378433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-146736-3	GWC-20-20171201-01	Total/NA	Water	SM 2540C	
400-146736-4	GWC-21-20171201-01	Total/NA	Water	SM 2540C	
400-146736-5	GWC-32-20171201-01	Total/NA	Water	SM 2540C	
400-146736-8	DUP-2-20171201-01	Total/NA	Water	SM 2540C	
MB 400-378433/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-378433/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-146491-B-15 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 378841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-146736-9	FERB-1-20171201-01	Total/NA	Water	SM 2540C	
400-146736-10	FB-1-20171201-01	Total/NA	Water	SM 2540C	
MB 400-378841/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-378841/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-146738-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-378315/4**  
**Matrix: Water**  
**Analysis Batch: 378315**

**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			12/04/17 13:15	1
Fluoride	<0.082		0.20	0.082	mg/L			12/04/17 13:15	1

**Lab Sample ID: LCS 400-378315/5**  
**Matrix: Water**  
**Analysis Batch: 378315**

**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	9.70		mg/L		97	90 - 110
Fluoride	10.0	9.62		mg/L		96	90 - 110

**Lab Sample ID: LCSD 400-378315/6**  
**Matrix: Water**  
**Analysis Batch: 378315**

**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	9.51		mg/L		95	90 - 110	2	15
Fluoride	10.0	9.96		mg/L		100	90 - 110	3	15

**Lab Sample ID: 400-146736-2 MS**  
**Matrix: Water**  
**Analysis Batch: 378315**

**Client Sample ID: GWC-14-20171201-01**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	140	E	10.0	151	E 4	mg/L		74	80 - 120
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120

**Lab Sample ID: 400-146736-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 378315**

**Client Sample ID: GWC-14-20171201-01**  
**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	E	10.0	151	E 4	mg/L		74	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	3	20

**Lab Sample ID: MB 400-378491/4**  
**Matrix: Water**  
**Analysis Batch: 378491**

**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			12/05/17 13:22	1

**Lab Sample ID: LCS 400-378491/5**  
**Matrix: Water**  
**Analysis Batch: 378491**

**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	9.50		mg/L		95	90 - 110

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-378491/6**  
**Matrix: Water**  
**Analysis Batch: 378491**

**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	3	15

**Lab Sample ID: 400-146736-2 MS**  
**Matrix: Water**  
**Analysis Batch: 378491**

**Client Sample ID: GWC-14-20171201-01**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	150		50.0	195		mg/L		91	80 - 120

**Lab Sample ID: 400-146736-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 378491**

**Client Sample ID: GWC-14-20171201-01**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	150		50.0	196		mg/L		92	80 - 120	0	20

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 400-378279/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 378590**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 378279**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		12/04/17 11:59	12/05/17 11:59	5

**Lab Sample ID: LCS 400-378279/2-A**  
**Matrix: Water**  
**Analysis Batch: 378590**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 378279**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.108		mg/L		108	80 - 120

**Lab Sample ID: 400-146669-F-2-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 378590**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 378279**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.12		0.100	0.237		mg/L		117	75 - 125

**Lab Sample ID: 400-146669-F-2-C MSD ^5**  
**Matrix: Water**  
**Analysis Batch: 378590**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 378279**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.12		0.100	0.229		mg/L		109	75 - 125	3	20

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley

TestAmerica Job ID: 400-146736-1  
SDG: Plant Wansley Gypsum LF Cells

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 400-378433/1**  
**Matrix: Water**  
**Analysis Batch: 378433**

**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			12/05/17 12:42	1

**Lab Sample ID: LCS 400-378433/2**  
**Matrix: Water**  
**Analysis Batch: 378433**

**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: 400-146491-B-15 DU**  
**Matrix: Water**  
**Analysis Batch: 378433**

**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	18		18.0		mg/L		0	5

**Lab Sample ID: MB 400-378841/1**  
**Matrix: Water**  
**Analysis Batch: 378841**

**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			12/07/17 16:23	1

**Lab Sample ID: LCS 400-378841/2**  
**Matrix: Water**  
**Analysis Batch: 378841**

**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	268		mg/L		91	78 - 122

**Lab Sample ID: 400-146738-B-2 DU**  
**Matrix: Water**  
**Analysis Batch: 378841**

**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	40		40.0		mg/L		0	5

**TestAmerica Pensacola**  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2671

### Chain of Custody Record

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

Sampler: M. Thomas, H. Beaugh  
 Lab P#1: Whitmire, Chyenne R  
 Client Contact: Joju Abraham  
 E-Mail: cheyenne.whitmire@testamericainc.com  
 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: Plant Wansley - Gypsum Landfill  
 Site: CCR D01-R1

Carrier Tracking No(s):  
 Page: 1 of 1  
 Job #:  
 COC No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=volatile, BT=Total, A=Al)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested						Total Number of Containers	Special Instructions/Note:	
							EPA 6020: Boron	EPA 6020: Calcium	Fluoride - EPA 300	Sulfate - EPA 300	TDS - SM 2540C				
GWC-9-20171201-01	12/1/17	1046	G	W	N	N	X								
GWC-14-20171201-01	12/1/17	1234	G	W	N	N	X								
GWC-20-20171201-01	12/1/17	1235	G	W	N	N			X						
GWC-21-20171201-01	12/1/17	1110	G	W	N	N			X						
GWC-32-20171201-01	12/1/17	0925	G	W	N	N		X							
GWC-33-20171130-01	11/30/17	1720	G	W	N	N		X							
DUP-1-20171201-01	12/1/17	-	G	W	N	N	X								
DUP-2-20171201-01	12/1/17	-	G	W	N	N		X							
FERB-1-20171201-01	12/1/17	1345	G	W	N	N	X	X	X	X	X				
FB-1-20171201-01	12/1/17	1335	G	W	N	N	X	X	X	X	X				

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**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: \_\_\_\_\_ Time: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: *Hand Beyers* Date/Time: 12/1/17 1630 Company: ERH  
 Relinquished by: *Joju Abraham* Date/Time: 12/1/17 1630 Company: TA  
 Relinquished by: *Joju Abraham* Date/Time: 12-2-17 8:52 Company: TA  
 Custody Seals Intact:  Yes  No  No  No  No  
 Cooler Temperature(s) °C and Other Remarks: 2.9°e 128



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-146736-1  
SDG Number: Plant Wansley Gypsum LF Cells

**Login Number: 146736**

**List Number: 1**

**Creator: Perez, Trina M**

**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	2.9°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 Wansley

TestAmerica Job ID: 400-146736-1  
 SDG: Plant Wansley Gypsum LF Cells

## 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

Product Name: Low-Flow System

Date: 2016-03-23 10:54:59

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 44 ft

Pump placement from TOC 44 ft

**Well Information:**

Well ID gwa1  
Well diameter 2 in  
Well Total Depth 49.08 ft  
Screen Length 10 ft  
Depth to Water 16.21 ft

**Pumping Information:**

Final Pumping Rate 60 mL/min  
Total System Volume 0.1961801 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 24.6 in  
Total Volume Pumped 3.12 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:23:21	300.04	15.77	5.51	22.23	2.77	17.95	7.17	197.13
Last 5	10:28:21	600.03	16.21	5.51	21.39	3.24	18.01	7.08	196.12
Last 5	10:33:21	900.03	16.30	5.53	21.61	2.83	18.06	7.01	194.19
Last 5	10:38:21	1200.35	16.28	5.54	21.03	1.88	18.19	7.00	193.40
Last 5	10:43:21	1500.35	16.46	5.56	21.65	2.91	18.21	7.07	192.18
Variance 0			0.09	0.03	0.23			-0.07	-1.92
Variance 1			-0.01	0.01	-0.58			-0.02	-0.79
Variance 2			0.18	0.02	0.62			0.07	-1.22

**Notes**

Sampled at 1045 on 3/23/16 by Kj. Switched sc to us/cm. saved as part 1. Purged 52 min total

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-23 09:52:31

Project Information:

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 354698  
Turbidity Make/Model

Pump Information:

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 53.42 ft

Pump placement from TOC 53.42 ft

Well Information:

Well ID gwa2  
Well diameter 2 in  
Well Total Depth 58.42 ft  
Screen Length 10 ft  
Depth to Water 40.53 ft

Pumping Information:

Final Pumping Rate 80 mL/min  
Total System Volume 0.3439122 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:27:15	1500.03	13.84	6.03	0.05	5.20	40.53	8.12	143.18
Last 5	09:32:15	1800.03	13.98	5.95	0.05	3.77	40.53	8.08	140.81
Last 5	09:37:15	2100.03	14.07	5.91	0.05	3.54	40.53	8.04	138.39
Last 5	09:42:16	2401.03	14.08	5.87	0.05	2.78	40.53	8.01	137.20
Last 5	09:47:16	2701.03	14.20	5.85	0.05	2.44	40.53	7.96	137.33
Variance 0			0.10	-0.04	-0.00			-0.03	-2.41
Variance 1			0.01	-0.04	0.00			-0.04	-1.19
Variance 2			0.12	-0.02	-0.00			-0.04	0.13

Notes

2701 80ml/min gwa2 cg

Grab Samples



Product Name: Low-Flow System

Date: 2016-03-23 09:45:15

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 32 ft

Pump placement from TOC 32 ft

**Well Information:**

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 37.69 ft  
Screen Length 10 ft  
Depth to Water 21.89 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1672219 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.56 in  
Total Volume Pumped 3.5 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/ +/- 5%	Turb NTU +/- 10	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 0
Stabilization			+/- 0	+/- 0.2					
Last 5	09:23:20	900.03	13.17	7.70	0.31	3.41	22.02	0.19	-39.33
Last 5	09:28:20	1200.03	13.31	7.53	0.30	3.29	22.02	0.17	-44.45
Last 5	09:33:20	1500.03	13.67	7.41	0.29	2.20	22.02	0.16	-43.85
Last 5	09:38:20	1800.03	13.80	7.31	0.28	2.06	22.02	0.16	-41.57
Last 5	09:43:20	2100.03	13.77	7.25	0.27	2.02	22.02	0.16	-40.02
Variance 0			0.36	-0.13	-0.01			-0.01	0.60
Variance 1			0.12	-0.09	-0.01			-0.01	2.29
Variance 2			-0.03	-0.06	-0.01			-0.00	1.54

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-22 12:27:40

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 40 ft

Pump placement from TOC 40 ft

**Well Information:**

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.69 ft  
Screen Length 10 ft  
Depth to Water 24.67 ft

**Pumping Information:**

Final Pumping Rate 75 mL/min  
Total System Volume 0.1865273 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5.47 in  
Total Volume Pumped 8 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	12:05:32	4199.89	16.69	6.75	0.07	0.21	29.44	5.41	213.48
Last 5	12:10:32	4499.90	16.65	6.75	0.07	0.32	29.62	5.43	213.14
Last 5	12:15:32	4799.90	16.87	6.73	0.07	0.18	29.81	5.45	213.41
Last 5	12:20:32	5099.90	16.95	6.71	0.06	0.35	29.99	5.42	213.69
Last 5	12:25:32	5399.90	17.09	6.72	0.07	0.28	30.14	5.36	211.92
Variance 0			0.22	-0.02	-0.00			0.02	0.27
Variance 1			0.08	-0.02	-0.00			-0.04	0.28
Variance 2			0.14	0.02	0.00			-0.06	-1.77

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-22 12:56:29

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 354698  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 52 ft

Pump placement from TOC 52 ft

**Well Information:**

Well ID gwa29  
Well diameter 2 in  
Well Total Depth 57.11 ft  
Screen Length 10 ft  
Depth to Water 42.19 ft

**Pumping Information:**

Final Pumping Rate 70 mL/min  
Total System Volume 0.3404855 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.24 in  
Total Volume Pumped 5.25 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	12:24:50	3300.93	17.71	5.94	0.09	5.54	42.19	6.22	173.57
Last 5	12:29:50	3600.93	17.94	5.93	0.09	5.25	42.19	6.22	171.37
Last 5	12:34:50	3900.93	18.11	5.93	0.09	5.17	42.19	6.21	171.35
Last 5	12:39:50	4200.94	18.20	5.93	0.09	5.03	42.19	6.20	170.97
Last 5	12:44:50	4500.93	18.15	5.92	0.09	4.89	42.19	6.21	171.37
Variance 0			0.17	-0.00	0.00			-0.01	-0.02
Variance 1			0.09	0.00	-0.00			-0.01	-0.38
Variance 2			-0.05	-0.01	0.00			0.01	0.40

**Notes**

Sampled at 1250 on 3/22 CG

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-28 12:58:10

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 31 ft

Pump placement from TOC 31 ft

**Well Information:**

Well ID gwc5  
Well diameter 2 in  
Well Total Depth 36.76 ft  
Screen Length 10 ft  
Depth to Water 15.95 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.1648087 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17.76 in  
Total Volume Pumped 3.2 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:17:48	1201.04	21.23	7.29	263.26	0.94	17.12	1.95	180.69
Last 5	12:22:48	1501.03	20.75	7.19	258.48	1.00	17.21	2.10	167.36
Last 5	12:27:49	1802.03	21.24	7.08	265.69	0.85	17.29	1.97	147.32
Last 5	12:32:49	2102.03	21.14	7.05	260.84	1.08	17.35	1.83	131.22
Last 5	12:37:49	2402.03	21.16	7.05	257.90	0.53	17.43	1.87	118.91
Variance 0			0.49	-0.11	7.21			-0.13	-20.04
Variance 1			-0.10	-0.03	-4.85			-0.14	-16.10
Variance 2			0.03	-0.00	-2.94			0.04	-12.31

**Notes**

Sampled at 1245 on 3/28/16 by KNJ

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-03-28 14:38:06

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 25 ft

Pump placement from TOC 25 ft

**Well Information:**

Well ID gwc6  
Well diameter 2 in  
Well Total Depth 30.60 ft  
Screen Length 10 ft  
Depth to Water 17.45 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1503296 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 3.01 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:11:22	600.04	20.79	6.70	0.17	0.27	17.52	0.23	78.52
Last 5	14:16:22	900.03	20.44	6.61	0.17	0.29	17.52	0.17	83.29
Last 5	14:21:23	1201.04	20.30	6.56	0.17	0.23	17.52	0.17	84.12
Last 5	14:26:23	1501.04	20.39	6.52	0.17	1.29	17.52	0.15	84.28
Last 5	14:31:25	1803.03	20.23	6.50	0.17	0.17	17.52	0.13	83.67
Variance 0			-0.14	-0.05	0.00			0.01	0.83
Variance 1			0.08	-0.04	0.00			-0.02	0.16
Variance 2			-0.15	-0.02	0.00			-0.02	-0.60

**Notes**

Sampled at 1440 on 3/28/16 by kj

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-29 10:15:25

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 20 ft

Pump placement from TOC 20 ft

**Well Information:**

Well ID gwc7  
Well diameter 2 in  
Well Total Depth 26.19 ft  
Screen Length 10 ft  
Depth to Water 8.20 ft

**Pumping Information:**

Final Pumping Rate 70 mL/min  
Total System Volume 0.1382637 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 32.52 in  
Total Volume Pumped 3.15 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:49:01	1501.03	15.92	6.41	863.99	1.37	10.20	0.28	95.63
Last 5	09:54:01	1801.03	16.01	6.42	863.50	1.45	10.38	0.25	92.15
Last 5	09:59:01	2101.03	16.10	6.42	860.30	1.06	10.57	0.25	90.57
Last 5	10:04:01	2401.03	16.28	6.42	858.17	1.07	10.78	0.24	88.42
Last 5	10:09:01	2701.03	16.34	6.42	856.97	1.94	10.86	0.23	86.56
Variance 0			0.09	-0.00	-3.20			-0.01	-1.58
Variance 1			0.18	0.01	-2.14			-0.00	-2.15
Variance 2			0.06	-0.00	-1.20			-0.01	-1.85

**Notes**

Sampled at 1015 on 3/29/16 by kj

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-29 11:12:59

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 15 ft

Pump placement from TOC 15 ft

**Well Information:**

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20.62 ft  
Screen Length 10 ft  
Depth to Water 9.49 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1261977 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4 in  
Total Volume Pumped 6 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	10:51:27	2400.03	17.09	6.48	0.29	0.89	9.76	0.60	70.41
Last 5	10:56:27	2700.03	17.23	6.46	0.29	0.50	9.78	0.55	70.08
Last 5	11:01:27	3000.03	17.29	6.45	0.28	0.42	9.79	0.54	74.72
Last 5	11:06:27	3300.03	17.54	6.44	0.28	1.01	9.79	0.47	72.81
Last 5	11:11:27	3599.94	17.55	6.45	0.28	0.84	9.79	0.48	73.66
Variance 0			0.07	-0.00	-0.00			-0.01	4.64
Variance 1			0.25	-0.01	-0.00			-0.08	-1.91
Variance 2			0.01	0.01	-0.00			0.01	0.85

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-29 13:32:32

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 14 ft

Pump placement from TOC 14 ft

**Well Information:**

Well ID gwc9  
Well diameter 2 in  
Well Total Depth 19.23 ft  
Screen Length 10 ft  
Depth to Water 7.18 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.1237846 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.16 in  
Total Volume Pumped 7.2 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	13:07:53	4199.89	18.87	5.86	208.57	6.30	7.35	0.16	-13.22
Last 5	13:12:53	4499.89	19.09	5.86	208.01	5.75	7.35	0.16	-13.53
Last 5	13:17:53	4799.89	19.05	5.85	205.40	5.80	7.36	0.15	-14.53
Last 5	13:22:53	5099.89	19.05	5.85	205.16	5.07	7.36	0.15	-13.76
Last 5	13:27:53	5399.89	19.15	5.86	204.81	4.98	7.36	0.15	-13.22
Variance 0			-0.05	-0.00	-2.62			-0.01	-1.00
Variance 1			0.00	-0.00	-0.24			-0.00	0.77
Variance 2			0.10	0.00	-0.35			-0.01	0.54

**Notes**

Sampled at 1330 on 3/29/16 by kj

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-03-29 12:36:38

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 13 ft

Pump placement from TOC 13 ft

**Well Information:**

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.25 ft  
Screen Length 10 ft  
Depth to Water 6.17 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.1213714 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	12:15:54	600.03	18.53	6.67	0.47	0.97	6.25	0.14	-78.64
Last 5	12:20:54	900.03	18.52	6.62	0.47	0.96	6.25	0.09	-81.15
Last 5	12:25:54	1200.03	18.52	6.61	0.47	0.83	6.25	0.07	-83.13
Last 5	12:30:54	1500.04	18.50	6.60	0.48	1.03	6.25	0.06	-84.31
Last 5	12:35:54	1800.03	18.44	6.59	0.48	0.93	6.25	0.06	-84.88
Variance 0			0.00	-0.01	0.00			-0.02	-1.98
Variance 1			-0.02	-0.01	0.00			-0.01	-1.19
Variance 2			-0.06	-0.01	0.00			-0.00	-0.56

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-29 14:08:51

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 35 ft

Pump placement from TOC 35 ft

**Well Information:**

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.72 ft  
Screen Length 10 ft  
Depth to Water 26.44 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.1744614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 28 in  
Total Volume Pumped 2 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	13:46:42	300.03	21.04	7.31	0.26	3.23	27.60	0.71	-53.51
Last 5	13:51:42	600.03	21.28	7.37	0.26	1.04	28.04	0.53	-77.43
Last 5	13:56:42	900.03	20.59	7.45	0.25	0.90	28.42	0.80	-77.62
Last 5	14:01:42	1200.03	20.61	7.49	0.25	1.00	28.62	1.55	-75.34
Last 5	14:06:42	1500.03	20.62	7.53	0.26	1.03	28.78	1.70	-85.77
Variance 0			-0.69	0.07	-0.01			0.28	-0.19
Variance 1			0.02	0.04	0.00			0.75	2.28
Variance 2			0.00	0.04	0.00			0.16	-10.43

**Notes**

Sampled early due to drawdown concerns. Spoke to PR

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-29 16:41:38

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 83 ft

Pump placement from TOC 83 ft

**Well Information:**

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 88.34 ft  
Screen Length 10 ft  
Depth to Water 5.58 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.2902942 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.56 in  
Total Volume Pumped 3.3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/ +/- 5%	Turb NTU +/- 10	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 0
Stabilization			+/- 0	+/- 0.2					
Last 5	16:18:49	600.03	20.92	7.91	0.06	0.80	5.67	3.94	63.42
Last 5	16:23:49	900.03	20.84	7.73	0.06	0.68	5.68	3.97	69.83
Last 5	16:28:49	1200.25	20.49	7.61	0.06	1.06	5.70	4.05	74.26
Last 5	16:33:49	1500.25	20.65	7.55	0.06	1.06	5.71	4.24	76.66
Last 5	16:38:49	1800.25	20.57	7.49	0.06	0.68	5.72	4.35	79.90
Variance 0			-0.34	-0.11	-0.00			0.08	4.43
Variance 1			0.15	-0.06	0.00			0.19	2.41
Variance 2			-0.08	-0.07	-0.00			0.12	3.24

**Notes**

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-03-30 10:21:46

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 18 ft

Pump placement from TOC 18 ft

**Well Information:**

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 23.55 ft  
Screen Length 10 ft  
Depth to Water 9.54 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1334373 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	09:59:34	4499.91	15.44	6.06	0.25	6.62	9.61	0.17	54.26
Last 5	10:04:34	4799.91	15.57	6.05	0.25	5.97	9.61	0.17	55.95
Last 5	10:09:34	5099.91	15.80	6.03	0.25	5.92	9.61	0.16	59.09
Last 5	10:14:34	5399.92	16.02	6.02	0.25	5.48	9.61	0.15	60.16
Last 5	10:19:34	5699.91	16.11	6.01	0.25	4.88	9.61	0.14	62.18
Variance 0			0.23	-0.02	0.00			-0.01	3.14
Variance 1			0.22	-0.01	0.00			-0.00	1.07
Variance 2			0.09	-0.01	-0.00			-0.01	2.02

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 12:05:44

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 45 ft

Pump placement from TOC 45 ft

**Well Information:**

Well ID GWC-15  
Well diameter 2 in  
Well Total Depth 50.46 ft  
Screen Length 10 ft  
Depth to Water 6.52 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1985932 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	11:44:43	600.03	17.41	6.79	0.11	0.38	6.58	2.94	54.88
Last 5	11:49:43	899.90	17.29	6.74	0.13	0.30	6.58	3.04	64.16
Last 5	11:54:43	1199.90	17.45	6.67	0.15	0.14	6.58	3.16	72.82
Last 5	11:59:43	1499.91	17.81	6.68	0.15	0.89	6.58	3.11	77.22
Last 5	12:04:43	1799.91	17.99	6.70	0.15	0.01	6.58	3.12	80.86
Variance 0			0.16	-0.07	0.02			0.12	8.66
Variance 1			0.36	0.01	0.00			-0.05	4.40
Variance 2			0.18	0.02	0.00			0.01	3.63

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 09:50:33

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 22 ft

Pump placement from TOC 22 ft

**Well Information:**

Well ID gwc16  
Well diameter 2 in  
Well Total Depth 27.08 ft  
Screen Length 10 ft  
Depth to Water 10.44 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.14309 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	09:25:30	600.04	16.15	6.18	0.10	0.51	10.53	4.27	136.15
Last 5	09:30:30	900.04	16.31	6.16	0.10	0.39	10.53	4.25	124.34
Last 5	09:35:30	1200.03	16.82	6.16	0.10	0.15	10.53	4.19	116.76
Last 5	09:40:30	1500.04	17.09	6.17	0.10	0.22	10.53	4.10	111.71
Last 5	09:45:30	1800.03	17.14	6.17	0.10	0.02	10.53	4.13	108.14
Variance 0			0.50	0.00	-0.00			-0.06	-7.58
Variance 1			0.27	0.01	0.00			-0.09	-5.05
Variance 2			0.05	0.00	0.00			0.03	-3.57

**Notes**

1800s sample 950 gwc16

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 11:27:55

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 48 ft

Pump placement from TOC 48 ft

**Well Information:**

Well ID gwc17  
Well diameter 2 in  
Well Total Depth 53.20 ft  
Screen Length 10 ft  
Depth to Water 20.36 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.2058328 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	11:06:57	600.03	18.43	6.21	0.11	7.92	21.82	1.65	94.94
Last 5	11:11:57	900.03	18.53	6.22	0.11	5.73	21.83	1.72	89.95
Last 5	11:16:57	1200.03	18.68	6.22	0.11	5.12	21.82	1.76	86.84
Last 5	11:21:57	1500.04	18.69	6.22	0.11	4.33	21.82	1.79	84.50
Last 5	11:26:57	1800.03	18.79	6.22	0.11	3.78	21.83	1.80	82.76
Variance 0			0.14	0.01	-0.00			0.04	-3.12
Variance 1			0.01	-0.00	-0.00			0.04	-2.33
Variance 2			0.10	0.00	-0.00			0.01	-1.75

**Notes**

1800s. Gwc17. Crg

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 13:30:22

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 25 ft

Pump placement from TOC 25 ft

**Well Information:**

Well ID gwc18  
Well diameter 2 in  
Well Total Depth 29.79 ft  
Screen Length 10 ft  
Depth to Water 13.71 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1503296 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	13:07:51	600.90	17.06	6.03	0.09	0.35	13.78	1.49	90.53
Last 5	13:12:51	900.90	16.91	6.02	0.09	0.46	13.78	1.48	84.84
Last 5	13:17:51	1200.90	16.94	6.02	0.09	0.14	13.78	1.45	81.80
Last 5	13:22:52	1501.97	16.87	6.03	0.09	0.24	13.78	1.46	79.60
Last 5	13:27:52	1801.92	17.05	6.03	0.09	0.01	13.78	1.42	78.03
Variance 0			0.03	-0.00	-0.00			-0.03	-3.04
Variance 1			-0.07	0.01	-0.00			0.01	-2.21
Variance 2			0.18	0.00	-0.00			-0.04	-1.56

**Notes**

1800s crg dup-04

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 14:47:17

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 32 ft

Pump placement from TOC 32 ft

**Well Information:**

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.52 ft  
Screen Length 10 ft  
Depth to Water 8.18 ft

**Pumping Information:**

Final Pumping Rate 0 mL/min  
Total System Volume 0.1672219 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.28 in  
Total Volume Pumped 3.2 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	14:24:48	600.03	17.72	6.33	0.09	6.99	8.79	0.68	118.68
Last 5	14:29:48	900.03	17.38	6.20	0.08	6.45	9.07	0.61	114.48
Last 5	14:34:48	1200.09	17.36	6.14	0.08	4.28	9.11	0.55	92.89
Last 5	14:39:48	1500.09	17.41	6.12	0.08	1.58	9.13	0.50	83.41
Last 5	14:44:48	1800.10	17.72	6.10	0.08	2.45	9.12	0.48	83.22
Variance 0			-0.02	-0.06	-0.00			-0.06	-21.58
Variance 1			0.05	-0.02	-0.00			-0.05	-9.48
Variance 2			0.32	-0.02	-0.00			-0.02	-0.18

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 16:33:01

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 61 ft

Pump placement from TOC 61 ft

**Well Information:**

Well ID gwc20  
Well diameter 2 in  
Well Total Depth 66.51 ft  
Screen Length 10 ft  
Depth to Water 5.85 ft

**Pumping Information:**

Final Pumping Rate 125 mL/min  
Total System Volume 0.2372041 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	16:11:27	300.15	18.61	6.29	0.11	4.94	5.95	0.97	93.93
Last 5	16:16:27	600.04	18.37	6.28	0.11	5.46	5.95	0.92	83.07
Last 5	16:21:27	900.03	18.26	6.28	0.11	5.09	5.95	0.89	78.17
Last 5	16:27:03	1236.03	17.99	6.27	0.11	4.92	5.96	0.94	81.16
Last 5	16:32:03	1536.03	17.80	6.27	0.11	4.89	5.96	0.95	74.61
Variance 0			-0.11	0.00	0.00			-0.02	-4.90
Variance 1			-0.28	-0.00	-0.00			0.05	2.99
Variance 2			-0.18	-0.01	0.00			0.01	-6.55

**Notes**

1500s. Crg. Gwc20

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-30 16:30:58

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 33 ft

Pump placement from TOC 33 ft

**Well Information:**

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.18 ft  
Screen Length 10 ft  
Depth to Water 13.21 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.169635 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 23.04 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	16:09:00	600.04	18.32	5.97	0.05	0.38	14.37	1.27	164.44
Last 5	16:14:00	900.03	18.26	5.91	0.05	0.46	14.70	1.20	170.47
Last 5	16:19:00	1200.03	18.14	5.89	0.05	1.00	14.88	1.15	173.85
Last 5	16:24:00	1500.03	18.08	5.88	0.05	0.37	15.01	1.13	175.78
Last 5	16:29:00	1800.03	17.98	5.88	0.05	0.84	15.13	1.08	174.86
Variance 0			-0.12	-0.02	-0.00			-0.05	3.38
Variance 1			-0.06	-0.01	-0.00			-0.02	1.93
Variance 2			-0.10	-0.00	-0.00			-0.05	-0.92

**Notes**

Significant drawdown

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-03-31 09:45:55

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 73 ft

Pump placement from TOC 73 ft

**Well Information:**

Well ID gwc22  
Well diameter 2 in  
Well Total Depth 77.65 ft  
Screen Length 10 ft  
Depth to Water 22.94 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.2661624 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:25:08	1200.03	16.48	6.53	132.37	0.75	23.55	3.29	79.57
Last 5	09:30:08	1500.03	16.52	6.53	132.64	0.62	23.54	2.98	77.29
Last 5	09:35:08	1800.04	16.56	6.52	133.18	0.58	23.54	3.07	76.01
Last 5	09:40:08	2100.03	16.65	6.53	133.14	0.56	23.54	3.06	74.57
Last 5	09:45:08	2400.03	16.69	6.53	132.91	0.52	23.54	2.96	73.33
Variance 0			0.04	-0.01	0.54			0.08	-1.27
Variance 1			0.09	0.01	-0.04			-0.01	-1.44
Variance 2			0.04	0.00	-0.23			-0.10	-1.25

**Notes**

2400 s. 0.52ntu gwc22 cg

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-29 16:11:58

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 354698  
Turbidity Make/Model

**Pump Information:**

Pump Model/Type samplepro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 63 ft

Pump placement from TOC 63 ft

**Well Information:**

Well ID gwc23  
Well diameter 2 in  
Well Total Depth 67.78 ft  
Screen Length 10 ft  
Depth to Water 33.55 ft

**Pumping Information:**

Final Pumping Rate 50 mL/min  
Total System Volume 0.3670305 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:50:10	20110.28	19.87	4.89	0.05	11.25	33.68	4.01	191.12
Last 5	15:55:10	20410.38	19.91	4.89	0.05	11.20	33.68	4.14	193.08
Last 5	16:00:10	20710.28	20.07	4.86	0.05	10.80	33.68	4.24	192.76
Last 5	16:05:10	21010.28	19.96	4.86	0.05	10.30	33.68	4.35	192.18
Last 5	16:10:10	21310.28	20.02	4.87	0.05	9.93	33.68	4.34	192.01
Variance 0			0.15	-0.03	0.00			0.10	-0.31
Variance 1			-0.11	0.00	0.00			0.11	-0.58
Variance 2			0.06	0.01	0.00			-0.00	-0.17

**Notes**

Gwc23  
CRG gwc23

**Grab Samples**

**Project:** Plant Wansley

**Field Staff:** Kristen Jurinko/John Hodges/Chris Gargan

**Date:** 3/30/2016

**Well ID:** GWC-24

**Weather:** Sunny 70F

<b>Well Depth (ft BTOC)</b> 51.40	<b>Sampling Device</b> Polyethylene Bailer
<b>Screen Depth (ft BTOC)</b> 41.40 - 51.40	<b>Tubing Type</b> NA
<b>Well Diameter (in)</b> 2	<b>Top of Pump/ Tubing Length (ft)</b> NA
<b>Water Level (ft BTOC)</b> 40.74	<b>Volume Purged (L)</b> 6.59
<b>Sample Time</b> 0930	<b>Drawdown (in)</b> NA
<b>SmarTROLL Serial #</b> R24970	<b>Lamotte Serial #</b> 2279-2612

**Purge Data/Field Parameters**

Time	pH (S.U.)	ORP (mV)	Cond. (mS/cm)	DO (mg/L)	Temp (°C)	Turb (NTU)	DTW (ft BTOC)	Pump Rate (mL/min)
930	8.68	177.1	0.05	8.54	15.92	7.24	NA	NA

**Sample Analysis**

Container Type	Preservative	Analysis
500 mL plastic	HNO3	Metals app. III & IV EPA 6020 & EPA 7470
500 mL plastic	Ice	Cl, F, SO4 EPA 300 TDS SM2540C

Notes: Bailed dry on 3/29/16 at 1500, sampled on 3/30/16 at 930. Sampled from the first bailer, purge data from the second bailer. Not enough water in well to sample for radium 226 and 228 analysis.



Product Name: Low-Flow System

Date: 2016-03-28 14:04:43

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 354698  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 53 ft

Pump placement from TOC 53 ft

**Well Information:**

Well ID gwc25  
Well diameter 2 in  
Well Total Depth 57.95 ft  
Screen Length 10 ft  
Depth to Water 47.70 ft

**Pumping Information:**

Final Pumping Rate 60 mL/min  
Total System Volume 0.3428987 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	13:42:18	2100.03	19.22	5.08	0.15	3.38	48.74	3.17	176.10
Last 5	13:47:18	2400.03	18.73	5.10	0.15	3.16	48.77	3.41	168.79
Last 5	13:52:18	2700.03	18.78	5.10	0.15	2.89	48.80	3.52	165.76
Last 5	13:57:18	3000.03	19.22	5.10	0.15	2.52	48.81	3.56	164.33
Last 5	14:02:18	3300.14	19.73	5.10	0.15	2.63	48.79	3.81	163.57
Variance 0			0.05	-0.00	0.00			0.12	-3.03
Variance 1			0.45	-0.01	-0.00			0.03	-1.43
Variance 2			0.51	0.01	0.00			0.25	-0.76

**Notes**

Gwc25. Cg  
Gwc25 3300s. 2.63 ntu crg

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-24 12:27:50

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 354698  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 55 ft

Pump placement from TOC 55 ft

**Well Information:**

Well ID gwc26  
Well diameter 2 in  
Well Total Depth 59.98 ft  
Screen Length 10 ft  
Depth to Water 26.63 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.347725 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	12:05:34	7499.87	18.95	5.62	49.44	7.75	26.56	6.73	163.98
Last 5	12:10:34	7799.84	19.00	5.67	49.22	7.24	26.56	6.72	160.83
Last 5	12:15:34	8099.83	19.06	5.66	49.60	6.87	26.56	6.71	160.98
Last 5	12:20:34	8399.83	20.20	5.66	49.12	6.01	26.56	6.59	161.90
Last 5	12:25:34	8699.83	20.96	5.64	49.17	4.97	26.56	6.51	165.23
Variance 0			0.06	-0.01	0.38			-0.01	0.15
Variance 1			1.14	0.00	-0.48			-0.13	0.92
Variance 2			0.76	-0.03	0.05			-0.08	3.32

Notes  
Cg

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-23 15:19:23

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 354698  
Turbidity Make/Model

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 73 ft

Pump placement from TOC 73 ft

**Well Information:**

Well ID gwc27  
Well diameter 2 in  
Well Total Depth 78.04 ft  
Screen Length 10 ft  
Depth to Water 39.93 ft

**Pumping Information:**

Final Pumping Rate 50 mL/min  
Total System Volume 0.3911624 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 6.5 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:54:50	6601.71	17.99	5.61	42.55	7.44	40.91	4.17	85.47
Last 5	14:59:50	6901.71	18.31	5.60	42.11	6.53	40.92	4.14	86.91
Last 5	15:04:50	7201.70	18.38	5.58	41.34	5.80	40.92	4.14	89.31
Last 5	15:09:50	7501.71	18.55	5.57	41.26	5.49	40.92	4.13	90.10
Last 5	15:14:50	7801.71	18.91	5.57	40.99	4.87	40.92	4.14	91.28
Variance 0			0.08	-0.02	-0.77			0.00	2.40
Variance 1			0.17	-0.01	-0.07			-0.01	0.79
Variance 2			0.35	0.00	-0.28			0.01	1.18

**Notes**

Gwc27. 7800s. Cg

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-23 12:22:50

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 45 ft

Pump placement from TOC 45 ft

**Well Information:**

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.85 ft  
Screen Length 10 ft  
Depth to Water 24.78 ft

**Pumping Information:**

Final Pumping Rate 75 mL/min  
Total System Volume 0.1985932 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	12:00:06	300.14	19.95	7.40	0.05	3.37	25.65	5.16	98.88
Last 5	12:05:06	600.03	19.81	7.08	0.05	3.13	25.89	5.11	110.05
Last 5	12:10:06	900.03	19.51	6.92	0.05	4.38	26.08	4.95	117.39
Last 5	12:15:06	1200.03	19.48	6.82	0.05	4.20	26.19	5.01	124.24
Last 5	12:20:06	1500.03	19.32	6.78	0.05	3.78	26.30	5.06	126.10
Variance 0			-0.31	-0.16	-0.00			-0.16	7.34
Variance 1			-0.02	-0.09	0.00			0.06	6.85
Variance 2			-0.16	-0.05	0.00			0.05	1.86

**Notes**

**Grab Samples**

**Project:** Plant Wansley

**Field Staff:** Kristen Jurinko/John Hodges/Chris Gargan

**Date:** 3/30/2016

**Well ID:** GWC-31

**Weather:** Sunny 70F

<b>Well Depth (ft BTOC)</b> 37.94	<b>Sampling Device</b> Polyethylene Bailer
<b>Screen Depth (ft BTOC)</b> 27.94 - 37.94	<b>Tubing Type</b> NA
<b>Well Diameter (in)</b> 2	<b>Top of Pump/ Tubing Length (ft)</b> NA
<b>Water Level (ft BTOC)</b> 29.00	<b>Volume Purged (L)</b> 5.53
<b>Sample Time</b> 1015	<b>Drawdown (in)</b> NA
<b>SmarTROLL Serial #</b> R24970	<b>Lamotte Serial #</b> 2279-2612

**Purge Data/Field Parameters**

Time	pH (S.U.)	ORP (mV)	Cond. (mS/cm)	DO (mg/L)	Temp (°C)	Turb (NTU)	DTW (ft BTOC)	Pump Rate (mL/min)
1015	7.21	161.3	0.12	7.50	18.28	15.10	NA	NA

**Sample Analysis**

Container Type	Preservative	Analysis
500 mL plastic	HNO3	Metals app. III & IV EPA 6020 & EPA 7470
500 mL plastic	Ice	Cl, F, SO4 EPA 300 TDS SM2540C

Notes: Bailed dry on 3/29/16 at 1545, sampled on 3/30/16 at 1015. Sampled from first bailer, took purge data from second bailer. Not enough water in well to sample for radium 226 and 228 analysis.





Product Name: Low-Flow System

Date: 2016-03-23 14:30:59

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 28 ft

Pump placement from TOC 28 ft

**Well Information:**

Well ID gwc32  
Well diameter 2 in  
Well Total Depth 31.48 ft  
Screen Length 10 ft  
Depth to Water 24.59 ft

**Pumping Information:**

Final Pumping Rate 75 mL/min  
Total System Volume 0.1575691 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.64 in  
Total Volume Pumped 2.63 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:01:56	600.03	21.10	6.21	98.46	0.95	25.04	6.84	140.32
Last 5	14:06:56	900.03	20.48	6.21	97.61	1.08	25.19	6.86	131.70
Last 5	14:11:56	1200.03	21.64	6.21	97.30	0.68	25.30	6.96	128.91
Last 5	14:16:56	1500.03	20.62	6.21	96.99	0.66	25.46	6.80	123.71
Last 5	14:21:57	1801.03	21.37	6.22	96.42	0.76	25.56	6.98	123.66
Variance 0			1.16	0.00	-0.31			0.10	-2.78
Variance 1			-1.02	-0.00	-0.30			-0.16	-5.20
Variance 2			0.76	0.02	-0.57			0.18	-0.05

**Notes**

Sampled at 1435 on 3/23/16 by . Below well screen.

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-23 15:01:31

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder Associates  
Project Name Wansley CCR LF  
Site Name Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 18 ft

Pump placement from TOC 18 ft

**Well Information:**

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.14 ft  
Screen Length 10 ft  
Depth to Water 13.60 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1334373 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 21.84 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 0
Stabilization									
Last 5	14:39:33	599.93	21.37	6.73	0.08	0.75	14.39	6.79	120.95
Last 5	14:44:33	899.93	20.19	6.75	0.16	0.88	14.55	4.37	126.83
Last 5	14:49:33	1199.93	19.85	6.74	0.16	0.97	14.90	4.32	131.77
Last 5	14:54:33	1499.93	19.77	6.73	0.15	1.07	15.11	4.27	135.86
Last 5	14:59:33	1799.93	20.30	6.70	0.15	0.69	15.42	4.16	140.49
Variance 0			-0.34	-0.01	-0.00			-0.05	4.94
Variance 1			-0.08	-0.01	-0.00			-0.05	4.10
Variance 2			0.54	-0.03	-0.00			-0.11	4.62

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-24 10:09:27

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name Wansley CCR GW LF  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 43 ft

Pump placement from TOC 43 ft

**Well Information:**

Well ID gwc34  
Well diameter 2 in  
Well Total Depth 48.48 ft  
Screen Length 10 ft  
Depth to Water 4.32 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1937669 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 4.5 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Stabilization									
Last 5	09:36:31	1500.04	15.22	7.07	56.19	1.56	4.32	6.82	94.02
Last 5	09:41:31	1800.03	15.36	6.95	55.29	0.93	4.32	5.94	94.20
Last 5	09:46:31	2100.03	15.51	6.81	54.99	1.15	4.32	5.26	94.02
Last 5	09:51:31	2400.03	15.61	6.72	54.79	1.38	4.32	5.06	92.98
Last 5	09:56:31	2700.03	15.78	6.66	54.38	1.82	4.32	4.81	93.36
Variance 0			0.15	-0.14	-0.30			-0.68	-0.18
Variance 1			0.11	-0.08	-0.20			-0.20	-1.04
Variance 2			0.16	-0.07	-0.42			-0.25	0.38

**Notes**

Sampled at 1000 on 3/24/16 by kj

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-03-24 10:12:22

**Project Information:**

Operator Name KNJ/JBH/CRG  
Company Name Golder  
Project Name  
Site Name Wansley lf  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 339100  
Turbidity Make/Model

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 35 ft

Pump placement from TOC 35 ft

**Well Information:**

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.09 ft  
Screen Length 10 ft  
Depth to Water 8.39 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1744614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 5 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:51:54	1800.03	17.09	6.81	52.19	2.10	8.40	3.05	251.23
Last 5	09:56:54	2100.03	17.41	6.60	52.20	0.57	8.40	3.03	251.38
Last 5	10:01:54	2400.03	17.72	6.45	51.89	0.89	8.40	3.00	251.43
Last 5	10:06:54	2700.03	17.85	6.37	51.74	0.68	8.40	3.02	251.47
Last 5	10:11:54	3000.03	17.65	6.32	51.66	0.70	8.40	3.05	251.16
Variance 0			0.31	-0.14	-0.31			-0.03	0.04
Variance 1			0.14	-0.08	-0.15			0.03	0.04
Variance 2			-0.21	-0.05	-0.08			0.03	-0.31

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-20 10:07:50

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 44 ft

Pump placement from TOC 44 ft

**Well Information:**

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.27 ft  
Screen Length 10 ft  
Depth to Water 18.63 ft

**Pumping Information:**

Final Pumping Rate 60 mL/min  
Total System Volume 0.1961801 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:45:56	1800.02	17.12	5.62	20.27	1.74	20.88	7.10	192.60
Last 5	09:50:56	2100.02	17.12	5.62	20.26	2.86	20.90	7.32	191.68
Last 5	09:55:56	2400.02	17.10	5.63	20.25	1.80	21.10	6.99	190.32
Last 5	10:00:56	2700.02	17.16	5.63	20.22	2.00	21.16	6.88	189.46
Last 5	10:05:57	3000.48	17.14	5.62	20.20	2.82	21.20	6.85	189.26
Variance 0			-0.02	0.00	-0.02			-0.34	-1.37
Variance 1			0.06	0.00	-0.03			-0.10	-0.86
Variance 2			-0.02	-0.00	-0.02			-0.03	-0.20

**Notes**

GWA-1. 1010 5/20/16

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 10:13:50

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 53 ft

Pump placement from TOC 53 ft

**Well Information:**

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 58.88 ft  
Screen Length 10 ft  
Depth to Water 41.28 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.3428987 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	09:49:39	600.02	19.92	5.88	60.47	5.70	41.32	7.92	165.08
Last 5	09:54:39	900.02	19.87	5.86	60.62	2.25	41.32	7.93	164.59
Last 5	09:59:39	1200.02	19.64	5.86	60.39	1.49	41.32	7.88	162.87
Last 5	10:04:39	1500.02	19.55	5.85	60.33	1.88	41.32	7.84	161.11
Last 5	10:09:39	1800.02	19.72	5.86	60.40	1.29	41.32	7.77	159.19
Variance 0			-0.23	0.00	-0.23			-0.05	-1.73
Variance 1			-0.08	-0.00	-0.07			-0.04	-1.76
Variance 2			0.17	0.00	0.07			-0.08	-1.92

**Notes**

GWA-2 1015 5/24/16

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-19 16:21:27

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 33 ft

Pump placement from TOC 33 ft

**Well Information:**

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 37.83 ft  
Screen Length 10 ft  
Depth to Water 22.15 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.169635 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.68 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	15:39:45	600.02	19.76	6.39	220.04	12.30	22.30	0.34	-4.09
Last 5	15:44:45	900.03	19.64	6.40	243.82	8.04	22.30	0.30	-11.71
Last 5	15:49:45	1200.02	20.25	6.47	282.03	6.33	22.30	0.24	-31.01
Last 5	15:54:45	1499.97	20.38	6.47	280.74	5.03	22.30	0.22	-30.56
Last 5	15:59:45	1799.97	21.00	6.45	272.03	4.00	22.29	0.24	-27.09
Variance 0			0.61	0.07	38.21			-0.06	-19.30
Variance 1			0.12	-0.00	-1.28			-0.02	0.46
Variance 2			0.62	-0.02	-8.72			0.01	3.46

**Notes**

Sampled by KJ/BH at 1605 on 5/19/16.

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-23 13:27:30

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 41 ft

Pump placement from TOC 41 ft

**Well Information:**

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 46.25 ft  
Screen Length 10 ft  
Depth to Water 25.08 ft

**Pumping Information:**

Final Pumping Rate 45 mL/min  
Total System Volume 0.3139405 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:03:16	3000.80	30.56	6.30	65.70	1.07	25.76	6.01	119.44
Last 5	13:08:16	3300.80	30.67	6.30	65.74	1.12	25.80	5.97	119.17
Last 5	13:13:16	3600.80	31.07	6.29	66.36	1.09	25.84	5.92	117.90
Last 5	13:18:16	3900.80	31.64	6.29	66.47	0.94	25.88	5.84	118.83
Last 5	13:23:16	4200.80	31.31	6.29	65.42	1.00	25.90	5.89	119.59
Variance 0			0.40	-0.01	0.62			-0.05	-1.27
Variance 1			0.56	-0.00	0.11			-0.07	0.93
Variance 2			-0.33	0.01	-1.05			0.05	0.76

**Notes**

GWA-28 5/23/16. 1330

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-19 17:05:55

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 52 ft

Pump placement from TOC 52 ft

**Well Information:**

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.09 ft  
Screen Length 10 ft  
Depth to Water 44.24 ft

**Pumping Information:**

Final Pumping Rate 50 mL/min  
Total System Volume 0.3404855 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 6.67 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	16:43:50	6600.94	25.71	5.97	92.50	5.32	44.24	4.82	129.86
Last 5	16:48:50	6900.94	25.56	5.96	92.45	5.24	44.24	4.80	129.15
Last 5	16:53:50	7200.86	25.52	5.96	92.39	5.17	44.24	4.79	128.28
Last 5	16:58:50	7500.92	25.52	5.96	92.27	5.05	44.24	4.77	128.29
Last 5	17:03:50	7800.87	25.25	5.95	92.66	4.98	44.24	4.77	128.43
Variance 0			-0.05	-0.00	-0.06			-0.02	-0.87
Variance 1			0.00	0.00	-0.11			-0.02	0.00
Variance 2			-0.27	-0.00	0.39			-0.00	0.15

**Notes**

GWA-29. 5/19/16. 1710

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-23 15:45:12

**Project Information:**

Operator Name cg/Kj/bh/tm  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 31 ft

Pump placement from TOC 31 ft

**Well Information:**

Well ID GWC-5  
Well diameter 2 in  
Well Total Depth 36.75 ft  
Screen Length 10 ft  
Depth to Water 18.13 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1648087 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 16.92 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	15:22:29	600.03	21.93	6.53	267.73	1.42	19.28	3.70	78.94
Last 5	15:27:29	900.02	22.97	6.51	270.14	1.88	19.33	3.56	76.59
Last 5	15:32:29	1200.02	22.93	6.50	267.90	1.48	13.41	3.45	73.96
Last 5	15:37:29	1500.02	22.66	6.48	266.23	1.34	13.50	3.37	72.63
Last 5	15:42:29	1800.02	22.52	6.47	266.89	0.78	13.54	3.24	70.82
Variance 0			-0.04	-0.01	-2.24			-0.11	-2.63
Variance 1			-0.27	-0.02	-1.67			-0.08	-1.33
Variance 2			-0.13	-0.01	0.66			-0.13	-1.81

**Notes**

Sampled at 1545 on 5/23/16 by KJ

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 10:17:16

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 25 ft

Pump placement from TOC 25 ft

**Well Information:**

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 30.60 ft  
Screen Length 10 ft  
Depth to Water 18.60 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1503296 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.08 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:49:36	600.02	19.22	5.99	172.01	0.77	18.69	0.27	640.54
Last 5	09:54:36	900.08	19.42	5.99	172.35	0.78	18.69	0.24	656.01
Last 5	09:59:36	1200.03	19.58	5.99	172.14	0.66	18.69	0.23	661.05
Last 5	10:04:38	1502.02	19.52	5.99	172.78	0.66	18.69	0.18	680.85
Last 5	10:09:48	1812.02	19.62	6.00	173.56	0.68	18.69	0.17	711.26
Variance 0			0.16	0.00	-0.21			-0.02	5.04
Variance 1			-0.06	-0.00	0.64			-0.04	19.80
Variance 2			0.10	0.01	0.78			-0.01	30.42

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 12:30:03

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 21.19 ft

Pump placement from TOC 21.19 ft

**Well Information:**

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 26.19 ft  
Screen Length 10 ft  
Depth to Water 8.34 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1411353 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 36.96 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	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:04:01	1500.02	22.04	6.39	800.53	1.27	10.68	0.17	1019.93
Last 5	12:09:01	1800.02	22.13	6.39	801.96	1.46	10.88	0.16	1025.23
Last 5	12:14:01	2100.02	22.09	6.39	796.38	2.05	11.12	0.14	1030.02
Last 5	12:19:01	2400.02	22.03	6.39	798.12	1.52	11.32	0.13	1031.49
Last 5	12:24:03	2702.02	22.94	6.38	794.29	1.21	11.42	0.15	1031.47
Variance 0			-0.04	-0.00	-5.58			-0.02	4.80
Variance 1			-0.06	-0.00	1.73			-0.01	1.47
Variance 2			0.91	-0.01	-3.82			0.02	-0.02

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 13:38:51

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 15 ft

Pump placement from TOC ft

**Well Information:**

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20.62 ft  
Screen Length 10 ft  
Depth to Water 10.30 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1261977 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 52 in  
Total Volume Pumped 20 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:10:09	1200.17	22.27	5.95	306.83	1.38	11.29	0.33	56.55
Last 5	13:20:09	1800.17	19.31	6.07	306.72	1.42	13.15	0.32	26.71
Last 5	13:25:09	2100.17	18.95	6.16	296.15	0.79	14.29	0.22	37.82
Last 5	13:30:09	2400.17	18.68	6.16	302.53	0.98	15.31	0.23	44.33
Last 5	13:35:09	2700.17	18.60	6.17	304.23	1.09	16.26	0.22	36.93
Variance 0			-0.35	0.09	-10.56			-0.10	11.11
Variance 1			-0.27	-0.00	6.38			0.00	6.52
Variance 2			-0.08	0.01	1.69			-0.01	-7.40

**Notes**

Purged more than 3 volumes and slowed pump rate to 100mL/min for sampling due to drawdown

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 14:17:33

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 14.23 ft

Pump placement from TOC 14.23 ft

**Well Information:**

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.23 ft  
Screen Length 10 ft  
Depth to Water 7.80 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1243396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.36 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	13:55:22	600.02	22.18	5.83	239.09	1.43	7.98	0.19	997.77
Last 5	14:00:22	900.02	22.50	5.82	239.12	1.37	8.02	0.17	1022.21
Last 5	14:05:22	1200.02	22.89	5.81	243.86	1.48	8.03	0.17	1035.28
Last 5	14:10:24	1502.02	22.80	5.81	240.62	1.24	8.06	0.15	1048.27
Last 5	14:15:24	1802.02	23.38	5.81	242.20	1.39	8.08	0.15	1054.43
Variance 0			0.39	-0.01	4.73			-0.00	13.07
Variance 1			-0.09	0.00	-3.24			-0.02	12.99
Variance 2			0.57	-0.01	1.58			0.01	6.16

**Notes**

**Grab Samples**





Product Name: Low-Flow System

Date: 2016-05-25 10:09:49

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 13.12 ft

Pump placement from TOC 13.12 ft

**Well Information:**

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.12 ft  
Screen Length 10 ft  
Depth to Water 06.95 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.121661 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:47:45	600.02	19.37	6.31	548.83	4.31	7.01	0.17	27.73
Last 5	09:52:45	900.02	19.41	6.31	547.35	2.05	7.03	0.14	66.23
Last 5	09:57:45	1200.02	19.67	6.31	548.07	2.68	7.03	0.15	98.63
Last 5	10:02:45	1500.03	19.83	6.31	546.62	2.33	7.02	0.15	117.82
Last 5	10:07:47	1802.02	19.82	6.31	545.71	1.67	7.02	0.13	136.09
Variance 0			0.26	-0.00	0.72			0.02	32.40
Variance 1			0.16	0.00	-1.45			0.00	19.20
Variance 2			-0.01	0.00	-0.91			-0.03	18.27

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 11:03:38

**Project Information:**

Operator Name KJ/BH/Tim/cv  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter 0.125 in  
Tubing Length 35 ft

Pump placement from TOC 35 ft

**Well Information:**

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.60 ft  
Screen Length 10 ft  
Depth to Water 26.65 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1744614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 24 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10	+/- 0
Last 5	10:26:23	600.03	24.26	7.32	254.79	0.68	28.39	0.43	-124.84
Last 5	10:31:23	900.03	25.90	7.38	257.55	1.08	28.51	0.46	-123.71
Last 5	10:36:23	1200.03	26.11	7.41	255.31	1.38	28.61	0.50	-114.48
Last 5	10:41:23	1500.03	26.09	7.43	254.88	2.04	28.65	0.56	-120.43
Last 5	10:46:23	1800.02	25.60	7.44	255.12	1.60	28.65	0.72	-113.18
Variance 0			0.21	0.04	-2.24			0.04	9.22
Variance 1			-0.02	0.02	-0.43			0.06	-5.94
Variance 2			-0.50	0.01	0.24			0.16	7.25

**Notes**

Sampled at 1500 by KJ at 5/25/16

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 12:05:19

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 84.30 ft

Pump placement from TOC 84.30 ft

**Well Information:**

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 89.30 ft  
Screen Length 10 ft  
Depth to Water 6.31 ft

**Pumping Information:**

Final Pumping Rate 120 mL/min  
Total System Volume 0.2934313 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.56 in  
Total Volume Pumped 3.96 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:42:22	600.02	20.26	6.80	62.90	2.41	6.40	4.77	717.17
Last 5	11:47:22	900.03	20.24	6.78	61.78	1.80	6.41	4.94	752.76
Last 5	11:52:22	1200.02	20.40	6.77	60.99	2.00	6.42	4.96	786.72
Last 5	11:57:22	1500.02	20.28	6.76	61.33	1.81	6.44	5.04	817.69
Last 5	12:02:23	1801.02	20.49	6.76	61.25	1.66	6.44	4.90	851.31
Variance 0			0.17	-0.01	-0.79			0.02	33.96
Variance 1			-0.12	-0.01	0.34			0.08	30.96
Variance 2			0.21	0.00	-0.08			-0.14	33.62

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 11:59:51

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 18 ft

Pump placement from TOC ft

**Well Information:**

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 23.57 ft  
Screen Length 10 ft  
Depth to Water 9.95 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1334373 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 4 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:39:03	1200.02	21.31	5.59	271.53	2.63	9.97	0.19	88.85
Last 5	11:44:03	1500.02	20.98	5.58	271.03	2.46	9.97	0.18	91.30
Last 5	11:49:03	1800.02	20.69	5.56	273.34	2.17	9.97	0.17	95.28
Last 5	11:54:03	2100.02	20.87	5.54	272.15	2.19	9.97	0.15	99.00
Last 5	11:59:03	2400.02	21.00	5.52	272.95	1.89	9.97	0.16	102.37
Variance 0			-0.29	-0.02	2.31			-0.01	3.98
Variance 1			0.18	-0.02	-1.19			-0.02	3.72
Variance 2			0.13	-0.02	0.80			0.00	3.37

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 14:07:54

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 45 ft

Pump placement from TOC ft

**Well Information:**

Well ID GWC-15  
Well diameter 2 in  
Well Total Depth 50.43 ft  
Screen Length 10 ft  
Depth to Water 7.15 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1985932 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:47:40	600.26	23.68	6.53	112.18	1.54	7.21	3.12	78.85
Last 5	13:52:40	900.26	23.52	6.53	112.59	1.54	7.21	3.07	76.73
Last 5	13:57:40	1200.26	23.30	6.53	111.68	1.90	7.21	3.06	74.94
Last 5	14:02:40	1500.26	23.12	6.52	111.80	1.43	7.21	3.06	73.74
Last 5	14:07:40	1800.26	23.64	6.52	113.08	1.52	7.21	3.04	73.63
Variance 0			-0.23	0.00	-0.91			-0.01	-1.79
Variance 1			-0.17	-0.00	0.11			-0.01	-1.20
Variance 2			0.52	-0.01	1.28			-0.02	-0.12

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 13:39:57

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 22.08 ft

Pump placement from TOC 22.08 ft

**Well Information:**

Well ID GWC-16  
Well diameter 2 in  
Well Total Depth 27.08 ft  
Screen Length 10 ft  
Depth to Water 11.65 ft

**Pumping Information:**

Final Pumping Rate 125 mL/min  
Total System Volume 0.1432831 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.6 in  
Total Volume Pumped 4 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:17:09	600.02	21.95	6.22	98.73	2.00	11.69	3.92	986.16
Last 5	13:22:10	900.55	22.20	6.23	100.19	1.40	11.69	3.95	1028.28
Last 5	13:27:10	1200.55	22.62	6.22	99.45	1.69	11.69	3.90	1049.21
Last 5	13:32:10	1500.55	22.09	6.23	99.88	1.65	11.70	3.88	1064.53
Last 5	13:37:12	1802.55	22.03	6.22	99.96	1.62	11.70	3.86	1072.81
Variance 0			0.43	-0.01	-0.74			-0.05	20.93
Variance 1			-0.53	0.00	0.44			-0.02	15.32
Variance 2			-0.06	-0.00	0.08			-0.02	8.28

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 15:17:56

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 48.20 ft

Pump placement from TOC 48.20 ft

**Well Information:**

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.20 ft  
Screen Length 10 ft  
Depth to Water 21.45 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.2063154 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9.34 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10	+/- 0
Last 5	14:57:21	600.03	23.61	6.23	112.64	6.85	22.35	1.44	1052.63
Last 5	15:02:21	900.02	24.08	6.23	114.64	4.58	22.38	2.16	1054.35
Last 5	15:07:21	1200.02	24.20	6.24	113.61	4.51	22.41	2.23	1057.94
Last 5	15:12:22	1501.02	24.01	6.24	114.36	4.84	22.41	2.27	1058.99
Last 5	15:17:23	1802.02	23.97	6.24	113.39	4.32	22.41	2.22	1061.13
Variance 0			0.11	0.00	-1.03			0.06	3.58
Variance 1			-0.19	0.00	0.75			0.04	1.05
Variance 2			-0.03	0.00	-0.97			-0.04	2.14

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-26 11:01:24

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 24.79 ft

Pump placement from TOC 24.79 ft

**Well Information:**

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 29.79 ft  
Screen Length 10 ft  
Depth to Water 15.68 ft

**Pumping Information:**

Final Pumping Rate 180 mL/min  
Total System Volume 0.1498228 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 4.95 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10	+/- 0
Stabilization									
Last 5	10:40:02	600.03	18.48	6.02	91.68	1.16	15.72	1.60	939.40
Last 5	10:45:02	900.05	18.47	6.02	91.93	1.14	15.73	1.59	947.76
Last 5	10:50:02	1200.05	17.83	6.02	91.75	1.16	15.74	1.54	953.85
Last 5	10:55:02	1500.06	18.11	6.01	91.61	1.13	15.74	1.52	957.71
Last 5	11:00:02	1800.06	17.90	6.01	91.16	1.18	15.74	1.51	961.98
Variance 0			-0.64	0.00	-0.19			-0.06	6.09
Variance 1			0.28	-0.01	-0.14			-0.02	3.85
Variance 2			-0.21	-0.00	-0.45			-0.01	4.27

**Notes**

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-26 12:53:59

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 417056  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 32.40 ft

Pump placement from TOC 32.40 ft

**Well Information:**

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.40 ft  
Screen Length 10 ft  
Depth to Water 10.58 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1681871 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.64 in  
Total Volume Pumped 3.2 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10	+/- 0
Last 5	12:32:29	600.02	20.75	5.99	78.63	3.85	11.45	0.25	969.67
Last 5	12:37:29	900.02	21.64	5.99	80.13	3.06	11.41	0.26	973.00
Last 5	12:42:29	1200.02	21.30	5.99	77.92	4.42	11.45	0.31	972.00
Last 5	12:47:29	1500.02	21.37	5.99	78.04	3.61	11.48	0.28	971.55
Last 5	12:52:31	1802.02	21.22	5.99	78.80	3.37	11.55	0.24	971.48
Variance 0			-0.34	-0.00	-2.21			0.05	-1.00
Variance 1			0.07	0.00	0.12			-0.03	-0.46
Variance 2			-0.15	-0.00	0.76			-0.04	-0.07

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-26 10:33:12

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 61 ft

Pump placement from TOC ft

**Well Information:**

Well ID GWC-20  
Well diameter 2 in  
Well Total Depth 66.51 ft  
Screen Length 10 ft  
Depth to Water 6.92 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.2372041 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:12:15	600.08	19.00	6.29	112.75	1.07	6.98	1.59	83.80
Last 5	10:17:15	900.04	18.99	6.26	111.87	0.93	6.99	1.31	81.19
Last 5	10:22:15	1200.02	18.91	6.25	111.95	1.05	6.99	1.19	78.28
Last 5	10:27:15	1500.02	19.07	6.24	111.78	1.40	6.99	1.12	76.21
Last 5	10:32:15	1800.02	19.01	6.23	112.01	0.82	6.99	1.10	74.48
Variance 0			-0.08	-0.01	0.08			-0.12	-2.91
Variance 1			0.16	-0.01	-0.18			-0.07	-2.06
Variance 2			-0.05	-0.01	0.24			-0.02	-1.74

**Notes**

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-26 13:07:48

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 33 ft

Pump placement from TOC ft

**Well Information:**

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.20 ft  
Screen Length 10 ft  
Depth to Water 15.36 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.169635 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 23.3 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	12:46:25	600.15	19.84	5.55	44.66	0.58	16.69	1.86	125.58
Last 5	12:51:25	900.15	19.48	5.55	44.69	0.57	16.95	1.83	119.79
Last 5	12:56:25	1200.15	19.73	5.54	44.97	0.58	17.10	1.83	117.47
Last 5	13:01:25	1500.15	20.27	5.55	45.16	0.59	17.20	1.79	116.19
Last 5	13:06:25	1800.15	19.98	5.55	44.77	0.85	17.30	1.73	114.05
Variance 0			0.25	-0.01	0.28			0.00	-2.32
Variance 1			0.54	0.00	0.19			-0.04	-1.27
Variance 2			-0.29	0.01	-0.38			-0.06	-2.14

**Notes**

Drawdown stabilized

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-26 11:19:47

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 73 ft

Pump placement from TOC 73 ft

**Well Information:**

Well ID GWC-22  
Well diameter 2 in  
Well Total Depth 78.53 ft  
Screen Length 10 ft  
Depth to Water 23.91 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.2661624 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:57:49	600.03	21.12	6.77	128.39	0.43	24.45	3.10	92.78
Last 5	11:02:49	900.03	20.96	6.73	126.55	0.40	24.47	3.28	88.32
Last 5	11:07:49	1200.09	20.76	6.71	127.46	0.42	24.49	3.34	85.82
Last 5	11:12:49	1500.04	20.94	6.71	125.54	0.37	24.49	3.36	84.37
Last 5	11:17:49	1800.09	21.18	6.69	124.29	0.40	24.49	3.44	84.03
Variance 0			-0.21	-0.02	0.91			0.06	-2.50
Variance 1			0.18	-0.00	-1.92			0.01	-1.45
Variance 2			0.24	-0.01	-1.25			0.08	-0.34

**Notes**

GWC-22 5/26/16 1125. EB-04 (LF) 1155 FB-04 (LF) 1205

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-25 10:30:34

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 63 ft

Pump placement from TOC 63 ft

**Well Information:**

Well ID GWC-23  
Well diameter 2 in  
Well Total Depth 68.74 ft  
Screen Length 10 ft  
Depth to Water 34.34 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.3670305 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:07:41	600.02	20.51	6.20	48.21	5.80	34.88	6.05	138.23
Last 5	10:12:41	900.02	20.49	6.16	48.08	3.05	34.88	5.98	132.52
Last 5	10:17:41	1200.02	20.53	6.12	48.34	2.28	34.88	5.93	130.11
Last 5	10:22:41	1500.02	20.80	6.11	48.25	2.22	34.88	5.86	128.27
Last 5	10:27:41	1800.02	20.96	6.11	47.79	1.91	34.88	5.79	127.25
Variance 0			0.04	-0.04	0.26			-0.05	-2.41
Variance 1			0.28	-0.01	-0.09			-0.07	-1.83
Variance 2			0.15	-0.00	-0.46			-0.07	-1.02

**Notes**

GWC-23 5/25/16 1030

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-25 13:34:18

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 55 ft

Pump placement from TOC 55 ft

**Well Information:**

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 57.86 ft  
Screen Length 10 ft  
Depth to Water 48.48 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.347725 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:10:16	600.02	19.65	5.76	94.32	2.49	50.29	6.93	150.31
Last 5	13:15:16	900.02	19.20	5.68	100.16	1.91	50.35	6.85	161.99
Last 5	13:20:16	1200.02	19.30	5.66	101.95	3.67	50.49	6.73	162.61
Last 5	13:25:16	1500.02	19.16	5.68	102.05	4.59	50.75	6.71	158.13
Last 5	13:30:16	1800.26	19.71	5.70	101.06	4.14	50.77	6.65	153.20
Variance 0			0.10	-0.02	1.79			-0.11	0.62
Variance 1			-0.15	0.02	0.10			-0.02	-4.48
Variance 2			0.56	0.02	-0.98			-0.06	-4.93

**Notes**

GWC-25 5/24/16 1345

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 15:49:36

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 55 ft

Pump placement from TOC 55 ft

**Well Information:**

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.98 ft  
Screen Length 10 ft  
Depth to Water 27.76 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.347725 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	15:28:12	600.02	20.61	5.80	50.49	2.42	28.87	6.81	142.53
Last 5	15:33:12	900.02	20.27	5.79	50.64	1.89	28.91	6.81	138.60
Last 5	15:38:12	1200.02	19.93	5.78	50.19	1.49	29.00	6.78	137.07
Last 5	15:43:12	1500.02	20.36	5.77	49.54	1.87	29.08	6.68	136.14
Last 5	15:48:13	1800.31	20.09	5.78	48.77	1.24	29.10	6.65	135.28
Variance 0			-0.34	-0.01	-0.45			-0.03	-1.53
Variance 1			0.43	-0.01	-0.64			-0.10	-0.93
Variance 2			-0.27	0.00	-0.78			-0.03	-0.86

**Notes**

GWC-26 5/24/16 1550

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-24 12:43:53

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 418098  
Turbidity Make/Model Lamotte

**Pump Information:**

Pump Model/Type sample pro  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 65 ft

Pump placement from TOC 65 ft

**Well Information:**

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.05 ft  
Screen Length 10 ft  
Depth to Water 41.69 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.3718569 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	12:20:13	600.02	23.27	5.64	29.08	1.29	42.60	5.70	173.18
Last 5	12:25:13	900.70	23.73	5.62	28.86	0.93	42.62	5.44	173.78
Last 5	12:30:13	1200.70	24.17	5.60	28.79	0.89	42.64	5.28	174.18
Last 5	12:35:13	1500.70	21.33	5.62	28.34	0.77	42.68	5.30	174.91
Last 5	12:40:13	1800.70	21.65	5.58	28.66	1.05	42.74	5.19	170.89
Variance 0			0.44	-0.03	-0.07			-0.16	0.39
Variance 1			-2.84	0.02	-0.45			0.02	0.73
Variance 2			0.31	-0.03	0.32			-0.11	-4.02

**Notes**

GWC-27. 5/24/16 1245

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-20 09:33:45

**Project Information:**

Operator Name cg/Kj/bh/tm  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 378563  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 45 ft

Pump placement from TOC 45 ft

**Well Information:**

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 50.06 ft  
Screen Length 10 ft  
Depth to Water 26.20 ft

**Pumping Information:**

Final Pumping Rate 80 mL/min  
Total System Volume 0.1985932 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.4 in  
Total Volume Pumped 2.4 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Stabilization									
Last 5	09:06:38	300.15	17.62	6.41	66.31	9.54	27.08	6.07	132.81
Last 5	09:11:37	600.03	17.53	6.09	57.84	6.26	27.25	5.94	118.21
Last 5	09:16:37	900.02	17.55	6.07	55.78	5.39	27.30	5.76	102.06
Last 5	09:21:37	1200.02	17.58	6.04	53.82	4.01	27.35	5.75	98.02
Last 5	09:26:38	1501.02	17.56	6.05	53.60	3.73	27.40	5.67	93.22
Variance 0			0.02	-0.02	-2.07			-0.18	-16.15
Variance 1			0.03	-0.03	-1.96			-0.01	-4.03
Variance 2			-0.02	0.01	-0.22			-0.08	-4.80

**Notes**

Sampled by KJ on 5/20/16 at 0930. Drawdown near geopump max.

**Grab Samples**





### GROUNDWATER SAMPLING LOG SHEET

Client:	GPC	Project No.:	0372406	Sampling Date:	5/23/2016 to 5/25/2016
Site:	Plant Wansley	Location:	Gypsum LF	Sampler's Name:	TM/KJ/BH/CG
Well ID:	GWC-32	Pump Type/Model:	Geopump	Sample Collection Time:	
Total Depth (ft):	31.46	Tubing Material:	LDPE	Sample Purge Rate (mL/min) <sup>2,3</sup> :	
Depth to Water (ft):	25.45	Pump Intake Depth (ft):	26	Sample ID:	GWC-32
Well Diameter (in):	2	Start/Stop Purge Time:	0944 / 1539	Laboratory Analyses:	
Well Volume (gal) = 0.041d <sup>2</sup> h:		Purge Rate (mL/min) <sup>1</sup> :	100	Total Purge Volume (L):	
Well Volume (L) = gal * 3.785:		Purge Method:	Low-Flow Well Volume Other:	QA/QC Collected?	No
d = well diameter (inches) h = length of water column (feet)		Sampling Method <sup>3</sup> :	Pump Discharge Other:	QA/QC I.D.	NA
Well Type:	Flush Stick Up				
Well Lock:	Yes No				
Well Cap Condition:	Good Replace	<b>All sample containers requiring chemical preservation properly preserved prior to demob from well?<sup>8</sup> Yes</b>			
Well Tag Present:	Yes No				

Time	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0944	19.32	172.9	0.40	5.99	624.3	0.46	100	0.5	24.8	
0949	19.22	172.0	0.27	5.99	640.5		100	1.0		
0954	19.42	172.4	0.24	5.99	656		100	1.5		
0959	19.58	172.1	0.23	5.99	661.1		100	2.0		
1004	19.52	172.8	0.18	5.99	680.8		100	2.5		
1009	19.62	173.6	0.17	6.00	711.3	0.79	100	3.0	28.3	
										Well purged dry
<b>Stabilizing Criteria<sup>4, 5</sup></b>		<b>+/- 5%</b>	0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater) <sup>9</sup>	<b>+/- 0.1 SU</b>		<b>&lt; 5 NTUs</b>	<b>&gt; 100 mL &lt; 250 mL</b>	<b>&gt; 3L</b>	<b>&lt; 0.33 ft<sup>6, 7</sup></b>	

(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 within 3 consecutive readings. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft per 3 readings.  
(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)

**\*Note: Revised from digital field log recorded on 5/23/2017.**

Product Name: Low-Flow System

Date: 2016-05-23 12:42:11

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 18 ft

Pump placement from TOC 18 ft

**Well Information:**

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.32 ft  
Screen Length 10 ft  
Depth to Water 13.74 ft

**Pumping Information:**

Final Pumping Rate 500 mL/min  
Total System Volume 0.1334373 L  
Calculated Sample Rate 720 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 18 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:20:39	720.16	18.87	6.24	146.49	8.36	17.95	4.49	123.81
Last 5	12:32:39	1440.03	18.04	6.09	136.99	1.95	20.52	2.09	109.06
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.83	-0.15	-9.49			-2.40	-14.75
Variance 2			0.00	0.00	0.00			0.00	0.00

**Notes**

3 volume method per Pete R  
Pumped ~18L (3 volumes) well went dry will return to sample

**Grab Samples**

Product Name: Low-Flow System

Date: 2016-05-24 11:52:02

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 21 ft

Pump placement from TOC 21 ft

**Well Information:**

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.32 ft  
Screen Length 10 ft  
Depth to Water 19.81 ft

**Pumping Information:**

Final Pumping Rate 0 mL/min  
Total System Volume 0.1406769 L  
Calculated Sample Rate 30 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:43:18	30.10	36.85	6.51	132.78	--	--	4.83	183.30
Last 5	11:43:48	60.03	31.14	6.33	118.22	--	--	4.39	158.50
Last 5	11:44:18	90.02	28.82	6.29	121.55	--	--	4.31	136.48
Last 5	11:44:48	120.02	26.14	6.27	124.35	5.28	21.14	5.02	121.28
Last 5	11:45:18	150.03	24.45	6.26	127.56	5.43	21.20	5.65	111.27
Variance 0			-2.31	-0.05	3.34			-0.07	-22.01
Variance 1			-2.69	-0.02	2.79			0.71	-15.20
Variance 2			-1.69	-0.01	3.21			0.63	-10.01

**Notes**

Well was purged dry  
Well did not fully recharge, only able to sample metals

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-25 09:51:19

**Project Information:**

Operator Name KJ/BH/TM/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 35 ft

Pump placement from TOC ft

**Well Information:**

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.32 ft  
Screen Length 10 ft  
Depth to Water 8.69 ft

**Pumping Information:**

Final Pumping Rate 200 mL/min  
Total System Volume 0.1744614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 4 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:35:26	300.03	18.69	5.60	47.70	2.49	8.71	3.24	171.62
Last 5	09:40:26	600.02	18.46	5.59	47.22	2.09	8.71	3.28	156.95
Last 5	09:45:26	900.02	18.37	5.58	46.84	1.89	8.71	3.30	149.53
Last 5	09:50:26	1200.08	18.35	5.58	47.02	1.76	8.71	3.29	144.17
Last 5									
Variance 0			-0.22	-0.01	-0.48			0.04	-14.67
Variance 1			-0.09	-0.01	-0.38			0.02	-7.43
Variance 2			-0.03	-0.01	0.18			-0.00	-5.36

**Notes**

Resample for Ra

**Grab Samples**



Product Name: Low-Flow System

Date: 2016-05-23 13:46:42

**Project Information:**

Operator Name TM/KJ/BH/CG  
Company Name Golder  
Project Name Wansley CCR  
Site Name Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 416162  
Turbidity Make/Model Lamotte 2020

**Pump Information:**

Pump Model/Type geopump  
Tubing Type polyethylene  
Tubing Diameter .125 in  
Tubing Length 35 ft

Pump placement from TOC 35 ft

**Well Information:**

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.32 ft  
Screen Length 10 ft  
Depth to Water 8.68 ft

**Pumping Information:**

Final Pumping Rate 100 mL/min  
Total System Volume 0.1744614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3 L

**Low-Flow Sampling Stabilization Summary**

	Time	Elapsed	Temp C	pH	SpCond µS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.2	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:24:08	600.02	23.32	5.61	50.92	1.86	8.70	3.25	144.97
Last 5	13:29:08	900.02	22.78	5.61	49.20	1.36	8.70	3.29	139.15
Last 5	13:34:08	1200.02	22.61	5.61	50.04	1.56	8.70	3.28	135.61
Last 5	13:39:08	1500.65	22.90	5.60	49.72	1.39	8.70	3.28	135.29
Last 5	13:44:08	1800.64	23.09	5.60	49.37	0.98	8.70	3.27	134.11
Variance 0			-0.17	-0.00	0.84			-0.01	-3.54
Variance 1			0.29	-0.00	-0.31			0.00	-0.32
Variance 2			0.18	0.00	-0.35			-0.01	-1.18

**Notes**

**Grab Samples**

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-21 12:27:10

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWA - 1 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 39.82 FT <b>Total Depth:</b> 49.82 FT <b>Initial Depth to Water:</b> 23.61 FT	<b>Pump Type:</b> Peristaltic <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 44.82 FT <b>Estimated Total Volume Pumped:</b> <b>3500.001 ML</b> <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 2.22 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 417070
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-21 12:27:10	00:00	5.69 pH	31.63 °C	19.68 µS/cm	6.15 mg/L		213.1 mV	23.61 ft	100.00 ml/min
2016-07-21 12:32:10	05:00	5.52 pH	26.23 °C	20.26 µS/cm	6.25 mg/L	5.15 NTU	204.8 mV	24.44 ft	100.00 ml/min
2016-07-21 12:37:10	10:00	5.52 pH	25.88 °C	20.04 µS/cm	6.19 mg/L	4.18 NTU	208.5 mV	24.79 ft	100.00 ml/min
2016-07-21 12:42:10	15:00	5.50 pH	25.07 °C	20.29 µS/cm	6.25 mg/L	2.60 NTU	208.2 mV	25.14 ft	100.00 ml/min
2016-07-21 12:47:10	19:59	5.50 pH	25.09 °C	20.23 µS/cm	6.20 mg/L	4.85 NTU	206.3 mV	25.39 ft	100.00 ml/min
2016-07-21 12:52:10	25:00	5.50 pH	24.57 °C	19.96 µS/cm	6.19 mg/L	4.75 NTU	216.5 mV	25.62 ft	100.00 ml/min
2016-07-21 12:57:10	30:00	5.50 pH	25.55 °C	20.11 µS/cm	6.05 mg/L	4.63 NTU	208.0 mV	25.73 ft	100.00 ml/min
2016-07-21 13:02:10	35:00	5.50 pH	25.05 °C	19.85 µS/cm	6.04 mg/L	3.45 NTU	206.3 mV	25.83 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-26 09:42:04

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWA-2</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 49.29 FT</b> <b>Total Depth: 59.29 FT</b> <b>Initial Depth to Water: 43.75 FT</b>	<b>Pump Type: Samplepro</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 54 FT</b> <b>Estimated Total Volume Pumped:</b> <b>3149.999 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0.05 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 417070</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny 94

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 09:42:04	00:00	6.13 pH	29.08 °C	68.86 µS/cm	7.85 mg/L	4.54 NTU	181.1 mV	43.75 ft	100.00 ml/min
2016-07-26 09:47:04	04:59	5.83 pH	25.20 °C	62.90 µS/cm	7.93 mg/L	10.25 NTU	165.2 mV	43.78 ft	100.00 ml/min
2016-07-26 09:48:35	06:30	5.82 pH	24.74 °C	62.83 µS/cm	7.60 mg/L	10.64 NTU	168.1 mV	43.78 ft	100.00 ml/min
2016-07-26 09:53:35	11:31	5.81 pH	23.93 °C	62.65 µS/cm	7.44 mg/L	5.62 NTU	160.5 mV	43.90 ft	100.00 ml/min
2016-07-26 09:58:35	16:30	5.81 pH	23.52 °C	62.78 µS/cm	7.32 mg/L	4.84 NTU	159.9 mV	43.80 ft	100.00 ml/min
2016-07-26 10:03:35	21:30	5.81 pH	23.61 °C	62.70 µS/cm	7.24 mg/L	3.75 NTU	159.8 mV	43.80 ft	100.00 ml/min
2016-07-26 10:08:34	26:30	5.81 pH	23.61 °C	62.74 µS/cm	7.19 mg/L	4.46 NTU	157.3 mV	43.80 ft	100.00 ml/min
2016-07-26 10:13:34	31:29	5.81 pH	23.66 °C	62.58 µS/cm	7.08 mg/L	3.09 NTU	156.8 mV	43.80 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWA-2	Sampled at 1020 on 7/26/16 by KJ.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-21 10:01:02

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWA-4 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 28.28 FT <b>Total Depth:</b> 38.28 FT <b>Initial Depth to Water:</b> 24.87 FT	<b>Pump Type:</b> Peristaltic <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 33.28 FT <b>Estimated Total Volume Pumped:</b> 4000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 0.17 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 417070
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-21 10:01:02	00:00	6.78 pH	21.11 °C	254.77 µS/cm	6.03 mg/L		59.0 mV	24.87 ft	100.00 ml/min
2016-07-21 10:06:02	04:59	6.50 pH	20.95 °C	294.51 µS/cm	3.42 mg/L	12.90 NTU	-32.1 mV	25.00 ft	100.00 ml/min
2016-07-21 10:11:02	10:00	6.48 pH	21.11 °C	301.90 µS/cm	0.96 mg/L	11.10 NTU	-37.3 mV	25.00 ft	100.00 ml/min
2016-07-21 10:16:02	14:59	6.48 pH	21.30 °C	300.46 µS/cm	0.69 mg/L	10.02 NTU	-37.4 mV	25.01 ft	100.00 ml/min
2016-07-21 10:21:02	19:59	6.47 pH	21.46 °C	301.57 µS/cm	0.42 mg/L	7.14 NTU	-38.5 mV	25.02 ft	100.00 ml/min
2016-07-21 10:26:02	24:59	6.47 pH	21.66 °C	297.26 µS/cm	0.42 mg/L	6.14 NTU	-36.4 mV	25.04 ft	100.00 ml/min
2016-07-21 10:31:02	29:59	6.45 pH	21.51 °C	297.17 µS/cm	0.39 mg/L	4.91 NTU	-33.5 mV	25.04 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-25 12:55:05

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWA-28</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 36.16 FT</b>  <b>Total Depth: 46.16 FT</b>  <b>Initial Depth to Water: 25.38 FT</b></p>	<p><b>Pump Type: Samplepro</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length:</b>  <b>Pump Intake From TOC: 41 FT</b>  <b>Estimated Total Volume Pumped: 5000 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 3.3 FT</b></p>	<p><b>Instrument Used: SmartROLL MP</b>  <b>Serial Number: 339797</b></p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Weather Conditions:**

Sunny 94

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-25 12:55:05	00:00	9.50 pH	34.17 °C	93.16 µS/cm	5.92 mg/L	6.61 NTU	294.9 mV	25.38 ft	100.00 ml/min
2016-07-25 13:00:05	04:59	7.99 pH	26.46 °C	68.89 µS/cm	5.17 mg/L	2.54 NTU	283.6 mV	26.42 ft	100.00 ml/min
2016-07-25 13:05:05	09:59	7.30 pH	25.12 °C	67.61 µS/cm	5.06 mg/L	3.67 NTU	270.5 mV	26.76 ft	100.00 ml/min
2016-07-25 13:10:05	14:59	6.98 pH	24.54 °C	66.99 µS/cm	4.93 mg/L	4.05 NTU	262.9 mV	27.22 ft	100.00 ml/min
2016-07-25 13:15:05	19:59	6.70 pH	24.71 °C	67.07 µS/cm	4.94 mg/L	3.16 NTU	250.8 mV	27.59 ft	100.00 ml/min
2016-07-25 13:20:05	24:59	6.53 pH	24.47 °C	66.47 µS/cm	4.99 mg/L	3.65 NTU	233.2 mV	27.76 ft	100.00 ml/min
2016-07-25 13:25:05	30:00	6.40 pH	24.15 °C	65.99 µS/cm	5.18 mg/L	3.25 NTU	225.8 mV	27.94 ft	100.00 ml/min
2016-07-25 13:30:05	34:59	6.32 pH	23.79 °C	65.48 µS/cm	5.30 mg/L	3.08 NTU	212.3 mV	28.23 ft	100.00 ml/min
2016-07-25 13:35:05	39:59	6.25 pH	23.74 °C	65.95 µS/cm	5.38 mg/L	2.81 NTU	201.8 mV	28.45 ft	100.00 ml/min
2016-07-25 13:40:05	44:59	6.21 pH	24.69 °C	65.58 µS/cm	5.36 mg/L	3.44 NTU	201.1 mV	28.56 ft	100.00 ml/min

2016-07-25 13:45:05	49:59	6.18 pH	25.04 °C	64.80 µS/cm	5.39 mg/L	3.20 NTU	200.4 mV	28.68 ft	100.00 ml/min
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## Samples

Sample ID:	Description:
GWA-28	Sampled at 1350 by KJ at 1350.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-21 10:47:26

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWA-29</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 48.02 FT</b>  <b>Total Depth: 58.02 FT</b>  <b>Initial Depth to Water: 47.74 FT</b></p>	<p><b>Pump Type: SamplePro</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length:</b>  <b>Pump Intake From TOC: 53 FT</b>  <b>Estimated Total Volume Pumped: 8000 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 0 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 448902</b></p>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.33	
2016-07-21 10:47:26	00:00	6.08 pH	24.87 °C	109.16 µS/cm	5.16 mg/L	12.98 NTU	160.0 mV	47.74 ft	100.00 ml/min
2016-07-21 10:52:26	05:00	6.06 pH	24.42 °C	110.07 µS/cm	5.00 mg/L	11.51 NTU	142.1 mV	47.74 ft	100.00 ml/min
2016-07-21 10:57:26	10:00	6.06 pH	24.89 °C	110.18 µS/cm	4.91 mg/L	11.31 NTU	135.8 mV	47.74 ft	100.00 ml/min
2016-07-21 11:02:26	15:00	6.06 pH	25.40 °C	109.80 µS/cm	4.82 mg/L	8.97 NTU	136.9 mV	47.74 ft	100.00 ml/min
2016-07-21 11:07:26	20:00	6.06 pH	25.56 °C	109.28 µS/cm	4.78 mg/L	7.34 NTU	133.9 mV	47.74 ft	100.00 ml/min
2016-07-21 11:12:26	25:00	6.06 pH	26.19 °C	109.11 µS/cm	4.72 mg/L	7.14 NTU	131.6 mV	47.74 ft	100.00 ml/min
2016-07-21 11:17:26	30:00	6.06 pH	26.13 °C	108.93 µS/cm	4.74 mg/L	6.79 NTU	132.4 mV	47.74 ft	100.00 ml/min
2016-07-21 11:22:26	35:00	6.06 pH	26.97 °C	108.82 µS/cm	4.72 mg/L	6.45 NTU	130.4 mV	47.74 ft	100.00 ml/min
2016-07-21 11:27:26	40:00	6.06 pH	26.81 °C	107.25 µS/cm	4.73 mg/L	6.34 NTU	130.0 mV	47.74 ft	100.00 ml/min
2016-07-21 11:32:26	45:00	6.05 pH	27.17 °C	106.83 µS/cm	4.72 mg/L	6.19 NTU	129.9 mV	47.74 ft	100.00 ml/min
2016-07-21 11:37:26	50:00	6.05 pH	28.05 °C	107.41 µS/cm	4.65 mg/L	5.74 NTU	135.2 mV	47.74 ft	100.00 ml/min
2016-07-21 11:42:26	55:00	6.06 pH	28.45 °C	106.27 µS/cm	4.65 mg/L	5.68 NTU	128.5 mV	47.74 ft	100.00 ml/min

2016-07-21 11:47:26	01:00:00	6.05 pH	27.90 °C	105.69 µS/cm	4.72 mg/L	5.30 NTU	130.8 mV	47.74 ft	100.00 ml/min
2016-07-21 11:52:26	01:05:00	6.05 pH	28.50 °C	106.17 µS/cm	4.73 mg/L	5.27 NTU	128.6 mV	47.74 ft	100.00 ml/min
2016-07-21 11:57:26	01:10:00	6.05 pH	27.97 °C	104.74 µS/cm	4.74 mg/L	5.09 NTU	126.9 mV	47.74 ft	100.00 ml/min
2016-07-21 12:02:26	01:15:00	6.05 pH	27.16 °C	103.65 µS/cm	4.79 mg/L	4.96 NTU	126.1 mV	47.74 ft	100.00 ml/min

## Samples

Sample ID:	Description:
GWA-29	

# Low-Flow Test Report:

Test Date / Time: 2016-07-21 13:56:25

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-5</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 27.19 FT</b> <b>Total Depth: 37.19 FT</b> <b>Initial Depth to Water: 21.01 FT</b>	<b>Pump Type:</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> <b>Estimated Total Volume Pumped: 4282.5 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 150 ML_PER_MIN</b> <b>Final Draw Down: 1.62 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 354698</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-21 13:56:25	00:00	6.89 pH	35.00 °C	287.28 µS/cm	2.24 mg/L	2.36 NTU	571.0 mV	21.01 ft	150.00 ml/min
2016-07-21 14:01:25	05:00	6.99 pH	23.99 °C	322.41 µS/cm	0.74 mg/L	7.21 NTU	1,041.0 mV	21.88 ft	150.00 ml/min
2016-07-21 14:04:58	08:33	6.76 pH	23.71 °C	300.04 µS/cm	1.00 mg/L	6.44 NTU	1,054.1 mV	22.25 ft	150.00 ml/min
2016-07-21 14:09:58	13:32	6.51 pH	22.66 °C	272.75 µS/cm	1.11 mg/L	4.66 NTU	1,074.5 mV	22.36 ft	150.00 ml/min
2016-07-21 14:14:58	18:32	6.45 pH	21.89 °C	257.73 µS/cm	1.04 mg/L	4.45 NTU	1,074.4 mV	22.54 ft	150.00 ml/min
2016-07-21 14:19:58	23:33	6.43 pH	21.58 °C	254.00 µS/cm	0.90 mg/L	4.34 NTU	1,069.9 mV	22.63 ft	150.00 ml/min
2016-07-21 14:24:58	28:32	6.42 pH	21.98 °C	258.37 µS/cm	0.90 mg/L	4.25 NTU	1,062.0 mV	22.63 ft	150.00 ml/min

## Samples

Sample ID:	Description:
GWC-5	



# Low-Flow Test Report:

**Test Date / Time:** 2016-07-22 09:48:17

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-7 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 16.32 FT <b>Total Depth:</b> 26.32 FT <b>Initial Depth to Water:</b> 8.45 FT	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 21 FT <b>Estimated Total Volume Pumped:</b> <b>9995.004 ML</b> <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 150 ML_PER_MIN <b>Final Draw Down:</b> 4.05 FT	<b>Instrument Used:</b> SmartROLL MP <b>Serial Number:</b> 448902
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-22 09:48:17	00:00	6.80 pH	26.96 °C	773.11 µS/cm	2.78 mg/L	0.43 NTU	179.0 mV	8.45 ft	300.00 ml/min
2016-07-22 09:53:16	04:59	6.41 pH	20.59 °C	786.15 µS/cm	0.31 mg/L	0.33 NTU	17.1 mV	11.18 ft	200.00 ml/min
2016-07-22 09:58:16	09:59	6.42 pH	21.55 °C	823.76 µS/cm	0.51 mg/L	0.27 NTU	24.6 mV	11.48 ft	200.00 ml/min
2016-07-22 10:03:16	14:59	6.41 pH	21.74 °C	818.05 µS/cm	0.58 mg/L	1.24 NTU	15.7 mV	11.80 ft	200.00 ml/min
2016-07-22 10:08:16	19:59	6.43 pH	20.97 °C	803.36 µS/cm	0.47 mg/L	1.21 NTU	18.5 mV	11.75 ft	200.00 ml/min
2016-07-22 10:13:16	24:59	6.41 pH	22.35 °C	839.66 µS/cm	0.75 mg/L	2.02 NTU	15.7 mV	11.64 ft	200.00 ml/min
2016-07-22 10:18:16	29:59	6.45 pH	24.38 °C	777.68 µS/cm	0.70 mg/L	3.10 NTU	31.2 mV	11.68 ft	200.00 ml/min
2016-07-22 10:23:16	34:58	6.42 pH	21.58 °C	822.41 µS/cm	0.46 mg/L	3.22 NTU	27.4 mV	11.93 ft	200.00 ml/min
2016-07-22 10:28:16	39:59	6.43 pH	22.71 °C	812.42 µS/cm	0.38 mg/L	3.16 NTU	31.5 mV	12.21 ft	150.00 ml/min
2016-07-22 10:33:16	44:58	6.43 pH	22.31 °C	798.20 µS/cm	0.30 mg/L	4.54 NTU	21.4 mV	12.40 ft	150.00 ml/min

2016-07-22 10:38:16	49:59	6.44 pH	22.21 °C	786.53 µS/cm	0.30 mg/L	4.86 NTU	23.2 mV	12.50 ft	150.00 ml/min
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## Samples

Sample ID:	Description:
GWC-7	Sampled by KJ at 1045 on 7/22/16





# Low-Flow Test Report:

**Test Date / Time:** 2016-07-25 13:08:43

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-9 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 9.23 FT <b>Total Depth:</b> 19.23 FT <b>Initial Depth to Water:</b>	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 15 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 120 ML_PER_MIN <b>Final Draw Down:</b> 0.45 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

95

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-25 13:08:43	00:00	5.88 pH	27.58 °C	387.43 µS/cm	0.25 mg/L	0.64 NTU	231.0 mV	8.30 ft	120.00 ml/min
2016-07-25 13:13:43	04:59	5.89 pH	26.07 °C	397.14 µS/cm	0.21 mg/L	0.32 NTU	328.4 mV	8.36 ft	120.00 ml/min
2016-07-25 13:18:43	10:00	5.90 pH	25.99 °C	396.31 µS/cm	0.19 mg/L	0.26 NTU	374.8 mV	8.40 ft	120.00 ml/min
2016-07-25 13:23:43	15:00	5.89 pH	26.79 °C	394.19 µS/cm	0.18 mg/L	1.85 NTU	392.0 mV	8.45 ft	120.00 ml/min
2016-07-25 13:28:43	20:00	5.89 pH	25.76 °C	389.76 µS/cm	0.18 mg/L	0.78 NTU	446.9 mV	8.50 ft	120.00 ml/min
2016-07-25 13:33:43	24:59	5.88 pH	26.27 °C	391.26 µS/cm	0.17 mg/L	0.58 NTU	458.5 mV	8.55 ft	120.00 ml/min
2016-07-25 13:38:43	29:59	5.88 pH	27.18 °C	387.98 µS/cm	0.18 mg/L	0.65 NTU	429.5 mV	8.55 ft	120.00 ml/min

## Samples

Sample ID:	Description:
GWC-9	0.65NTU FD-4(LF)

Created using VuSitu from In-Situ, Inc.



# Low-Flow Test Report:

**Test Date / Time:** 2016-07-25 15:05:02

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-11 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 8.19 FT <b>Total Depth:</b> 18.19 FT <b>Initial Depth to Water:</b>	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 14 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 0 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

95

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-25 15:05:02	00:00	6.30 pH	33.04 °C	474.34 µS/cm	0.96 mg/L	0.85 NTU	68.1 mV	7.54 ft	100.00 ml/min
2016-07-25 15:10:01	04:59	6.29 pH	27.95 °C	504.54 µS/cm	0.36 mg/L	0.68 NTU	13.4 mV	7.58 ft	100.00 ml/min
2016-07-25 15:15:01	09:59	6.29 pH	26.95 °C	507.84 µS/cm	0.26 mg/L	0.45 NTU	-7.7 mV	7.58 ft	100.00 ml/min
2016-07-25 15:20:01	14:59	6.29 pH	26.75 °C	504.27 µS/cm	0.21 mg/L	0.83 NTU	-19.4 mV	7.58 ft	100.00 ml/min
2016-07-25 15:25:01	19:58	6.29 pH	27.27 °C	503.60 µS/cm	0.19 mg/L	0.92 NTU	-28.2 mV	7.58 ft	100.00 ml/min
2016-07-25 15:30:01	24:59	6.29 pH	27.74 °C	502.86 µS/cm	0.17 mg/L	0.91 NTU	-34.0 mV	7.58 ft	100.00 ml/min
2016-07-25 15:35:01	29:59	6.29 pH	27.53 °C	506.30 µS/cm	0.16 mg/L	1.09 NTU	-37.5 mV	7.58 ft	100.00 ml/min

## Samples

Sample ID:	Description:
GWC-11	1.09NTU

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 2016-07-22 09:25:55

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 12</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 31.18 FT</b> <b>Total Depth: 41.18 FT</b> <b>Initial Depth to Water: 26.78 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 36.18 FT</b> <b>Estimated Total Volume Pumped: 3200 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 2.15 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 417070</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-22 09:25:55	00:00	7.39 pH	23.07 °C	272.17 µS/cm	2.08 mg/L		-88.1 mV	26.78 ft	100.00 ml/min
2016-07-22 09:30:55	05:00	7.49 pH	21.11 °C	273.95 µS/cm	0.58 mg/L	3.73 NTU	-133.2 mV	27.81 ft	100.00 ml/min
2016-07-22 09:35:55	10:00	7.53 pH	20.99 °C	275.84 µS/cm	0.46 mg/L	3.42 NTU	-140.5 mV	28.29 ft	100.00 ml/min
2016-07-22 09:40:55	15:00	7.55 pH	21.26 °C	274.92 µS/cm	0.42 mg/L	3.65 NTU	-140.8 mV	28.50 ft	100.00 ml/min
2016-07-22 09:45:55	19:59	7.54 pH	21.24 °C	274.71 µS/cm	0.59 mg/L	3.47 NTU	-131.7 mV	28.71 ft	100.00 ml/min
2016-07-22 09:50:55	24:59	7.58 pH	21.04 °C	272.11 µS/cm	0.92 mg/L	3.14 NTU	-110.1 mV	28.85 ft	100.00 ml/min
2016-07-22 09:55:55	29:59	7.57 pH	21.07 °C	273.81 µS/cm	0.91 mg/L	2.86 NTU	-100.3 mV	28.93 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-26 10:07:20

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC - 13 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 79.34 FT <b>Total Depth:</b> 89.34 FT <b>Initial Depth to Water:</b>	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 84.37 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 0.1 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

90

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 10:07:20	00:00	7.61 pH	25.72 °C	58.46 µS/cm	4.38 mg/L	5.24 NTU	389.0 mV	6.70 ft	100.00 ml/min
2016-07-26 10:12:20	04:59	7.00 pH	23.27 °C	62.32 µS/cm	4.34 mg/L	2.57 NTU	460.5 mV	6.70 ft	100.00 ml/min
2016-07-26 10:17:20	10:00	6.91 pH	23.50 °C	61.22 µS/cm	4.20 mg/L	1.56 NTU	440.9 mV	6.70 ft	100.00 ml/min
2016-07-26 10:22:20	15:00	6.88 pH	23.41 °C	61.02 µS/cm	4.14 mg/L	1.46 NTU	430.5 mV	6.70 ft	100.00 ml/min
2016-07-26 10:27:20	19:59	6.87 pH	23.46 °C	61.13 µS/cm	4.24 mg/L	2.52 NTU	423.6 mV	6.70 ft	100.00 ml/min
2016-07-26 10:32:20	24:59	6.86 pH	23.37 °C	61.73 µS/cm	4.31 mg/L	1.29 NTU	417.8 mV	6.70 ft	100.00 ml/min
2016-07-26 10:37:20	29:59	6.86 pH	23.33 °C	61.42 µS/cm	4.42 mg/L	0.99 NTU	400.4 mV	6.72 ft	100.00 ml/min

## Samples

Sample ID:	Description:
GWC-13	

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-26 12:07:30

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC - 14 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 13.67 FT <b>Total Depth:</b> 23.67 FT <b>Initial Depth to Water:</b>	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 18 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 0 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 12:07:30	00:00	6.06 pH	31.22 °C	472.93 µS/cm	2.43 mg/L	2.37 NTU	230.3 mV	9.75 ft	100.00 ml/min
2016-07-26 12:12:29	04:59	6.06 pH	25.31 °C	524.14 µS/cm	0.42 mg/L	2.46 NTU	115.4 mV	9.75 ft	100.00 ml/min
2016-07-26 12:17:29	09:59	6.06 pH	24.96 °C	533.06 µS/cm	0.22 mg/L	3.75 NTU	84.0 mV	9.75 ft	100.00 ml/min
2016-07-26 12:22:29	14:59	6.06 pH	25.00 °C	542.92 µS/cm	0.19 mg/L	1.89 NTU	72.1 mV	9.75 ft	100.00 ml/min
2016-07-26 12:27:29	19:59	6.07 pH	24.53 °C	543.89 µS/cm	0.18 mg/L	1.78 NTU	58.7 mV	9.75 ft	100.00 ml/min
2016-07-26 12:32:29	24:59	6.07 pH	24.59 °C	548.81 µS/cm	0.16 mg/L	1.24 NTU	47.2 mV	9.75 ft	100.00 ml/min
2016-07-26 12:37:29	29:59	6.07 pH	25.10 °C	551.44 µS/cm	0.15 mg/L	1.32 NTU	40.0 mV	9.75 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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GWC - 14	Sampled at 1240 1.32NTU
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# Low-Flow Test Report:

Test Date / Time: 2016-07-26 13:35:29

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 15</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 40.6 FT</b> <b>Total Depth: 50.6 FT</b> <b>Initial Depth to Water:</b>	<b>Pump Type: Geopump</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 45 FT</b> <b>Estimated Total Volume Pumped:</b> <b>3000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 354698</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 13:35:29	00:00	6.80 pH	27.42 °C	91.76 µS/cm	3.73 mg/L	2.63 NTU	317.7 mV	7.79 ft	100.00 ml/min
2016-07-26 13:40:29	05:00	6.73 pH	27.51 °C	96.83 µS/cm	3.49 mg/L	3.81 NTU	324.1 mV	7.79 ft	100.00 ml/min
2016-07-26 13:45:29	10:00	6.72 pH	26.36 °C	96.22 µS/cm	3.41 mg/L	1.32 NTU	325.4 mV	7.79 ft	100.00 ml/min
2016-07-26 13:50:29	15:00	6.72 pH	26.65 °C	96.74 µS/cm	3.29 mg/L	1.60 NTU	326.5 mV	7.79 ft	100.00 ml/min
2016-07-26 13:55:29	20:00	6.72 pH	26.72 °C	96.52 µS/cm	3.21 mg/L	2.03 NTU	332.4 mV	7.79 ft	100.00 ml/min
2016-07-26 14:00:29	25:00	6.72 pH	26.11 °C	96.25 µS/cm	3.18 mg/L	1.02 NTU	335.2 mV	7.79 ft	100.00 ml/min
2016-07-26 14:05:29	30:00	6.72 pH	26.04 °C	96.37 µS/cm	3.17 mg/L	2.45 NTU	335.5 mV	7.79 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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GWC - 15	Sampled at 1410 2.45NTU
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-27 09:43:51

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC - 16 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 17.22 FT <b>Total Depth:</b> 27.22 FT <b>Initial Depth to Water:</b>	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 22 FT <b>Estimated Total Volume Pumped:</b> 3200 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 160 ML_PER_MIN <b>Final Draw Down:</b> 0 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

90

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-27 09:43:51	00:00	6.64 pH	23.14 °C	108.83 µS/cm	4.34 mg/L	4.55 NTU	420.9 mV	12.68 ft	160.00 ml/min
2016-07-27 09:48:51	05:00	6.34 pH	22.31 °C	105.72 µS/cm	3.94 mg/L	2.85 NTU	339.3 mV	12.69 ft	160.00 ml/min
2016-07-27 09:53:51	09:59	6.32 pH	21.61 °C	102.38 µS/cm	3.90 mg/L	1.82 NTU	332.7 mV	12.69 ft	160.00 ml/min
2016-07-27 09:58:51	14:59	6.30 pH	21.40 °C	101.20 µS/cm	3.85 mg/L	1.14 NTU	331.3 mV	12.69 ft	160.00 ml/min
2016-07-27 10:03:51	20:00	6.30 pH	21.43 °C	99.99 µS/cm	3.87 mg/L	0.52 NTU	330.4 mV	12.69 ft	160.00 ml/min

## Samples

Sample ID:	Description:
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GWC - 16

Sampled at 1005  
0.52NTU



# Low-Flow Test Report:

**Test Date / Time:** 2016-07-27 11:16:49

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-17 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 43.71 FT <b>Total Depth:</b> 53.71 FT <b>Initial Depth to Water:</b>	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 48 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 0.68 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

90

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-27 11:16:49	00:00	6.62 pH	28.36 °C	109.91 µS/cm	3.80 mg/L	10.73 NTU	510.0 mV	23.86 ft	100.00 ml/min
2016-07-27 11:21:49	05:00	6.35 pH	26.16 °C	114.80 µS/cm	3.05 mg/L	7.77 NTU	371.7 mV	24.15 ft	100.00 ml/min
2016-07-27 11:26:49	10:00	6.34 pH	26.09 °C	115.82 µS/cm	2.97 mg/L	4.24 NTU	355.8 mV	24.29 ft	100.00 ml/min
2016-07-27 11:31:49	15:00	6.33 pH	26.47 °C	115.02 µS/cm	2.92 mg/L	5.71 NTU	347.1 mV	24.38 ft	100.00 ml/min
2016-07-27 11:36:49	19:59	6.33 pH	26.84 °C	114.47 µS/cm	2.86 mg/L	4.84 NTU	342.8 mV	24.45 ft	100.00 ml/min
2016-07-27 11:41:49	25:00	6.33 pH	26.72 °C	113.78 µS/cm	2.80 mg/L	3.61 NTU	339.4 mV	24.50 ft	100.00 ml/min
2016-07-27 11:46:49	29:59	6.32 pH	27.14 °C	114.02 µS/cm	2.77 mg/L	3.63 NTU	337.7 mV	24.54 ft	100.00 ml/min

## Samples

Sample ID:	Description:
GWC-17	Sampled at 1150 3.63NTU

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 2016-07-25 12:10:02

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 18</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 20.04 FT</b> <b>Total Depth: 30.04 FT</b> <b>Initial Depth to Water: 19.49 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 25.04 FT</b> <b>Estimated Total Volume Pumped: 4000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 120 ML_PER_MIN</b> <b>Final Draw Down: 0.06 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 448902</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-25 12:10:02	00:00	6.08 pH	22.89 °C	83.80 µS/cm	1.73 mg/L		225.9 mV	19.49 ft	120.00 ml/min
2016-07-25 12:15:02	05:00	6.08 pH	22.64 °C	83.85 µS/cm	1.63 mg/L	0.66 NTU	123.4 mV	19.53 ft	120.00 ml/min
2016-07-25 12:20:02	10:00	6.07 pH	22.00 °C	83.30 µS/cm	1.61 mg/L	2.18 NTU	112.0 mV	19.54 ft	120.00 ml/min
2016-07-25 12:25:02	15:00	6.07 pH	21.99 °C	82.78 µS/cm	1.56 mg/L	2.04 NTU	113.7 mV	19.54 ft	120.00 ml/min
2016-07-25 12:30:02	20:00	6.07 pH	21.97 °C	83.31 µS/cm	1.56 mg/L	1.47 NTU	105.6 mV	19.54 ft	120.00 ml/min
2016-07-25 12:35:02	25:00	6.07 pH	22.14 °C	82.97 µS/cm	1.54 mg/L	1.24 NTU	103.0 mV	19.55 ft	120.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2016-07-25 13:37:00

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 19</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 27.96 FT</b> <b>Total Depth: 37.96 FT</b> <b>Initial Depth to Water: 15.1 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 32.96 FT</b> <b>Estimated Total Volume Pumped: 3000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 1.06 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 448902</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-25 13:37:00	00:00	6.07 pH	24.70 °C	71.26 µS/cm	1.10 mg/L		173.0 mV	15.10 ft	100.00 ml/min
2016-07-25 13:42:00	05:00	6.08 pH	22.46 °C	73.36 µS/cm	0.73 mg/L	4.49 NTU	108.0 mV	15.76 ft	100.00 ml/min
2016-07-25 13:47:00	10:00	6.08 pH	21.82 °C	72.85 µS/cm	0.65 mg/L	3.03 NTU	94.8 mV	15.94 ft	100.00 ml/min
2016-07-25 13:52:00	15:00	6.08 pH	21.24 °C	72.92 µS/cm	0.57 mg/L	2.86 NTU	89.4 mV	16.03 ft	100.00 ml/min
2016-07-25 13:57:00	20:00	6.06 pH	21.20 °C	73.28 µS/cm	0.52 mg/L	2.17 NTU	88.2 mV	16.10 ft	100.00 ml/min
2016-07-25 14:02:00	25:00	6.06 pH	21.24 °C	72.91 µS/cm	0.51 mg/L	2.22 NTU	87.8 mV	16.14 ft	100.00 ml/min
2016-07-25 14:07:00	30:00	6.06 pH	20.94 °C	72.61 µS/cm	0.50 mg/L	2.48 NTU	84.0 mV	16.16 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2016-07-25 15:08:54

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 20</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 52.68 FT</b> <b>Total Depth: 62.68 FT</b> <b>Initial Depth to Water: 10.39 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 57.68 FT</b> <b>Estimated Total Volume Pumped: 3000.001 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 150 ML_PER_MIN</b> <b>Final Draw Down: 0.12 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 448902</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-25 15:08:54	00:00	6.38 pH	27.48 °C	107.36 µS/cm	2.08 mg/L		188.8 mV	10.39 ft	150.00 ml/min
2016-07-25 15:13:54	05:00	6.33 pH	24.60 °C	110.56 µS/cm	1.18 mg/L	2.87 NTU	98.8 mV	10.49 ft	150.00 ml/min
2016-07-25 15:18:54	10:00	6.32 pH	24.36 °C	110.90 µS/cm	1.10 mg/L	2.66 NTU	86.4 mV	10.51 ft	150.00 ml/min
2016-07-25 15:23:54	15:00	6.32 pH	24.78 °C	111.31 µS/cm	1.06 mg/L	2.74 NTU	84.4 mV	10.51 ft	150.00 ml/min
2016-07-25 15:28:54	20:00	6.31 pH	25.71 °C	110.29 µS/cm	1.03 mg/L	2.45 NTU	82.2 mV	10.51 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2016-07-26 09:20:05

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 21</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 28.58 FT</b> <b>Total Depth: 38.58 FT</b> <b>Initial Depth to Water: 19.29 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 33.58 FT</b> <b>Estimated Total Volume Pumped: 3500 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 1.99 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 448902</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 09:20:05	00:00	5.65 pH	20.27 °C	44.81 µS/cm	0.81 mg/L		238.4 mV	19.29 ft	100.00 ml/min
2016-07-26 09:25:05	05:00	5.65 pH	19.68 °C	45.57 µS/cm	0.70 mg/L	0.82 NTU	143.2 mV	20.62 ft	100.00 ml/min
2016-07-26 09:30:05	09:59	5.65 pH	19.86 °C	45.54 µS/cm	0.66 mg/L	0.50 NTU	125.2 mV	20.93 ft	100.00 ml/min
2016-07-26 09:35:04	14:59	5.65 pH	20.13 °C	45.46 µS/cm	0.67 mg/L	0.38 NTU	118.9 mV	21.04 ft	100.00 ml/min
2016-07-26 09:40:04	19:58	5.64 pH	20.08 °C	45.42 µS/cm	0.60 mg/L	0.40 NTU	113.5 mV	21.12 ft	100.00 ml/min
2016-07-26 09:45:04	24:59	5.65 pH	20.18 °C	45.13 µS/cm	0.60 mg/L	0.40 NTU	111.2 mV	21.20 ft	100.00 ml/min
2016-07-26 09:50:04	29:59	5.64 pH	20.04 °C	45.46 µS/cm	0.57 mg/L	0.70 NTU	108.6 mV	21.28 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-26 10:52:58

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC - 22  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 68.74 FT  <b>Total Depth:</b> 78.74 FT  <b>Initial Depth to Water:</b> 26.77 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 73.74 FT  <b>Estimated Total Volume Pumped:</b>  <b>3000 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 0.48 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 448902</p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 10:52:58	00:00	6.67 pH	23.71 °C	119.79 µS/cm	3.94 mg/L		185.4 mV	26.77 ft	100.00 ml/min
2016-07-26 10:57:58	05:00	6.66 pH	23.52 °C	122.11 µS/cm	3.70 mg/L	0.71 NTU	88.2 mV	27.13 ft	100.00 ml/min
2016-07-26 11:02:58	10:00	6.66 pH	23.23 °C	119.97 µS/cm	3.57 mg/L	0.77 NTU	84.5 mV	27.18 ft	100.00 ml/min
2016-07-26 11:07:58	15:00	6.63 pH	23.12 °C	120.83 µS/cm	3.51 mg/L	0.57 NTU	83.6 mV	27.24 ft	100.00 ml/min
2016-07-26 11:12:58	20:00	6.63 pH	23.21 °C	120.40 µS/cm	3.46 mg/L	0.17 NTU	82.7 mV	27.24 ft	100.00 ml/min
2016-07-26 11:17:58	25:00	6.63 pH	23.45 °C	120.23 µS/cm	3.41 mg/L	0.74 NTU	83.5 mV	27.25 ft	100.00 ml/min
2016-07-26 11:22:58	29:59	6.62 pH	23.43 °C	120.24 µS/cm	3.40 mg/L	0.98 NTU	83.6 mV	27.25 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-27 10:20:19

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-23 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 58.22 FT <b>Total Depth:</b> 68.22 FT <b>Initial Depth to Water:</b> 36.99 FT	<b>Pump Type:</b> SamplePro <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 63 FT <b>Estimated Total Volume Pumped:</b> 999.999 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 0.05 FT	<b>Instrument Used:</b> SmartROLL MP <b>Serial Number:</b> 416162
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-06-15 03:35:19	00:00	6.17 pH	19.89 °C	47.77 µS/cm	5.84 mg/L	6.09 NTU	146.6 mV	36.99 ft	100.00 ml/min
2016-06-15 03:40:19	04:59	6.06 pH	19.50 °C	48.06 µS/cm	5.59 mg/L	3.70 NTU	133.1 mV	37.94 ft	100.00 ml/min
2016-06-15 03:45:19	09:59	6.05 pH	19.52 °C	48.49 µS/cm	5.46 mg/L	1.70 NTU	119.9 mV	37.94 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2016-07-27 10:20:17

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-23</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 58.22 FT</b> <b>Total Depth: 68.22 FT</b> <b>Initial Depth to Water: 36.99 FT</b>	<b>Pump Type: Samplepro</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 63 FT</b> <b>Estimated Total Volume Pumped: 2000.001 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0.41 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 416162</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.33	
2016-06-15 03:49:17	00:00	6.05 pH	19.63 °C	47.95 µS/cm	5.39 mg/L	6.08 NTU	155.4 mV	36.99 ft	100.00 ml/min
2016-06-15 03:54:17	05:00	6.05 pH	19.87 °C	47.25 µS/cm	5.32 mg/L	3.70 NTU	113.8 mV	37.40 ft	100.00 ml/min
2016-06-15 03:59:17	10:00	6.04 pH	19.96 °C	46.58 µS/cm	5.27 mg/L	1.70 NTU	112.4 mV	37.40 ft	100.00 ml/min
2016-06-15 04:04:17	15:00	6.04 pH	19.76 °C	46.37 µS/cm	5.26 mg/L	0.94 NTU	110.3 mV	37.40 ft	100.00 ml/min
2016-06-15 04:09:17	20:00	6.04 pH	19.77 °C	46.59 µS/cm	5.24 mg/L	1.23 NTU	108.0 mV	37.40 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-07-27 09:48:45

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-25 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 48.95 FT <b>Total Depth:</b> 58.95 FT <b>Initial Depth to Water:</b> 49.22 FT	<b>Pump Type:</b> <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 53 FT <b>Estimated Total Volume Pumped:</b> 3500 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 1.36 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 417070
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Partly cloudy 94

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-27 09:48:45	00:00	6.42 pH	27.75 °C	100.32 µS/cm	8.07 mg/L	2.59 NTU	196.9 mV	49.77 ft	100.00 ml/min
2016-07-27 09:53:45	05:00	6.11 pH	23.16 °C	98.21 µS/cm	7.88 mg/L	2.70 NTU	156.9 mV	49.98 ft	100.00 ml/min
2016-07-27 09:58:45	10:00	6.10 pH	22.03 °C	98.67 µS/cm	7.74 mg/L	3.00 NTU	151.6 mV	50.03 ft	100.00 ml/min
2016-07-27 10:03:45	15:00	6.08 pH	21.73 °C	98.36 µS/cm	7.57 mg/L	3.47 NTU	149.7 mV	50.08 ft	100.00 ml/min
2016-07-27 10:08:45	20:00	6.08 pH	20.88 °C	97.70 µS/cm	7.49 mg/L	2.20 NTU	147.9 mV	50.20 ft	100.00 ml/min
2016-07-27 10:13:45	25:00	6.05 pH	20.79 °C	96.52 µS/cm	7.50 mg/L	2.52 NTU	147.7 mV	50.35 ft	100.00 ml/min
2016-07-27 10:18:45	30:00	5.98 pH	21.01 °C	96.46 µS/cm	7.38 mg/L	2.02 NTU	151.1 mV	50.46 ft	100.00 ml/min
2016-07-27 10:23:45	34:59	5.97 pH	21.48 °C	96.57 µS/cm	7.29 mg/L	1.91 NTU	157.2 mV	50.58 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWC-25	Sampled at 1030 on 7/27/16 by KJ.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-26 13:22:52

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-26 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 50.89 FT <b>Total Depth:</b> 60.89 FT <b>Initial Depth to Water:</b> 28.97 FT	<b>Pump Type:</b> Samplepro <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 55 FT <b>Estimated Total Volume Pumped:</b> 3460 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 1.46 FT	<b>Instrument Used:</b> SmartROLL MP <b>Serial Number:</b> 417070
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny 96

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 13:22:52	00:00	6.10 pH	35.42 °C	53.57 µS/cm	6.13 mg/L		337.5 mV	30.01 ft	100.00 ml/min
2016-07-26 13:27:52	05:00	5.81 pH	25.69 °C	52.49 µS/cm	6.39 mg/L	2.25 NTU	220.9 mV	30.21 ft	100.00 ml/min
2016-07-26 13:32:52	10:00	5.78 pH	24.46 °C	52.34 µS/cm	6.74 mg/L	6.46 NTU	213.0 mV	30.30 ft	100.00 ml/min
2016-07-26 13:37:52	15:00	5.76 pH	24.05 °C	52.13 µS/cm	6.69 mg/L	7.61 NTU	199.5 mV	30.30 ft	100.00 ml/min
2016-07-26 13:42:52	20:00	5.76 pH	23.95 °C	52.21 µS/cm	6.71 mg/L	7.13 NTU	194.3 mV	30.39 ft	100.00 ml/min
2016-07-26 13:47:52	25:00	5.75 pH	23.77 °C	52.27 µS/cm	6.69 mg/L	4.63 NTU	189.8 mV	30.43 ft	100.00 ml/min
2016-07-26 13:52:52	30:00	5.74 pH	23.52 °C	51.94 µS/cm	6.65 mg/L	5.29 NTU	188.4 mV	30.43 ft	100.00 ml/min
2016-07-26 13:57:28	34:36	6.04 pH	24.26 °C	0.00 µS/cm	7.57 mg/L	4.80 NTU	99.2 mV	30.43 ft	100.00 ml/min



**Samples**

Sample ID:	Description:
GWC-26	Sampled at 1355 on 7/26/16 by KJ.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-26 11:33:10

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-27 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 61.3 FT <b>Total Depth:</b> 71.3 FT <b>Initial Depth to Water:</b> 44.33 FT	<b>Pump Type:</b> PVC <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 66 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 1.05 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 417070
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny 96

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-26 11:33:10	00:00	5.82 pH	30.76 °C	32.53 µS/cm	5.24 mg/L	8.78 NTU	250.2 mV	44.78 ft	100.00 ml/min
2016-07-26 11:38:10	04:59	5.64 pH	24.78 °C	37.13 µS/cm	4.85 mg/L	12.52 NTU	173.4 mV	44.96 ft	100.00 ml/min
2016-07-26 11:43:10	09:59	5.62 pH	23.31 °C	38.14 µS/cm	4.46 mg/L	6.95 NTU	168.1 mV	45.17 ft	100.00 ml/min
2016-07-26 11:48:10	14:59	5.63 pH	23.02 °C	38.43 µS/cm	4.31 mg/L	5.15 NTU	171.2 mV	45.26 ft	100.00 ml/min
2016-07-26 11:53:10	19:59	5.62 pH	22.89 °C	38.26 µS/cm	4.26 mg/L	4.84 NTU	172.2 mV	45.32 ft	100.00 ml/min
2016-07-26 11:58:10	25:00	5.61 pH	22.76 °C	37.27 µS/cm	4.22 mg/L	4.22 NTU	174.3 mV	45.33 ft	100.00 ml/min
2016-07-26 12:03:10	29:59	5.61 pH	22.72 °C	37.03 µS/cm	4.16 mg/L	4.43 NTU	175.1 mV	45.38 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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GWC-27

Sampled at 1210 on 7/26/2016 by KJ.

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-21 09:49:43

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-30</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 40.87 FT</b> <b>Total Depth: 50.87 FT</b> <b>Initial Depth to Water:</b>	<b>Pump Type: Geopump</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 45 FT</b> <b>Estimated Total Volume Pumped: 2800 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 80 ML_PER_MIN</b> <b>Final Draw Down: 1.35 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 339797</b>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Weather Conditions:**

Cloudy

80

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-21 09:49:43	00:00	7.58 pH	22.86 °C	50.97 µS/cm	5.63 mg/L	6.25 NTU	224.3 mV	29.30 ft	80.00 ml/min
2016-07-21 09:54:43	05:00	6.96 pH	22.91 °C	51.28 µS/cm	5.40 mg/L	6.42 NTU	155.0 mV	29.57 ft	80.00 ml/min
2016-07-21 09:59:43	09:59	6.60 pH	23.13 °C	51.04 µS/cm	5.29 mg/L	6.95 NTU	147.9 mV	29.69 ft	80.00 ml/min
2016-07-21 10:04:42	14:59	6.40 pH	23.18 °C	51.32 µS/cm	5.35 mg/L	5.61 NTU	142.8 mV	29.80 ft	80.00 ml/min
2016-07-21 10:09:42	19:58	6.25 pH	23.98 °C	51.40 µS/cm	5.28 mg/L	4.18 NTU	140.5 mV	29.87 ft	80.00 ml/min
2016-07-21 10:14:42	24:58	6.20 pH	24.74 °C	51.31 µS/cm	5.26 mg/L	3.23 NTU	139.6 mV	29.92 ft	80.00 ml/min
2016-07-21 10:19:42	29:58	6.19 pH	24.76 °C	51.22 µS/cm	5.25 mg/L	2.49 NTU	136.4 mV	29.95 ft	80.00 ml/min

**Samples**

Sample ID:	Description:
GWC-30	





# Low-Flow Test Report:

**Test Date / Time:** 2016-07-21 10:05:25

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-34 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 38.58 FT <b>Total Depth:</b> 48.58 FT <b>Initial Depth to Water:</b> 5.06 FT	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 43 FT <b>Estimated Total Volume Pumped:</b> 4200 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 130 ML_PER_MIN <b>Final Draw Down:</b> 0.04 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Cloudy

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-21 10:05:25	00:00	7.28 pH	25.04 °C	60.05 µS/cm	5.59 mg/L	9.79 NTU	790.0 mV	5.06 ft	150.00 ml/min
2016-07-21 10:10:25	05:00	6.03 pH	21.22 °C	52.87 µS/cm	5.46 mg/L	11.20 NTU	1,031.7 mV	5.11 ft	150.00 ml/min
2016-07-21 10:15:25	10:00	6.02 pH	21.31 °C	52.18 µS/cm	5.58 mg/L	5.27 NTU	1,037.8 mV	5.08 ft	150.00 ml/min
2016-07-21 10:20:25	15:00	6.02 pH	20.89 °C	52.12 µS/cm	5.52 mg/L	4.73 NTU	1,042.3 mV	5.06 ft	130.00 ml/min
2016-07-21 10:25:25	19:59	6.01 pH	21.11 °C	51.92 µS/cm	5.44 mg/L	4.13 NTU	1,042.6 mV	5.10 ft	130.00 ml/min
2016-07-21 10:30:25	25:00	6.01 pH	21.36 °C	51.47 µS/cm	5.30 mg/L	1.98 NTU	1,042.6 mV	5.10 ft	130.00 ml/min
2016-07-21 10:35:25	29:59	6.01 pH	21.01 °C	51.19 µS/cm	5.18 mg/L	2.15 NTU	1,043.1 mV	5.10 ft	130.00 ml/min

## Samples

Sample ID:	Description:
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GWC-34	Sampled by KJ at 1040 on 7/21/16.
FD-2 (AP)	Field Duplicate

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-07-21 12:11:48

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-35 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 30.38 FT <b>Total Depth:</b> 40.38 FT <b>Initial Depth to Water:</b> 8.88 FT	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 120 ML_PER_MIN <b>Final Draw Down:</b> 0.03 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 354698
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-07-21 12:11:48	00:00	6.01 pH	32.12 °C	52.75 µS/cm	3.95 mg/L	4.70 NTU	1,095.6 mV	8.88 ft	120.00 ml/min
2016-07-21 12:16:48	04:59	5.81 pH	24.59 °C	58.92 µS/cm	2.28 mg/L	3.11 NTU	1,093.1 mV	8.90 ft	120.00 ml/min
2016-07-21 12:21:48	09:59	5.75 pH	23.41 °C	54.98 µS/cm	2.61 mg/L	1.73 NTU	1,097.9 mV	8.91 ft	120.00 ml/min
2016-07-21 12:26:48	14:59	5.71 pH	22.98 °C	52.59 µS/cm	3.04 mg/L	1.15 NTU	1,106.5 mV	8.91 ft	120.00 ml/min
2016-07-21 12:31:48	19:59	5.70 pH	23.01 °C	52.06 µS/cm	3.14 mg/L	0.58 NTU	1,103.3 mV	8.91 ft	120.00 ml/min
2016-07-21 12:36:48	25:00	5.70 pH	22.79 °C	51.56 µS/cm	3.17 mg/L	0.70 NTU	1,101.3 mV	8.91 ft	120.00 ml/min

## Samples

Sample ID:	Description:
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GWC-35

Sampled by KJ at 1240 on 7/21/16.

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 09:24:34

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWA-1  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 39.8 FT  <b>Total Depth:</b> 49.8 FT  <b>Initial Depth to Water:</b> 27.02 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b> 44.8 FT  <b>Pump Intake From TOC:</b> 44.8 FT  <b>Estimated Total Volume Pumped:</b> 3200 ML  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 1.89 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 416162</p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 09:24:34	00:00	8.34 pH	24.99 °C	21.43 µS/cm	7.04 mg/L		226.9 mV	27.02 ft	100.00 ml/min
2016-09-15 09:29:34	04:59	5.66 pH	21.10 °C	20.12 µS/cm	6.36 mg/L	2.54 NTU	189.2 mV	27.92 ft	100.00 ml/min
2016-09-15 09:34:34	09:59	5.36 pH	20.78 °C	20.04 µS/cm	6.37 mg/L	3.54 NTU	178.6 mV	28.21 ft	100.00 ml/min
2016-09-15 09:39:34	14:59	5.35 pH	20.95 °C	19.98 µS/cm	6.30 mg/L	3.08 NTU	174.2 mV	28.47 ft	100.00 ml/min
2016-09-15 09:44:34	20:00	5.32 pH	21.22 °C	19.90 µS/cm	6.25 mg/L	3.90 NTU	171.3 mV	28.65 ft	100.00 ml/min
2016-09-15 09:49:34	24:59	5.33 pH	21.60 °C	19.88 µS/cm	6.19 mg/L	2.37 NTU	168.9 mV	28.80 ft	100.00 ml/min
2016-09-15 09:54:34	29:59	5.31 pH	21.74 °C	19.97 µS/cm	6.16 mg/L	2.03 NTU	168.5 mV	28.91 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-16 22:12:55

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWA-2</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 CM</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 49.6 FT</b> <b>Total Depth: 59.6 FT</b> <b>Initial Depth to Water: 46.7 FT</b>	<b>Pump Type: Sample pro</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length: 55 FT</b> <b>Pump Intake From TOC: 55 FT</b> <b>Estimated Total Volume Pumped: 4000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0.05 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 448902</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.33	
2016-09-16 22:12:55	00:00	7.20 pH	25.57 °C	66.93 µS/cm	7.21 mg/L	48.90 NTU	191.8 mV	46.75 ft	100.00 ml/min
2016-09-16 22:17:55	05:00	5.87 pH	20.80 °C	65.38 µS/cm	7.76 mg/L	27.10 NTU	130.8 mV	46.75 ft	100.00 ml/min
2016-09-16 22:22:55	10:00	5.75 pH	20.66 °C	66.24 µS/cm	7.86 mg/L	23.20 NTU	121.3 mV	46.75 ft	100.00 ml/min
2016-09-16 22:27:55	14:59	5.75 pH	24.26 °C	68.28 µS/cm	7.78 mg/L	11.45 NTU	122.4 mV	46.75 ft	100.00 ml/min
2016-09-16 22:32:55	20:00	5.76 pH	26.92 °C	67.90 µS/cm	7.52 mg/L	9.45 NTU	123.0 mV	46.75 ft	100.00 ml/min
2016-09-16 22:37:55	25:00	5.76 pH	28.08 °C	68.04 µS/cm	7.51 mg/L	8.76 NTU	120.7 mV	46.75 ft	100.00 ml/min
2016-09-16 22:42:55	29:59	5.73 pH	28.45 °C	65.78 µS/cm	7.35 mg/L	7.99 NTU	120.5 mV	46.75 ft	100.00 ml/min
2016-09-16 22:47:55	34:59	5.72 pH	27.57 °C	65.27 µS/cm	7.50 mg/L	6.27 NTU	119.4 mV	46.75 ft	100.00 ml/min
2016-09-16 22:52:55	39:59	5.71 pH	26.97 °C	66.00 µS/cm	7.35 mg/L	4.49 NTU	118.6 mV	46.75 ft	100.00 ml/min

## Samples

Sample ID:	Description:
GWA-2	

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-09-14 14:28:34

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWA-4</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 27.85 FT</b>  <b>Total Depth: 37.85 FT</b>  <b>Initial Depth to Water: 26.82 FT</b></p>	<p><b>Pump Type: Peristaltic</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length: 32.85 FT</b>  <b>Pump Intake From TOC: 32.85 FT</b>  <b>Estimated Total Volume Pumped: 6498.334 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 0.13 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 416162</b></p>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-14 14:28:34	00:00	6.40 pH	32.15 °C	259.04 µS/cm	2.41 mg/L		-28.8 mV	26.82 ft	100.00 ml/min
2016-09-14 14:33:34	04:59	6.40 pH	24.99 °C	273.35 µS/cm	0.69 mg/L	16.50 NTU	-18.1 mV	26.93 ft	100.00 ml/min
2016-09-14 14:38:34	10:00	6.51 pH	23.64 °C	1.12 µS/cm	4.68 mg/L	19.30 NTU	-41.2 mV	26.94 ft	100.00 ml/min
2016-09-14 14:43:34	14:59	6.40 pH	22.83 °C	276.96 µS/cm	0.44 mg/L	23.30 NTU	-9.6 mV	26.95 ft	100.00 ml/min
2016-09-14 14:48:34	19:59	6.40 pH	22.52 °C	276.12 µS/cm	0.40 mg/L	22.29 NTU	-10.3 mV	26.95 ft	100.00 ml/min
2016-09-14 14:53:33	24:59	6.39 pH	22.40 °C	271.27 µS/cm	0.40 mg/L	17.85 NTU	-7.3 mV	26.95 ft	100.00 ml/min
2016-09-14 14:58:33	29:58	6.38 pH	22.14 °C	273.03 µS/cm	0.43 mg/L	11.48 NTU	-5.6 mV	26.95 ft	100.00 ml/min
2016-09-14 15:03:33	34:58	6.36 pH	22.65 °C	269.54 µS/cm	0.48 mg/L	10.02 NTU	-4.8 mV	26.95 ft	100.00 ml/min
2016-09-14 15:08:33	39:59	6.37 pH	22.05 °C	263.09 µS/cm	0.59 mg/L	7.82 NTU	-1.5 mV	26.95 ft	100.00 ml/min
2016-09-14 15:13:33	44:59	6.37 pH	22.28 °C	262.58 µS/cm	0.47 mg/L	6.72 NTU	-1.3 mV	26.95 ft	100.00 ml/min
2016-09-14 15:18:33	49:59	6.35 pH	22.07 °C	261.55 µS/cm	0.52 mg/L	5.94 NTU	1.1 mV	26.95 ft	100.00 ml/min
2016-09-14 15:23:33	54:58	6.35 pH	22.52 °C	260.01 µS/cm	0.62 mg/L	7.01 NTU	1.5 mV	26.95 ft	100.00 ml/min



2016-09-14 15:28:33	59:58	6.34 pH	22.16 °C	263.30 µS/cm	0.55 mg/L	5.39 NTU	2.3 mV	26.95 ft	100.00 ml/min
2016-09-14 15:33:33	01:04:59	6.34 pH	22.36 °C	256.65 µS/cm	0.77 mg/L	4.94 NTU	4.4 mV	26.95 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-16 02:33:31

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWA-28</b>  <b>Latitude: 0</b>  <b>Longitude: 0</b>  <b>Well Diameter: 2 CM</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 35.67 FT</b>  <b>Total Depth: 45.67 FT</b>  <b>Initial Depth to Water: 27.12 FT</b></p>	<p><b>Pump Type: Sample pro</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length: 40 FT</b>  <b>Pump Intake From TOC: 40 FT</b>  <b>Estimated Total Volume Pumped: 4500 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 2.56 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 448902</b></p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-16 02:33:31	00:00	6.55 pH	32.60 °C	66.60 µS/cm	5.52 mg/L	1.81 NTU	143.5 mV	27.12 ft	100.00 ml/min
2016-09-16 02:38:31	05:00	6.20 pH	22.04 °C	65.48 µS/cm	3.97 mg/L	3.45 NTU	79.3 mV	28.04 ft	100.00 ml/min
2016-09-16 02:43:31	10:00	6.16 pH	20.93 °C	64.73 µS/cm	3.89 mg/L	2.26 NTU	75.6 mV	28.40 ft	100.00 ml/min
2016-09-16 02:48:31	15:00	6.15 pH	20.82 °C	64.41 µS/cm	3.94 mg/L	2.13 NTU	75.6 mV	28.95 ft	100.00 ml/min
2016-09-16 02:53:31	20:00	6.14 pH	20.59 °C	64.11 µS/cm	4.10 mg/L	1.59 NTU	76.7 mV	29.21 ft	100.00 ml/min
2016-09-16 02:58:31	24:59	6.12 pH	21.07 °C	64.95 µS/cm	4.34 mg/L	1.58 NTU	76.7 mV	29.68 ft	100.00 ml/min
2016-09-16 03:03:31	30:00	6.12 pH	22.71 °C	64.20 µS/cm	4.62 mg/L	1.46 NTU	79.4 mV	29.68 ft	100.00 ml/min
2016-09-16 03:08:31	35:00	6.10 pH	23.29 °C	63.42 µS/cm	5.16 mg/L	1.52 NTU	87.6 mV	29.68 ft	100.00 ml/min
2016-09-16 03:13:31	40:00	6.07 pH	23.34 °C	62.93 µS/cm	5.34 mg/L	1.39 NTU	90.3 mV	29.68 ft	100.00 ml/min
2016-09-16 03:18:31	45:00	6.09 pH	23.39 °C	62.50 µS/cm	5.53 mg/L	1.48 NTU	91.1 mV	29.68 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWA-28	

# Low-Flow Test Report:

Test Date / Time: 2016-09-15 21:18:36

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWA-29</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 47.08 FT</b> <b>Total Depth: 57.08 FT</b> <b>Initial Depth to Water: 50.93 FT</b>	<b>Pump Type: Samplepro</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 52 FT</b> <b>Estimated Total Volume Pumped: 2500 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 1.07 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 448902</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 21:18:36	00:00	6.44 pH	21.09 °C	98.43 µS/cm	6.75 mg/L	6.79 NTU	119.2 mV	51.91 ft	100.00 ml/min
2016-09-15 21:23:36	05:00	6.31 pH	21.01 °C	98.02 µS/cm	6.45 mg/L	6.45 NTU	107.3 mV	51.91 ft	100.00 ml/min
2016-09-15 21:28:36	10:00	6.24 pH	22.04 °C	98.72 µS/cm	5.97 mg/L	6.07 NTU	104.1 mV	51.91 ft	100.00 ml/min
2016-09-15 21:33:36	15:00	6.20 pH	24.17 °C	99.52 µS/cm	5.92 mg/L	5.53 NTU	102.3 mV	51.95 ft	100.00 ml/min
2016-09-15 21:38:36	19:59	6.19 pH	26.14 °C	100.71 µS/cm	5.83 mg/L	5.24 NTU	104.7 mV	52.00 ft	100.00 ml/min
2016-09-15 21:43:36	25:00	6.18 pH	25.04 °C	99.20 µS/cm	7.11 mg/L	5.04 NTU	106.7 mV	52.00 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 11:59:01

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-5 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 26.72 FT <b>Total Depth:</b> 36.72 FT <b>Initial Depth to Water:</b> 23.45 FT	<b>Pump Type:</b> Geopump <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 31 FT <b>Estimated Total Volume Pumped:</b> 3498.334 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 1.35 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 418098
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.3	
2016-09-15 11:59:01	00:00	7.04 pH	31.38 °C	291.37 µS/cm	2.44 mg/L	1.68 NTU	-39.3 mV	23.81 ft	100.00 ml/min
2016-09-15 12:04:01	05:00	7.27 pH	22.52 °C	331.48 µS/cm	0.78 mg/L	3.06 NTU	-60.0 mV	24.34 ft	100.00 ml/min
2016-09-15 12:09:01	09:59	6.82 pH	22.42 °C	317.92 µS/cm	0.83 mg/L	2.64 NTU	16.6 mV	24.46 ft	100.00 ml/min
2016-09-15 12:14:00	14:59	6.44 pH	22.85 °C	280.22 µS/cm	1.28 mg/L	2.02 NTU	59.3 mV	24.54 ft	100.00 ml/min
2016-09-15 12:19:00	19:59	6.34 pH	22.87 °C	249.31 µS/cm	1.30 mg/L	1.18 NTU	67.3 mV	24.65 ft	100.00 ml/min
2016-09-15 12:24:00	24:59	6.28 pH	22.97 °C	240.31 µS/cm	0.85 mg/L	2.02 NTU	67.7 mV	24.73 ft	100.00 ml/min
2016-09-15 12:29:00	29:59	6.28 pH	23.51 °C	238.37 µS/cm	0.88 mg/L	1.53 NTU	64.9 mV	24.77 ft	100.00 ml/min
2016-09-15 12:34:00	34:59	6.26 pH	23.52 °C	237.04 µS/cm	0.77 mg/L	0.80 NTU	63.3 mV	24.80 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWC-5	Sampled at 1240 on 9/15/16 by KJ

# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 14:37:26

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-6 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 21.12 FT <b>Total Depth:</b> 31.12 FT <b>Initial Depth to Water:</b> 21.22 FT	<b>Pump Type:</b> <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 26 FT <b>Estimated Total Volume Pumped:</b> 2999.999 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 150 ML_PER_MIN <b>Final Draw Down:</b> 0.13 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 418098
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.3	
2016-09-15 14:37:26	00:00	6.38 pH	33.76 °C	178.19 µS/cm	2.68 mg/L	2.14 NTU	98.2 mV	21.29 ft	150.00 ml/min
2016-09-15 14:42:26	04:59	6.03 pH	22.70 °C	201.62 µS/cm	0.46 mg/L	4.79 NTU	78.7 mV	21.34 ft	150.00 ml/min
2016-09-15 14:47:26	09:59	6.02 pH	22.54 °C	205.37 µS/cm	0.52 mg/L	3.25 NTU	74.7 mV	21.35 ft	150.00 ml/min
2016-09-15 14:52:26	14:59	6.01 pH	22.45 °C	201.45 µS/cm	0.51 mg/L	3.67 NTU	72.2 mV	21.35 ft	150.00 ml/min
2016-09-15 14:57:26	19:59	6.01 pH	21.94 °C	202.52 µS/cm	0.55 mg/L	3.62 NTU	68.5 mV	21.35 ft	150.00 ml/min

## Samples

Sample ID:	Description:
GWC-6	Sampled at 1500 on 9/15/16 by KJ





# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 13:51:42

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC-7  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 16.2 FT  <b>Total Depth:</b> 26.2 FT  <b>Initial Depth to Water:</b></p>	<p><b>Pump Type:</b> Geopump  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 21 FT  <b>Estimated Total Volume Pumped:</b>  <b>4500 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 3.72 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 339100</p>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 13:51:42	00:00	6.35 pH	33.81 °C	728.91 µS/cm	2.98 mg/L	0.17 NTU	44.8 mV	9.91 ft	100.00 ml/min
2016-09-15 13:56:42	04:59	6.36 pH	27.98 °C	832.44 µS/cm	0.45 mg/L	0.05 NTU	32.4 mV	10.62 ft	100.00 ml/min
2016-09-15 14:01:42	09:59	6.38 pH	28.22 °C	812.33 µS/cm	0.31 mg/L	0.23 NTU	34.2 mV	11.13 ft	100.00 ml/min
2016-09-15 14:06:42	14:59	6.38 pH	27.89 °C	809.37 µS/cm	0.23 mg/L	0.10 NTU	36.9 mV	11.55 ft	100.00 ml/min
2016-09-15 14:11:42	19:59	6.38 pH	28.05 °C	805.79 µS/cm	0.21 mg/L	0.10 NTU	36.3 mV	11.93 ft	100.00 ml/min
2016-09-15 14:16:42	24:59	6.38 pH	27.68 °C	800.39 µS/cm	0.19 mg/L	0.15 NTU	50.5 mV	12.30 ft	100.00 ml/min
2016-09-15 14:21:42	29:59	6.38 pH	27.67 °C	788.63 µS/cm	0.18 mg/L	0.14 NTU	38.7 mV	12.61 ft	100.00 ml/min
2016-09-15 14:26:42	35:00	6.38 pH	28.30 °C	774.97 µS/cm	0.18 mg/L	0.23 NTU	52.3 mV	12.89 ft	100.00 ml/min
2016-09-15 14:31:42	40:00	6.38 pH	27.42 °C	774.87 µS/cm	0.18 mg/L	0.21 NTU	57.8 mV	13.15 ft	100.00 ml/min
2016-09-15 14:36:42	45:00	6.38 pH	27.66 °C	768.41 µS/cm	0.17 mg/L	0.38 NTU	69.0 mV	13.30 ft	100.00 ml/min
2016-09-15 14:41:42	50:00	6.38 pH	28.31 °C	768.80 µS/cm	0.18 mg/L	0.09 NTU	73.3 mV	13.40 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWC-7	Sampled at 1440 0.09 NTU

# Low-Flow Test Report:

**Test Date / Time:** 2016-09-19 11:19:15

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC-8  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 10.62 FT  <b>Total Depth:</b> 20.62 FT  <b>Initial Depth to Water:</b></p>	<p><b>Pump Type:</b> Geopump  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 15 FT  <b>Estimated Total Volume Pumped:</b>                  20000 ML  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 500 ML_PER_MIN  <b>Final Draw Down:</b> 6.55 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 339100</p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-19 11:19:15	00:00	6.55 pH	32.74 °C	397.75 µS/cm	4.16 mg/L	0.80 NTU	117.8 mV	10.48 ft	500.00 ml/min
2016-09-19 11:24:15	05:00	6.00 pH	25.69 °C	345.22 µS/cm	0.55 mg/L	0.38 NTU	68.1 mV	11.05 ft	500.00 ml/min
2016-09-19 11:29:15	10:00	6.00 pH	23.52 °C	337.48 µS/cm	0.25 mg/L	0.13 NTU	63.2 mV	11.75 ft	500.00 ml/min
2016-09-19 11:34:15	14:59	5.99 pH	23.85 °C	341.95 µS/cm	0.25 mg/L	0.26 NTU	34.3 mV	12.64 ft	500.00 ml/min
2016-09-19 11:39:14	19:59	6.00 pH	23.61 °C	335.57 µS/cm	0.18 mg/L	0.61 NTU	88.9 mV	13.63 ft	500.00 ml/min
2016-09-19 11:44:14	24:59	6.03 pH	23.32 °C	336.47 µS/cm	0.13 mg/L	0.75 NTU	133.8 mV	14.60 ft	500.00 ml/min
2016-09-19 11:49:14	29:59	6.01 pH	22.27 °C	333.40 µS/cm	0.27 mg/L	1.54 NTU	109.2 mV	15.48 ft	500.00 ml/min
2016-09-19 11:54:14	34:58	6.04 pH	22.83 °C	334.49 µS/cm	0.10 mg/L	1.04 NTU	140.2 mV	16.30 ft	500.00 ml/min
2016-09-19 11:59:14	39:59	6.05 pH	22.86 °C	338.60 µS/cm	0.10 mg/L	0.53 NTU	162.1 mV	16.91 ft	500.00 ml/min

**Samples**

Sample ID:	Description:
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GWC-8	Sampled at 1200 0.53 NTU Sampled using 3 volume method
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-19 12:52:52

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWC-9</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 9.22 FT</b>  <b>Total Depth: 19.22 FT</b>  <b>Initial Depth to Water:</b></p>	<p><b>Pump Type: Geopump</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length:</b>  <b>Pump Intake From TOC: 15 FT</b>  <b>Estimated Total Volume Pumped: 3000 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 0.5 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 339100</b></p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-19 12:52:52	00:00	6.32 pH	46.05 °C	388.16 µS/cm	2.70 mg/L	1.46 NTU	69.6 mV	8.40 ft	100.00 ml/min
2016-09-19 12:57:52	05:00	5.77 pH	27.71 °C	435.54 µS/cm	0.52 mg/L	0.67 NTU	114.6 mV	8.52 ft	100.00 ml/min
2016-09-19 13:02:52	09:59	5.74 pH	28.19 °C	440.23 µS/cm	0.32 mg/L	2.08 NTU	156.3 mV	8.61 ft	100.00 ml/min
2016-09-19 13:07:52	14:59	5.73 pH	27.36 °C	439.51 µS/cm	0.22 mg/L	0.88 NTU	345.6 mV	8.66 ft	100.00 ml/min
2016-09-19 13:12:52	20:00	5.73 pH	27.42 °C	438.43 µS/cm	0.20 mg/L	0.45 NTU	430.0 mV	8.72 ft	100.00 ml/min
2016-09-19 13:17:52	24:59	5.72 pH	27.68 °C	437.75 µS/cm	0.19 mg/L	0.13 NTU	414.6 mV	8.80 ft	100.00 ml/min
2016-09-19 13:22:52	29:59	5.72 pH	27.71 °C	435.92 µS/cm	0.20 mg/L	0.59 NTU	408.2 mV	8.85 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWC-9	Sampled at 1325 0.59 NTU





# Low-Flow Test Report:

Test Date / Time: 2016-09-19 14:23:43

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-11</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 8.19 FT</b> <b>Total Depth: 18.19 FT</b> <b>Initial Depth to Water:</b>	<b>Pump Type: Geopump</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 13 FT</b> <b>Estimated Total Volume Pumped: 3000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0.06 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 339100</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-19 14:23:43	00:00	6.03 pH	50.56 °C	478.24 µS/cm	2.90 mg/L	3.77 NTU	-38.9 mV	7.54 ft	100.00 ml/min
2016-09-19 14:28:43	05:00	6.19 pH	30.89 °C	500.91 µS/cm	0.43 mg/L	2.92 NTU	-29.4 mV	7.54 ft	100.00 ml/min
2016-09-19 14:33:43	09:59	6.20 pH	29.82 °C	498.63 µS/cm	0.25 mg/L	1.63 NTU	-18.9 mV	7.54 ft	100.00 ml/min
2016-09-19 14:38:43	14:59	6.20 pH	29.24 °C	496.64 µS/cm	0.19 mg/L	1.41 NTU	-32.1 mV	7.54 ft	100.00 ml/min
2016-09-19 14:43:43	20:00	6.20 pH	29.15 °C	496.52 µS/cm	0.15 mg/L	0.91 NTU	-30.1 mV	7.54 ft	100.00 ml/min
2016-09-19 14:48:43	24:59	6.19 pH	29.19 °C	494.89 µS/cm	0.14 mg/L	1.24 NTU	-31.6 mV	7.54 ft	100.00 ml/min
2016-09-19 14:53:43	30:00	6.19 pH	29.13 °C	493.34 µS/cm	0.12 mg/L	0.53 NTU	-33.8 mV	7.54 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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GWC-11	Sampled at 1450 0.53 NTU
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 11:08:49

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC - 12  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 30.66 FT  <b>Total Depth:</b> 40.66 FT  <b>Initial Depth to Water:</b> 26.98 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 35.66 FT  <b>Estimated Total Volume Pumped:</b>  <b>3440 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 2.02 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 416162</p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 11:08:49	00:00	6.28 pH	34.28 °C	242.88 µS/cm	3.48 mg/L		-97.0 mV	26.98 ft	100.00 ml/min
2016-09-15 11:12:00	03:11	6.86 pH	24.20 °C	268.13 µS/cm	0.57 mg/L		-124.4 mV	26.98 ft	100.00 ml/min
2016-09-15 11:17:00	08:11	7.16 pH	22.97 °C	275.55 µS/cm	0.36 mg/L	1.29 NTU	-130.9 mV	28.51 ft	100.00 ml/min
2016-09-15 11:22:00	13:11	7.30 pH	24.15 °C	278.11 µS/cm	0.35 mg/L	1.13 NTU	-135.6 mV	28.84 ft	100.00 ml/min
2016-09-15 11:27:00	18:11	7.38 pH	25.04 °C	277.53 µS/cm	0.35 mg/L	1.42 NTU	-135.5 mV	28.86 ft	100.00 ml/min
2016-09-15 11:32:00	23:11	7.43 pH	25.34 °C	272.97 µS/cm	0.78 mg/L	1.38 NTU	-119.1 mV	28.89 ft	100.00 ml/min
2016-09-15 11:37:00	28:11	7.45 pH	24.95 °C	272.34 µS/cm	1.38 mg/L	1.01 NTU	-102.2 mV	29.00 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 12:47:03

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC - 13  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 78.3 FT  <b>Total Depth:</b> 88.3 FT  <b>Initial Depth to Water:</b> 7.32 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 83.3 FT  <b>Estimated Total Volume Pumped:</b>  <b>7000 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 280 ML_PER_MIN  <b>Final Draw Down:</b> 0.25 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 416162</p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 12:47:03	00:00	7.57 pH	29.40 °C	53.35 µS/cm	3.86 mg/L		112.2 mV	7.32 ft	200.00 ml/min
2016-09-15 12:52:03	05:00	7.07 pH	23.03 °C	58.76 µS/cm	4.49 mg/L	1.95 NTU	87.7 mV	7.45 ft	210.00 ml/min
2016-09-15 12:57:03	10:00	6.93 pH	21.86 °C	61.12 µS/cm	4.63 mg/L	0.99 NTU	82.0 mV	7.49 ft	280.00 ml/min
2016-09-15 13:02:03	14:59	6.83 pH	21.11 °C	59.76 µS/cm	5.00 mg/L	0.18 NTU	87.5 mV	7.52 ft	280.00 ml/min
2016-09-15 13:07:03	19:59	6.76 pH	21.17 °C	58.97 µS/cm	5.03 mg/L	0.51 NTU	87.8 mV	7.55 ft	280.00 ml/min
2016-09-15 13:12:03	24:59	6.74 pH	20.86 °C	59.90 µS/cm	4.91 mg/L	0.88 NTU	82.7 mV	7.57 ft	280.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2016-09-15 14:05:57

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 14</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 13.59 FT</b> <b>Total Depth: 23.59 FT</b> <b>Initial Depth to Water: 10.4 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 18.59 FT</b> <b>Estimated Total Volume Pumped: 4000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 200 ML_PER_MIN</b> <b>Final Draw Down: 0.12 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 416162</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 14:05:57	00:00	5.22 pH	29.33 °C	398.41 µS/cm	0.33 mg/L		250.7 mV	10.40 ft	200.00 ml/min
2016-09-15 14:10:57	05:00	5.10 pH	23.62 °C	435.26 µS/cm	0.19 mg/L	0.76 NTU	183.1 mV	10.52 ft	200.00 ml/min
2016-09-15 14:15:57	10:00	5.08 pH	22.97 °C	440.47 µS/cm	0.13 mg/L	0.69 NTU	174.4 mV	10.52 ft	200.00 ml/min
2016-09-15 14:20:57	15:00	5.08 pH	22.55 °C	445.41 µS/cm	0.12 mg/L	1.09 NTU	162.7 mV	10.52 ft	200.00 ml/min
2016-09-15 14:25:57	20:00	5.10 pH	22.55 °C	428.29 µS/cm	0.11 mg/L	1.69 NTU	157.2 mV	10.52 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 08:45:55

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC-15  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 40.42 FT  <b>Total Depth:</b> 50.42 FT  <b>Initial Depth to Water:</b></p>	<p><b>Pump Type:</b> Geopump  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 45 FT  <b>Estimated Total Volume Pumped:</b>  <b>3000 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 0.02 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 339100</p>
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**Test Notes:**

Golder Associates

Groundwater

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**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-20 08:45:55	00:00	8.16 pH	22.10 °C	157.43 µS/cm	6.37 mg/L	22.60 NTU	167.3 mV	7.90 ft	100.00 ml/min
2016-09-20 08:50:55	05:00	6.71 pH	19.86 °C	90.03 µS/cm	4.07 mg/L	1.61 NTU	117.6 mV	7.92 ft	100.00 ml/min
2016-09-20 08:55:55	10:00	6.58 pH	19.32 °C	89.52 µS/cm	4.04 mg/L	0.77 NTU	114.3 mV	7.92 ft	100.00 ml/min
2016-09-20 09:00:55	15:00	6.54 pH	19.19 °C	89.85 µS/cm	4.01 mg/L	0.12 NTU	111.1 mV	7.92 ft	100.00 ml/min
2016-09-20 09:05:55	20:00	6.52 pH	19.15 °C	89.69 µS/cm	3.97 mg/L	0.04 NTU	109.4 mV	7.92 ft	100.00 ml/min
2016-09-20 09:10:55	25:00	6.52 pH	19.08 °C	89.60 µS/cm	3.94 mg/L	0.67 NTU	108.9 mV	7.92 ft	100.00 ml/min
2016-09-20 09:15:55	29:59	6.52 pH	19.06 °C	89.03 µS/cm	3.92 mg/L	0.07 NTU	107.7 mV	7.92 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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GWC-15	Sampled at 0915 0.07 NTU
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-16 08:35:37

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC - 16 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 17.08 FT <b>Total Depth:</b> 27.08 FT <b>Initial Depth to Water:</b> 13.16 FT	<b>Pump Type:</b> Peristaltic <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 22.08 FT <b>Estimated Total Volume Pumped:</b> 4100 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 270 ML_PER_MIN <b>Final Draw Down:</b> 0.13 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 416162
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## Test Notes:

Golder Associates

Groundwater

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## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-16 08:35:37	00:00	7.56 pH	21.36 °C	92.62 µS/cm	5.74 mg/L		184.0 mV	13.16 ft	200.00 ml/min
2016-09-16 08:40:37	04:59	6.14 pH	18.71 °C	90.92 µS/cm	4.01 mg/L	0.23 NTU	124.0 mV	13.28 ft	270.00 ml/min
2016-09-16 08:45:37	09:59	6.10 pH	18.39 °C	90.79 µS/cm	4.00 mg/L	0.46 NTU	117.3 mV	13.29 ft	270.00 ml/min
2016-09-16 08:50:37	14:59	6.10 pH	18.37 °C	90.65 µS/cm	3.93 mg/L	0.46 NTU	113.8 mV	13.29 ft	270.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-19 09:45:41

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC - 17  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 43.18 FT  <b>Total Depth:</b> 53.18 FT  <b>Initial Depth to Water:</b> 24.39 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 48.18 FT  <b>Estimated Total Volume Pumped:</b> 4000 ML  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 0.95 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 416162</p>
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**Test Notes:**

Golder Associates

Groundwater

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**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-19 09:45:41	00:00	7.95 pH	24.28 °C	118.95 µS/cm	6.35 mg/L		174.1 mV	24.39 ft	100.00 ml/min
2016-09-19 09:50:41	05:00	6.32 pH	20.97 °C	112.63 µS/cm	3.35 mg/L	11.60 NTU	117.3 mV	24.95 ft	100.00 ml/min
2016-09-19 09:55:41	10:00	6.28 pH	20.61 °C	112.66 µS/cm	3.17 mg/L	20.20 NTU	110.1 mV	25.21 ft	100.00 ml/min
2016-09-19 10:00:41	15:00	6.27 pH	20.69 °C	112.93 µS/cm	3.12 mg/L	18.90 NTU	108.8 mV	25.31 ft	100.00 ml/min
2016-09-19 10:05:41	20:00	6.27 pH	20.82 °C	112.39 µS/cm	3.13 mg/L	14.80 NTU	107.4 mV	25.33 ft	100.00 ml/min
2016-09-19 10:10:41	25:00	6.28 pH	20.86 °C	112.30 µS/cm	3.08 mg/L	10.20 NTU	105.2 mV	25.34 ft	100.00 ml/min
2016-09-19 10:15:41	30:00	6.28 pH	20.96 °C	112.03 µS/cm	3.07 mg/L	6.71 NTU	104.2 mV	25.34 ft	100.00 ml/min
2016-09-19 10:20:41	35:00	6.27 pH	20.87 °C	111.70 µS/cm	3.04 mg/L	5.90 NTU	103.9 mV	25.34 ft	100.00 ml/min
2016-09-19 10:25:41	40:00	6.27 pH	20.89 °C	111.88 µS/cm	3.02 mg/L	4.93 NTU	102.5 mV	25.34 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-19 12:12:10

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWC - 18</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 19.76 FT</b>  <b>Total Depth: 29.76 FT</b>  <b>Initial Depth to Water: 21.15 FT</b></p>	<p><b>Pump Type: Peristaltic</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length:</b>  <b>Pump Intake From TOC: 26 FT</b>  <b>Estimated Total Volume Pumped: 15275.001 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 300 ML_PER_MIN</b>  <b>Final Draw Down: 0.08 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 416162</b></p>
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## Test Notes:

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## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-19 12:12:10	00:00	6.36 pH	25.03 °C	77.14 µS/cm	1.66 mg/L		181.9 mV	21.15 ft	200.00 ml/min
2016-09-19 12:17:10	04:59	6.11 pH	20.12 °C	82.64 µS/cm	1.43 mg/L	19.60 NTU	100.4 mV	21.21 ft	200.00 ml/min
2016-09-19 12:22:10	10:00	6.08 pH	19.51 °C	82.77 µS/cm	1.39 mg/L	9.12 NTU	97.9 mV	21.22 ft	255.00 ml/min
2016-09-19 12:27:10	14:59	6.06 pH	18.95 °C	82.49 µS/cm	1.52 mg/L	5.75 NTU	96.0 mV	21.22 ft	300.00 ml/min
2016-09-19 12:32:10	20:00	6.06 pH	19.13 °C	82.64 µS/cm	1.50 mg/L	6.25 NTU	94.8 mV	21.23 ft	300.00 ml/min
2016-09-19 12:37:10	24:59	6.04 pH	19.18 °C	82.31 µS/cm	1.51 mg/L	4.37 NTU	94.8 mV	21.23 ft	300.00 ml/min
2016-09-19 12:42:10	30:00	6.05 pH	18.91 °C	82.02 µS/cm	1.51 mg/L	3.71 NTU	93.0 mV	21.23 ft	300.00 ml/min
2016-09-19 12:47:10	34:59	6.04 pH	18.91 °C	81.41 µS/cm	1.50 mg/L	1.46 NTU	92.5 mV	21.23 ft	300.00 ml/min
2016-09-19 12:52:10	39:59	6.04 pH	18.72 °C	81.69 µS/cm	1.47 mg/L	1.00 NTU	91.9 mV	21.23 ft	300.00 ml/min
2016-09-19 12:57:10	44:59	6.05 pH	18.76 °C	81.64 µS/cm	1.47 mg/L	0.71 NTU	91.6 mV	21.23 ft	300.00 ml/min
2016-09-19 13:02:10	50:00	6.04 pH	18.77 °C	81.56 µS/cm	1.51 mg/L	1.25 NTU	92.4 mV	21.23 ft	300.00 ml/min
2016-09-19 13:07:10	55:00	6.04 pH	18.73 °C	81.40 µS/cm	1.50 mg/L	1.01 NTU	91.1 mV	21.23 ft	300.00 ml/min

**Samples**

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 2016-09-19 13:50:30

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC - 19</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 27.55 FT</b> <b>Total Depth: 37.55 FT</b> <b>Initial Depth to Water: 16.31 FT</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 32.55 FT</b> <b>Estimated Total Volume Pumped: 3248.334 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0.7 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 416162</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-19 13:50:30	00:00	6.28 pH	25.07 °C	68.17 µS/cm	1.81 mg/L		200.4 mV	16.31 ft	150.00 ml/min
2016-09-19 13:55:30	05:00	6.07 pH	20.96 °C	72.27 µS/cm	1.02 mg/L	2.29 NTU	98.9 mV	17.00 ft	100.00 ml/min
2016-09-19 14:00:30	10:00	6.06 pH	21.45 °C	73.40 µS/cm	1.04 mg/L	2.21 NTU	92.2 mV	17.01 ft	100.00 ml/min
2016-09-19 14:05:30	15:00	6.05 pH	21.62 °C	72.65 µS/cm	0.97 mg/L	3.48 NTU	90.8 mV	17.01 ft	100.00 ml/min
2016-09-19 14:10:30	20:00	6.06 pH	21.62 °C	71.66 µS/cm	0.92 mg/L	1.68 NTU	87.9 mV	17.01 ft	100.00 ml/min
2016-09-19 14:15:29	24:59	6.05 pH	21.49 °C	72.83 µS/cm	0.91 mg/L	1.62 NTU	84.5 mV	17.01 ft	100.00 ml/min
2016-09-19 14:20:29	29:59	6.06 pH	21.82 °C	71.81 µS/cm	0.89 mg/L		84.9 mV	17.01 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 08:40:10

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC - 20  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 57.58 FT  <b>Total Depth:</b> 67.58 FT  <b>Initial Depth to Water:</b> 12.16 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 62.58 FT  <b>Estimated Total Volume Pumped:</b>  <b>5750.002 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 200 ML_PER_MIN  <b>Final Draw Down:</b> 0.15 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 416162</p>
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## Test Notes:

Golder Associates

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## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-20 08:40:10	00:00	7.12 pH	20.73 °C	115.85 µS/cm	3.83 mg/L		202.3 mV	12.16 ft	150.00 ml/min
2016-09-20 08:45:10	05:00	6.44 pH	19.26 °C	116.08 µS/cm	1.43 mg/L	7.25 NTU	97.9 mV	12.23 ft	200.00 ml/min
2016-09-20 08:50:10	10:00	6.40 pH	18.72 °C	115.60 µS/cm	1.20 mg/L	7.98 NTU	89.0 mV	12.28 ft	200.00 ml/min
2016-09-20 08:55:10	15:00	6.37 pH	18.46 °C	116.16 µS/cm	1.15 mg/L	9.70 NTU	85.8 mV	12.31 ft	200.00 ml/min
2016-09-20 09:00:10	20:00	6.38 pH	18.50 °C	115.81 µS/cm	1.15 mg/L	6.55 NTU	81.1 mV	12.31 ft	200.00 ml/min
2016-09-20 09:05:10	25:00	6.38 pH	18.51 °C	115.31 µS/cm	1.14 mg/L	5.51 NTU	76.2 mV	12.31 ft	200.00 ml/min
2016-09-20 09:10:10	30:00	6.38 pH	18.55 °C	114.49 µS/cm	1.16 mg/L	3.43 NTU	72.7 mV	12.31 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 09:57:15

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC - 21  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 28.9 FT  <b>Total Depth:</b> 38.9 FT  <b>Initial Depth to Water:</b> 21.58 FT</p>	<p><b>Pump Type:</b> Peristaltic  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 33.9 FT  <b>Estimated Total Volume Pumped:</b>  <b>3000 ML</b>  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 100 ML_PER_MIN  <b>Final Draw Down:</b> 1.8 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 416162</p>
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**Test Notes:**

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**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-20 09:57:15	00:00	6.58 pH	21.57 °C	51.29 µS/cm	5.18 mg/L		195.7 mV	21.58 ft	100.00 ml/min
2016-09-20 10:02:15	05:00	5.79 pH	19.29 °C	49.38 µS/cm	0.64 mg/L	4.21 NTU	113.1 mV	22.63 ft	100.00 ml/min
2016-09-20 10:07:15	10:00	5.74 pH	19.13 °C	49.86 µS/cm	0.57 mg/L	1.28 NTU	106.4 mV	22.92 ft	100.00 ml/min
2016-09-20 10:12:15	15:00	5.73 pH	19.38 °C	49.47 µS/cm	0.53 mg/L	1.03 NTU	102.7 mV	23.11 ft	100.00 ml/min
2016-09-20 10:17:15	19:59	5.73 pH	19.40 °C	49.45 µS/cm	0.50 mg/L	1.31 NTU	100.8 mV	23.26 ft	100.00 ml/min
2016-09-20 10:22:15	25:00	5.72 pH	19.43 °C	49.56 µS/cm	0.49 mg/L	0.74 NTU	98.2 mV	23.32 ft	100.00 ml/min
2016-09-20 10:27:15	29:59	5.72 pH	19.35 °C	49.25 µS/cm	0.46 mg/L	0.91 NTU	97.1 mV	23.38 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 10:09:42

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWC-22</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 69 FT</b>  <b>Total Depth: 79 FT</b>  <b>Initial Depth to Water:</b></p>	<p><b>Pump Type: Geopump</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length:</b>  <b>Pump Intake From TOC: 74 FT</b>  <b>Estimated Total Volume Pumped: 4000 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 0.41 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 339100</b></p>
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**Test Notes:**

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Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-20 10:09:42	00:00	6.70 pH	27.59 °C	102.53 µS/cm	6.50 mg/L	1.59 NTU	114.4 mV	29.22 ft	100.00 ml/min
2016-09-20 10:14:42	04:59	6.50 pH	23.24 °C	129.42 µS/cm	3.89 mg/L	0.77 NTU	116.4 mV	29.33 ft	100.00 ml/min
2016-09-20 10:19:42	10:00	6.48 pH	22.93 °C	129.39 µS/cm	3.31 mg/L	0.40 NTU	139.5 mV	29.39 ft	100.00 ml/min
2016-09-20 10:24:42	14:59	6.47 pH	23.00 °C	128.56 µS/cm	3.21 mg/L	0.68 NTU	249.5 mV	29.42 ft	100.00 ml/min
2016-09-20 10:29:42	19:59	6.47 pH	23.47 °C	129.34 µS/cm	3.17 mg/L	0.07 NTU	328.4 mV	29.44 ft	100.00 ml/min
2016-09-20 10:34:42	25:00	6.46 pH	23.70 °C	121.16 µS/cm	3.16 mg/L	0.14 NTU	358.8 mV	29.46 ft	100.00 ml/min
2016-09-20 10:39:42	30:00	6.48 pH	24.06 °C	128.21 µS/cm	3.14 mg/L	0.19 NTU	356.6 mV	29.46 ft	100.00 ml/min
2016-09-20 10:44:42	35:00	6.47 pH	23.95 °C	127.91 µS/cm	3.11 mg/L	0.45 NTU	349.8 mV	29.46 ft	100.00 ml/min
2016-09-20 10:49:42	39:59	6.48 pH	24.15 °C	128.82 µS/cm	3.10 mg/L	0.02 NTU	337.5 mV	29.46 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
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GWC-22	Sampled at 1050 0.02 NTU EB-4
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 21:01:28

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name: GWC-23</b>  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter: 2 IN</b>  <b>Casing Type: PVC</b>  <b>Screen Length: 10 FT</b>  <b>Top of Screen: 58.36 FT</b>  <b>Total Depth: 68.36 FT</b>  <b>Initial Depth to Water: 39.04 FT</b></p>	<p><b>Pump Type: Samplepro</b>  <b>Tubing Type: polyethylene</b>  <b>Tubing Inner Diameter: 0.125 IN</b>  <b>Tubing Length:</b>  <b>Pump Intake From TOC: 63 FT</b>  <b>Estimated Total Volume Pumped: 3000 ML</b>  <b>Flow Cell Volume: 90 ML</b>  <b>Final Flow Rate: 100 ML_PER_MIN</b>  <b>Final Draw Down: 0.6 FT</b></p>	<p><b>Instrument Used: SmarTROLL MP</b>  <b>Serial Number: 448902</b></p>
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**Test Notes:**

Golder Associates

Groundwater

Lamotte 2020

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.33	
2016-09-20 21:01:28	00:00	7.30 pH	23.88 °C	56.06 µS/cm	7.48 mg/L	3.37 NTU	186.9 mV	39.40 ft	100.00 ml/min
2016-09-20 21:06:28	04:59	6.05 pH	20.62 °C	48.10 µS/cm	6.78 mg/L	4.59 NTU	110.4 mV	39.52 ft	100.00 ml/min
2016-09-20 21:11:28	09:59	5.95 pH	20.44 °C	47.51 µS/cm	6.63 mg/L	3.00 NTU	95.3 mV	39.61 ft	100.00 ml/min
2016-09-20 21:16:28	14:59	5.90 pH	20.31 °C	46.93 µS/cm	6.56 mg/L	3.61 NTU	91.8 mV	39.64 ft	100.00 ml/min
2016-09-20 21:21:28	20:00	5.90 pH	20.26 °C	45.60 µS/cm	6.47 mg/L	2.70 NTU	90.7 mV	39.64 ft	100.00 ml/min
2016-09-20 21:26:28	25:00	5.89 pH	20.26 °C	45.23 µS/cm	6.42 mg/L	1.74 NTU	89.7 mV	39.64 ft	100.00 ml/min
2016-09-20 21:31:28	29:59	5.89 pH	20.25 °C	45.15 µS/cm	6.38 mg/L	1.88 NTU	89.6 mV	39.64 ft	100.00 ml/min

**Samples**

Sample ID:	Description:
GWC-23	





# Low-Flow Test Report:

Test Date / Time: 2016-09-19 14:52:30

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-25</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 47.97 FT</b> <b>Total Depth: 57.97 FT</b> <b>Initial Depth to Water: 50.31 FT</b>	<b>Pump Type: Samplepro</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 54 FT</b> <b>Estimated Total Volume Pumped: 2999.999 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 0.28 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 418098</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.3	
2016-09-19 14:52:30	00:00	6.07 pH	26.20 °C	109.18 µS/cm	6.65 mg/L	1.67 NTU	157.5 mV	50.59 ft	100.00 ml/min
2016-09-19 14:57:30	05:00	6.04 pH	23.17 °C	112.52 µS/cm	5.63 mg/L	0.68 NTU	90.4 mV	50.59 ft	100.00 ml/min
2016-09-19 15:02:30	10:00	6.04 pH	22.50 °C	113.30 µS/cm	5.47 mg/L	0.89 NTU	84.4 mV	50.59 ft	100.00 ml/min
2016-09-19 15:07:30	14:59	6.04 pH	22.59 °C	113.26 µS/cm	5.45 mg/L	0.71 NTU	83.0 mV	50.59 ft	100.00 ml/min
2016-09-19 15:12:30	19:59	6.04 pH	22.37 °C	113.31 µS/cm	5.40 mg/L	0.62 NTU	81.6 mV	50.59 ft	100.00 ml/min
2016-09-19 15:17:30	24:59	6.04 pH	22.30 °C	113.25 µS/cm	5.35 mg/L	0.71 NTU	80.7 mV	50.59 ft	100.00 ml/min
2016-09-19 15:22:30	29:59	6.03 pH	22.25 °C	112.44 µS/cm	5.44 mg/L	0.65 NTU	80.9 mV	50.59 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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GWC-25	
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 01:34:22

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name:</b> GWC-26 <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter:</b> 2 IN <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 FT <b>Top of Screen:</b> 50.02 FT <b>Total Depth:</b> 60.02 FT <b>Initial Depth to Water:</b> 30.61 FT	<b>Pump Type:</b> <b>Tubing Type:</b> polyethylene <b>Tubing Inner Diameter:</b> 0.125 IN <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> 55 FT <b>Estimated Total Volume Pumped:</b> 3000 ML <b>Flow Cell Volume:</b> 90 ML <b>Final Flow Rate:</b> 100 ML_PER_MIN <b>Final Draw Down:</b> 2.06 FT	<b>Instrument Used:</b> SmarTROLL MP <b>Serial Number:</b> 448902
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.3	
2016-09-20 01:34:22	00:00	5.94 pH	26.28 °C	50.34 µS/cm	6.60 mg/L	7.14 NTU	185.0 mV	31.92 ft	100.00 ml/min
2016-09-20 01:39:22	05:00	5.77 pH	21.11 °C	52.60 µS/cm	6.88 mg/L	4.91 NTU	117.6 mV	32.26 ft	100.00 ml/min
2016-09-20 01:44:22	09:59	5.74 pH	20.81 °C	52.19 µS/cm	6.77 mg/L	2.14 NTU	112.4 mV	32.49 ft	100.00 ml/min
2016-09-20 01:49:22	15:00	5.74 pH	20.57 °C	52.05 µS/cm	6.67 mg/L	1.79 NTU	110.9 mV	32.53 ft	100.00 ml/min
2016-09-20 01:54:22	20:00	5.72 pH	20.55 °C	51.71 µS/cm	6.63 mg/L	1.54 NTU	109.5 mV	32.61 ft	100.00 ml/min
2016-09-20 01:59:22	25:00	5.72 pH	20.59 °C	51.44 µS/cm	6.60 mg/L	1.37 NTU	113.1 mV	32.64 ft	100.00 ml/min
2016-09-20 02:04:22	30:00	5.70 pH	20.66 °C	50.73 µS/cm	6.57 mg/L	1.25 NTU	110.5 mV	32.67 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2016-09-19 12:07:52

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-27</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 60.03 FT</b> <b>Total Depth: 70.03 FT</b> <b>Initial Depth to Water: 46.13 FT</b>	<b>Pump Type:</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC:</b> <b>Estimated Total Volume Pumped:</b> <b>3000.001 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 100 ML_PER_MIN</b> <b>Final Draw Down: 1.55 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 418098</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.3	
2016-09-19 12:07:52	00:00	7.01 pH	30.21 °C	60.94 µS/cm	4.67 mg/L	6.66 NTU	143.8 mV	46.93 ft	100.00 ml/min
2016-09-19 12:12:52	05:00	5.51 pH	22.38 °C	37.82 µS/cm	3.15 mg/L	2.37 NTU	111.9 mV	47.07 ft	100.00 ml/min
2016-09-19 12:17:52	10:00	5.48 pH	21.12 °C	37.06 µS/cm	3.13 mg/L	2.02 NTU	102.0 mV	47.35 ft	100.00 ml/min
2016-09-19 12:22:52	15:00	5.48 pH	20.80 °C	37.07 µS/cm	3.24 mg/L	1.98 NTU	95.5 mV	47.38 ft	100.00 ml/min
2016-09-19 12:27:52	20:00	5.50 pH	20.66 °C	37.39 µS/cm	3.44 mg/L	1.27 NTU	93.2 mV	47.49 ft	100.00 ml/min
2016-09-19 12:32:52	25:00	5.50 pH	20.45 °C	37.66 µS/cm	3.62 mg/L	1.34 NTU	92.3 mV	47.62 ft	100.00 ml/min
2016-09-19 12:37:52	30:00	5.51 pH	20.15 °C	37.59 µS/cm	3.78 mg/L	1.57 NTU	90.8 mV	47.68 ft	100.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2016-09-20 09:12:21

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-30</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 40.06 FT</b> <b>Total Depth: 50.06 FT</b> <b>Initial Depth to Water: 29.6 FT</b>	<b>Pump Type: Samplepro</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 45 FT</b> <b>Estimated Total Volume Pumped: 6798.667 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 80 ML_PER_MIN</b> <b>Final Draw Down: 1.73 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 418098</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Weather Conditions:

Sunny

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 0.3	
2016-09-20 09:12:21	00:00	7.40 pH	23.25 °C	78.23 µS/cm	7.24 mg/L	7.85 NTU	180.1 mV	30.31 ft	80.00 ml/min
2016-09-20 09:17:21	05:00	6.19 pH	21.02 °C	53.94 µS/cm	6.42 mg/L	22.59 NTU	127.1 mV	30.52 ft	80.00 ml/min
2016-09-20 09:22:21	09:59	6.09 pH	20.59 °C	53.26 µS/cm	6.36 mg/L	26.32 NTU	114.5 mV	30.85 ft	80.00 ml/min
2016-09-20 09:27:21	15:00	6.07 pH	20.67 °C	53.15 µS/cm	6.37 mg/L	24.26 NTU	109.8 mV	30.88 ft	80.00 ml/min
2016-09-20 09:32:21	20:00	6.06 pH	21.15 °C	52.85 µS/cm	6.34 mg/L	22.40 NTU	107.4 mV	30.91 ft	80.00 ml/min
2016-09-20 09:37:21	25:00	6.06 pH	21.20 °C	52.69 µS/cm	6.31 mg/L	22.49 NTU	104.8 mV	30.93 ft	80.00 ml/min
2016-09-20 09:42:21	30:00	6.06 pH	21.20 °C	52.50 µS/cm	6.30 mg/L	21.01 NTU	102.1 mV	30.95 ft	80.00 ml/min
2016-09-20 09:47:21	35:00	6.07 pH	21.21 °C	52.45 µS/cm	6.33 mg/L	17.11 NTU	105.9 mV	31.05 ft	80.00 ml/min
2016-09-20 09:52:21	40:00	6.06 pH	20.72 °C	52.24 µS/cm	6.23 mg/L	16.79 NTU	97.8 mV	31.11 ft	80.00 ml/min
2016-09-20 09:57:21	45:00	6.06 pH	20.69 °C	52.16 µS/cm	6.19 mg/L	15.66 NTU	96.0 mV	31.20 ft	80.00 ml/min

2016-09-20 10:02:21	49:59	6.06 pH	20.59 °C	52.32 µS/cm	6.17 mg/L	12.56 NTU	96.1 mV	31.24 ft	80.00 ml/min
2016-09-20 10:07:21	55:00	6.06 pH	20.62 °C	52.23 µS/cm	6.15 mg/L	11.68 NTU	95.6 mV	31.27 ft	80.00 ml/min
2016-09-20 10:12:21	01:00:00	6.06 pH	20.76 °C	52.31 µS/cm	6.12 mg/L	9.09 NTU	98.8 mV	31.30 ft	80.00 ml/min
2016-09-20 10:17:21	01:05:00	6.06 pH	20.89 °C	52.16 µS/cm	6.10 mg/L	7.73 NTU	95.9 mV	31.31 ft	80.00 ml/min
2016-09-20 10:22:21	01:10:00	6.06 pH	21.02 °C	52.07 µS/cm	6.08 mg/L	6.72 NTU	94.2 mV	31.31 ft	80.00 ml/min
2016-09-20 10:27:21	01:15:00	6.06 pH	21.10 °C	52.23 µS/cm	6.07 mg/L	5.90 NTU	93.5 mV	31.31 ft	80.00 ml/min
2016-09-20 10:32:20	01:19:59	6.06 pH	21.15 °C	51.96 µS/cm	6.02 mg/L	5.28 NTU	93.8 mV	31.33 ft	80.00 ml/min
2016-09-20 10:37:20	01:24:59	6.08 pH	21.03 °C	52.14 µS/cm	6.07 mg/L	4.73 NTU	92.6 mV	31.33 ft	80.00 ml/min

## Samples

Sample ID:	Description:
GWC-30	







# Low-Flow Test Report:

**Test Date / Time:** 2016-09-15 09:38:08

**Project:** Wansley

**Operator Name:** B Hodges/ K Jurinko/T Martinez/C Gargan

<p><b>Location Name:</b> GWC-34  <b>Latitude:</b>  <b>Longitude:</b>  <b>Well Diameter:</b> 2 IN  <b>Casing Type:</b> PVC  <b>Screen Length:</b> 10 FT  <b>Top of Screen:</b> 38.54 FT  <b>Total Depth:</b> 48.54 FT  <b>Initial Depth to Water:</b></p>	<p><b>Pump Type:</b> Geopump  <b>Tubing Type:</b> polyethylene  <b>Tubing Inner Diameter:</b> 0.125 IN  <b>Tubing Length:</b>  <b>Pump Intake From TOC:</b> 43 FT  <b>Estimated Total Volume Pumped:</b>          6000 ML  <b>Flow Cell Volume:</b> 90 ML  <b>Final Flow Rate:</b> 150 ML_PER_MIN  <b>Final Draw Down:</b> 0.12 FT</p>	<p><b>Instrument Used:</b> SmarTROLL MP  <b>Serial Number:</b> 339100</p>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 09:38:08	00:00	8.45 pH	24.10 °C	347.00 µS/cm	7.96 mg/L	3.45 NTU	182.1 mV	4.90 ft	150.00 ml/min
2016-09-15 09:43:08	05:00	6.63 pH	20.53 °C	58.50 µS/cm	3.86 mg/L	0.15 NTU	138.8 mV	4.87 ft	150.00 ml/min
2016-09-15 09:48:08	10:00	6.40 pH	20.44 °C	57.33 µS/cm	3.83 mg/L	0.38 NTU	130.5 mV	4.87 ft	150.00 ml/min
2016-09-15 09:53:08	14:59	6.31 pH	20.31 °C	56.25 µS/cm	3.98 mg/L	0.03 NTU	128.7 mV	4.87 ft	150.00 ml/min
2016-09-15 09:58:08	20:00	6.18 pH	20.30 °C	54.48 µS/cm	4.26 mg/L	0.10 NTU	133.2 mV	4.87 ft	150.00 ml/min
2016-09-15 10:03:08	25:00	6.07 pH	20.34 °C	53.24 µS/cm	4.54 mg/L	0.10 NTU	136.1 mV	4.87 ft	150.00 ml/min
2016-09-15 10:08:08	30:00	6.00 pH	20.33 °C	52.60 µS/cm	4.77 mg/L	0.06 NTU	138.1 mV	4.87 ft	150.00 ml/min
2016-09-15 10:13:08	35:00	5.98 pH	20.40 °C	52.58 µS/cm	4.83 mg/L	0.10 NTU	136.7 mV	4.87 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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GWC-34	Sampled at 1015 0.10 NTU FD-1(LF) Extra radium
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# Low-Flow Test Report:

Test Date / Time: 2016-09-15 11:55:10

Project: Wansley

Operator Name: B Hodges/ K Jurinko/T Martinez/C Gargan

<b>Location Name: GWC-35</b> <b>Latitude:</b> <b>Longitude:</b> <b>Well Diameter: 2 IN</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 FT</b> <b>Top of Screen: 30.31 FT</b> <b>Total Depth: 40.31 FT</b> <b>Initial Depth to Water:</b>	<b>Pump Type: Geopump</b> <b>Tubing Type: polyethylene</b> <b>Tubing Inner Diameter: 0.125 IN</b> <b>Tubing Length:</b> <b>Pump Intake From TOC: 35 FT</b> <b>Estimated Total Volume Pumped: 4000 ML</b> <b>Flow Cell Volume: 90 ML</b> <b>Final Flow Rate: 200 ML_PER_MIN</b> <b>Final Draw Down: 0.02 FT</b>	<b>Instrument Used: SmarTROLL MP</b> <b>Serial Number: 339100</b>
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## Test Notes:

Golder Associates

Groundwater

Lamotte 2020

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10 %	+/- 5 %	+/- 10 %	+/- 5	+/- 10 %	+/- 5	
2016-09-15 11:55:10	00:00	6.11 pH	30.33 °C	56.19 µS/cm	5.52 mg/L	1.66 NTU	168.6 mV	8.90 ft	200.00 ml/min
2016-09-15 12:00:10	05:00	5.67 pH	22.76 °C	53.46 µS/cm	2.59 mg/L	0.50 NTU	138.9 mV	8.90 ft	200.00 ml/min
2016-09-15 12:05:10	10:00	5.63 pH	21.90 °C	52.54 µS/cm	2.84 mg/L	0.33 NTU	135.3 mV	8.90 ft	200.00 ml/min
2016-09-15 12:10:10	15:00	5.63 pH	21.72 °C	52.48 µS/cm	2.89 mg/L	0.51 NTU	135.3 mV	8.90 ft	200.00 ml/min
2016-09-15 12:15:10	19:59	5.63 pH	21.82 °C	51.85 µS/cm	2.87 mg/L	0.62 NTU	133.0 mV	8.90 ft	200.00 ml/min

## Samples

Sample ID:	Description:
GWC-35	Sampled at 1215 0.62 NTU FD-2(LF)

Product Name: Low-Flow System

Date: 2016-11-11 10:32:57

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 53 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.99 ft  
Screen Length 10 ft  
Depth to Water 29.52 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 0.5765614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.36 in  
Total Volume Pumped 4.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:09:59	900.02	16.25	5.42	21.26	8.01	32.20	7.11	48.20
Last 5	10:14:59	1200.02	16.34	5.42	21.15	5.97	32.42	7.00	46.65
Last 5	10:19:59	1500.02	16.41	5.42	21.10	4.35	32.58	6.91	45.28
Last 5	10:24:59	1800.03	16.39	5.41	20.99	3.67	32.71	6.84	44.60
Last 5	10:29:59	2100.02	16.47	5.40	20.95	3.76	32.81	6.77	44.75
Variance 0			0.08	0.00	-0.06			-0.08	-1.37
Variance 1			-0.02	-0.01	-0.10			-0.07	-0.67
Variance 2			0.08	-0.01	-0.04			-0.08	0.14

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 14:57:48

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 63 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.1 ft  
Screen Length 10 ft  
Depth to Water 48.07 ft

Pumping Information:

Final Pumping Rate 110 mL/min  
Total System Volume 0.6211957 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.6 in  
Total Volume Pumped 8.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:35:19	3600.02	17.50	5.62	74.88	5.75	48.12	7.08	63.03
Last 5	14:40:19	3900.02	17.45	5.62	75.15	5.15	48.12	7.08	62.18
Last 5	14:45:19	4200.03	17.56	5.62	75.10	4.44	48.12	7.07	61.90
Last 5	14:50:19	4500.02	17.49	5.63	75.16	3.47	48.12	7.03	60.91
Last 5	14:55:19	4800.03	17.56	5.63	75.13	4.22	48.12	7.02	60.91
Variance 0			0.11	0.00	-0.06			-0.01	-0.28
Variance 1			-0.08	0.01	0.06			-0.04	-0.99
Variance 2			0.07	-0.00	-0.02			-0.02	-0.01

Notes

Weather is sunny. Temp is 64F. Sample at 1500.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 11:43:20

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 40.6 ft  
Screen Length 10 ft  
Depth to Water 29.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5185369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.36 in  
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:21:10	2700.02	15.87	6.23	285.50	5.80	29.36	0.25	5.86
Last 5	11:26:10	3000.02	15.90	6.21	280.12	5.29	29.36	0.27	8.59
Last 5	11:31:10	3300.03	15.94	6.21	280.63	4.78	29.36	0.27	8.75
Last 5	11:36:10	3600.02	15.94	6.20	278.00	4.24	29.36	0.29	10.13
Last 5	11:41:10	3900.02	15.93	6.19	274.41	4.42	29.36	0.34	11.45
Variance 0			0.05	-0.00	0.51			0.00	0.17
Variance 1			-0.01	-0.01	-2.64			0.02	1.38
Variance 2			-0.00	-0.01	-3.58			0.05	1.32

Notes

Weather is sunny. Temp is 56F. Sample at 1145.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 12:07:05

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 48 ft

Pump placement from TOC 40 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.8 ft  
Screen Length 10 ft  
Depth to Water 28.56 ft

Pumping Information:

Final Pumping Rate 110 mL/min  
Total System Volume 0.5542443 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.36 in  
Total Volume Pumped 4.95 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:44:06	1500.02	19.40	6.01	63.36	3.63	30.38	2.24	44.90
Last 5	11:49:06	1800.02	19.34	6.01	63.07	4.42	30.54	2.27	44.35
Last 5	11:54:06	2100.02	18.97	6.01	63.20	3.48	30.71	2.32	43.87
Last 5	11:59:06	2400.02	18.92	6.00	63.27	3.39	30.88	2.32	43.38
Last 5	12:04:05	2699.96	18.94	6.00	63.31	3.71	31.01	2.30	43.03
Variance 0			-0.37	-0.00	0.13			0.05	-0.48
Variance 1			-0.05	-0.00	0.07			-0.00	-0.49
Variance 2			0.02	-0.00	0.04			-0.02	-0.34

Notes

Sample taken at 1210. Weather sunny and 65 F.

Grab Samples



Product Name: Low-Flow System

Date: 2016-11-15 17:04:36

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 33° 24' 38.35"  
Longitude -85° -2' -9.35"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 37 ft

Pump placement from TOC 34 ft

Well Information:

Well ID GWC-5  
Well diameter 2 in  
Well Total Depth 40.7 ft  
Screen Length 10 ft  
Depth to Water 25.70 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3751467 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 15.36 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:27:48	3000.01	19.53	6.44	268.77	3.13	26.89	0.98	54.89
Last 5	16:32:48	3300.01	19.07	6.39	260.11	2.47	26.92	1.06	53.74
Last 5	16:37:48	3600.01	18.79	6.30	252.27	2.23	26.95	1.11	54.63
Last 5	16:42:48	3900.01	18.55	6.31	247.51	1.75	26.96	1.12	52.90
Last 5	16:47:48	4200.01	18.42	6.29	243.47	1.79	26.98	1.19	55.22
Variance 0			-0.27	-0.08	-7.84			0.05	0.88
Variance 1			-0.24	0.01	-4.77			0.01	-1.72
Variance 2			-0.13	-0.02	-4.04			0.07	2.32

Notes

Parameters stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 15:37, stop purge @ 16:47; Purge rate constant throughout @ 100 ml/min; Drawdown slowed @ around 16:12 after purging 3.5 L; pH and spec. cond. started dropping @ 16:12; Sample time is 16:50 at a sample rate of 100 ml/min; TD measured at 36.75 ft btoc; Weather is scattered clouds, 64 degrees F

Grab Samples



Product Name: Low-Flow System

Date: 2016-11-16 10:11:00

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 32 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 31.1 ft  
Screen Length 10 ft  
Depth to Water 22.14 ft

Pumping Information:

Final Pumping Rate 210 mL/min  
Total System Volume 0.3528295 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.16 in  
Total Volume Pumped 4.65 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:13:53	300.14	15.21	7.18	220.33	0.38	22.22	0.84	100.50
Last 5	09:18:53	600.02	17.10	6.15	212.11	0.20	22.27	0.36	92.91
Last 5	09:23:53	900.02	17.63	6.05	210.71	0.17	22.29	0.22	91.53
Last 5	09:28:53	1200.02	17.91	6.03	210.33	0.24	22.31	0.17	91.76
Last 5	09:33:53	1500.02	18.07	5.99	209.37	0.09	22.32	0.24	93.17
Variance 0			0.54	-0.10	-1.40			-0.14	-1.37
Variance 1			0.28	-0.02	-0.38			-0.05	0.23
Variance 2			0.17	-0.04	-0.96			0.06	1.41

Notes

Parameters stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 9:08, stop purge @ 9:33; Initial purge rate of 150 ml/min was increased to 210 ml/min @ 9:18; Sample time is 9:40 at a sample rate of 210 ml/min; Second Radium bottle collected; TD measured at 30.67 ft btoc; Weather is sunny, 45 degrees F

Grab Samples  
GWC-6  
Groundwater sample



Product Name: Low-Flow System

Date: 2016-11-16 12:13:56

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 33° 24' 38.35"  
Longitude -85° -2' -9.36"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 30 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 25.9 ft  
Screen Length 10 ft  
Depth to Water 13.13 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3439027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 23.16 in  
Total Volume Pumped 3.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:54:53	600.02	21.11	6.34	838.13	0.09	13.97	0.43	107.33
Last 5	10:59:53	900.02	21.03	6.34	838.17	0.25	14.33	0.40	104.46
Last 5	11:04:53	1200.02	21.16	6.34	840.13	0.35	14.60	0.36	102.58
Last 5	11:09:53	1500.02	21.33	6.34	837.74	0.70	14.85	0.32	100.85
Last 5	11:14:53	1800.02	21.33	6.35	833.15	0.53	15.06	0.29	99.11
Variance 0			0.14	0.00	1.96			-0.05	-1.88
Variance 1			0.17	0.00	-2.39			-0.04	-1.73
Variance 2			-0.00	0.00	-4.59			-0.04	-1.74

Notes

Parameters stable after three consecutive readings and turbidity < 5 NTU; Drawdown over last three readings was 0.46 ft (over 15 mins), based on purge rate well recharge was calculated being 80 ml/min (drawdown would've equaled 2.43 ft after 15 mins with no recharge); Start purge @ 10:45, stop purge @ 11:15; Initial purge rate of 110 ml/min was reduced to 100 ml/min @ 10:55 due to drawdown; Sample time is 11:20 at a sample rate of 100 ml/min; TD measured at 26.20 ft btoc; Weather is sunny, 70 degrees F

Grab Samples  
GWC-7  
Groundwater sample

Product Name: Low-Flow System

Date: 2016-11-16 11:33:45

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 22 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20 ft  
Screen Length 10 ft  
Depth to Water 10.36 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.4381953 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 75.6 in  
Total Volume Pumped 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:11:25	1500.02	20.50	5.89	354.34	2.98	14.64	0.15	76.68
Last 5	11:16:25	1800.02	20.19	5.94	383.72	3.75	15.72	0.10	65.70
Last 5	11:21:25	2100.02	20.54	5.93	366.53	1.92	16.27	0.17	70.06
Last 5	11:26:25	2400.02	20.70	5.96	364.70	1.58	16.53	0.21	73.64
Last 5	11:31:25	2699.98	20.79	5.96	364.83	0.78	16.66	0.25	74.22
Variance 0			0.36	-0.01	-17.20			0.06	4.36
Variance 1			0.16	0.03	-1.83			0.05	3.58
Variance 2			0.08	-0.00	0.13			0.04	0.58

Notes

Purging 3 well volumes. Will decrease to .100L/min after  
Parameters stable. Weather:warm sunny.

Grab Samples

GWC-8  
Sampling at 1134

Product Name: Low-Flow System

Date: 2016-11-16 10:05:32

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GW Sampling  
Site Name Plant Wansley - AP  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 18 ft

Pump placement from TOC 16 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.4 ft  
Screen Length 10 ft  
Depth to Water 7.80 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.3703416 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:41:57	600.01	20.75	5.77	478.88	4.43	8.12	0.24	-5.39
Last 5	09:46:57	900.01	20.93	5.77	478.60	1.12	8.15	0.21	-6.01
Last 5	09:51:57	1200.00	21.15	5.77	477.27	1.09	8.19	0.19	-5.36
Last 5	09:56:57	1500.00	21.33	5.77	476.59	0.71	8.22	0.19	-4.92
Last 5	10:01:57	1800.00	21.48	5.77	475.43	--	--	0.17	-4.05
Variance 0			0.22	-0.00	-1.33			-0.01	0.65
Variance 1			0.18	0.00	-0.68			-0.01	0.44
Variance 2			0.15	0.00	-1.16			-0.02	0.87

Notes

Clear and 50 degrees. Parameters stable @ 0958. Collect GWC-9 at 1005. Collect Dup-2 from this well. Purging and sampling done at 150 ml/min

Grab Samples

GWC-9  
Primary



Product Name: Low-Flow System

Date: 2016-11-17 10:02:41

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 30 ft

Pump placement from TOC 18 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 21.71 ft  
Screen Length 10 ft  
Depth to Water 12.89 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3439027 L  
Calculated Sample Rate 180 sec  
Stabilization Drawdown 22.68 in  
Total Volume Pumped 2.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:30:12	900.02	18.23	5.94	360.41	6.92	13.84	4.56	83.09
Last 5	09:33:12	1080.02	18.46	5.96	359.54	7.14	14.01	4.56	80.69
Last 5	09:36:12	1260.02	18.71	5.96	359.39	6.89	14.28	4.46	79.00
Last 5	09:39:12	1440.02	18.84	5.98	356.63	6.99	14.49	4.37	76.69
Last 5	09:42:12	1620.02	19.01	5.95	354.49	7.07	14.78	4.17	76.51
Variance 0			0.25	0.00	-0.15			-0.10	-1.69
Variance 1			0.13	0.02	-2.76			-0.09	-2.32
Variance 2			0.18	-0.03	-2.14			-0.20	-0.17

Notes

Resume purge from evacuating well the previous day; Start purge @ 9:15, stop purge @ 9:42; Sample time is 9:45 at a sample rate of 100 ml/min; Turbidity > 5 NTU (7.07 NTU) at sample time, but was lower than initial of 14.8 NTU @ 9:18; Decided to sample well based on limited amount of water above pump intake depth; Weather is sunny, 54 degrees F

Grab Samples  
GWC-10  
Groundwater sample

Product Name: Low-Flow System

Date: 2016-11-16 14:17:22

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 32 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 24.1 ft  
Screen Length 10 ft  
Depth to Water 12.78 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3528295 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 107.04 in  
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:43:46	2400.02	21.24	6.01	327.11	10.25	18.55	0.63	89.31
Last 5	13:48:46	2700.02	21.05	6.02	332.07	4.32	19.35	0.42	91.58
Last 5	13:53:46	3000.01	21.17	6.02	347.51	12.10	20.16	0.91	87.21
Last 5	13:58:46	3300.02	21.19	6.08	336.99	2.86	20.91	0.76	87.46
Last 5	14:03:46	3600.01	21.11	6.03	275.11	0.00	21.71	1.37	86.81
Variance 0			0.12	-0.01	15.44			0.49	-4.37
Variance 1			0.02	0.06	-10.52			-0.14	0.25
Variance 2			-0.08	-0.05	-61.88			0.61	-0.65

Notes

Well purged dry, wait for recharge to sample; Recharge rate is around 31 ml/min (0.05 ft/min); Start purge @ 13:03, stop purge @ 14:03; Initial purge rate of 100 ml/min was increased to 200 ml/min @ 13:18; to 250 ml/min @ 13:23; and reduced to 200 ml/min @ 13:33; TD measured when we'll went dry at 21.70 ft btoc; Weather is sunny, 74 degrees F

Grab Samples





# GROUNDWATER SAMPLING LOG SHEET

Client: GPC Project No.: \_\_\_\_\_ Sampling Date: 11-16-16  
 Site: Wenatchee Location: Gypsum Sampler's Name: MR  
 Well ID: GWC-11 Pump Type/Model: Alexis Per Gypsum Sample Collection Time: 1428  
 Total Depth (ft): 18.2 Tubing Material: LDPE Sample Purge Rate (L/min): .100  
 Depth to Water (ft): 7.55 Pump Intake Depth (ft): ~13 Sample ID: GWC-11  
 Well Diameter (in): 2 Start/Stop Purge Time: 1326 Laboratory Analyses: see LOC's  
 Well Volume (gal) = 0.041d<sup>2</sup>h: 1.7 Purge Rate (L/min): .500 -> .100 L/min  
 Well Volume (L) = gal \* 3.785: 6.4 Total Purge Volume (L): \_\_\_\_\_  
 d = well diameter (inches) h = length of water column (feet) 3-min volumes Purge Method: Low-Flow ~~Well Volume~~ Other: \_\_\_\_\_ QA/QC Collected? No  
 Well Type: Flush Stick Up Sampling Method: Pump Discharge Other: \_\_\_\_\_ QA/QC I.D. \_\_\_\_\_  
 Well Lock: Yes No \_\_\_\_\_  
 Well Botted: Yes No Bolts Needed: No  
 Well Cap Condition: Good Replace Other \_\_\_\_\_ All sample containers requiring chemical preservation properly preserved prior to demob from well? Yes No \_\_\_\_\_  
 Well Tag Present: Yes \_\_\_\_\_ No \_\_\_\_\_ Water in Vault: Yes \_\_\_\_\_ No 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 <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1339	22.53	457.45	0.20	5.96	-37.4	1.8	500	6.4	7.86	1st wv
1352	22.44	461.99	0.13	6.00	-44.9	1.56	↓	12.8	7.88	2nd wv
1405	22.42	462.98	0.11	6.02	-48.4	2.04	↓	19.4	7.88	3rd wv DEC PR to .100 L/min
1411	22.8	452.67	0.16	6.04	-47.8	2.99	1200	19.9	7.88	
1416	22.71	454.67	0.18	6.04	-47.4	2.77		20.4	7.72	
1421	22.72	456.42	0.19	6.04	-47.4	2.52		20.9	7.70	
TD-18.18										
<b>Stabilizing Criteria<sup>4,5</sup></b>		+/- 5%	0.2 mg/L or 10% whichever is greater <sup>(8)</sup>	+/- 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: 2016-11-16 16:51:57

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 43 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.6 ft  
Screen Length 10 ft  
Depth to Water 27.22 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4019272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 20.76 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:31:10	1200.02	21.98	6.92	278.60	0.75	28.56	0.83	29.14
Last 5	15:36:10	1500.03	21.93	6.91	278.15	0.59	28.72	0.80	21.88
Last 5	15:41:10	1800.02	21.81	6.97	278.93	0.50	28.85	0.80	15.64
Last 5	15:46:10	2100.02	21.75	6.99	277.44	0.80	28.94	0.79	10.18
Last 5	15:51:10	2400.02	21.57	6.99	277.73	0.47	28.95	0.86	4.55
Variance 0			-0.12	0.05	0.78			0.00	-6.24
Variance 1			-0.06	0.02	-1.49			-0.02	-5.45
Variance 2			-0.18	0.01	0.29			0.07	-5.64

Notes

Parameters stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 15:11, stop purge at 15:51; Initial purge rate of 100 ml/min maintained throughout; Sample time is 15:55 at a sample rate of 100 ml/min; TD measured at 40.65 ft btoc; Weather is sunny, 74 degrees F

Grab Samples

GWC-12  
Groundwater sample

Product Name: Low-Flow System

Date: 2016-11-17 09:07:31

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC Plant Wansley  
Site Name Plant Wansley-GP  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 450141  
Turbidity Make/Model Hannah

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.175 in  
Tubing Length 93 ft

Pump placement from TOC 85.4 ft

Well Information:

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 90.4 ft  
Screen Length 10 ft  
Depth to Water 6.34 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.7798749 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.04 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 50
Last 5	08:45:30	600.03	17.68	6.89	58.88	0.82	7.51	4.59	78.03
Last 5	08:50:30	900.03	18.03	6.78	58.18	0.55	7.51	4.98	75.42
Last 5	08:55:30	1200.02	18.01	6.71	57.60	1.09	7.51	5.12	74.28
Last 5	09:00:30	1500.02	18.13	6.66	57.54	0.74	7.51	5.12	74.61
Last 5	09:05:30	1800.03	18.12	6.63	58.23	1.49	7.51	5.07	74.44
Variance 0			-0.02	-0.07	-0.58			0.15	-1.15
Variance 1			0.11	-0.05	-0.06			-0.01	0.33
Variance 2			-0.00	-0.03	0.69			-0.05	-0.16

Notes

Weather is sunny. Temperature is 60F. Sample taken at 0910.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-17 10:45:20

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC Plant Wansley  
Site Name Plant Wansley-GP  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 450141  
Turbidity Make/Model Hannah

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.175 in  
Tubing Length 30 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 24.6 ft  
Screen Length 10 ft  
Depth to Water 10.38 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4818951 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	10:18:00	600.03	19.61	5.06	620.97	1.32	10.45	0.31	173.44
Last 5	10:28:00	1200.03	20.04	5.08	613.73	3.90	10.45	0.82	179.53
Last 5	10:33:00	1500.02	20.29	5.07	599.31	2.37	10.45	0.20	166.61
Last 5	10:38:00	1800.03	20.48	5.07	603.87	1.87	10.45	0.16	162.85
Last 5	10:43:00	2100.03	20.66	5.05	607.89	1.91	10.45	0.13	169.26
Variance 0			0.25	-0.01	-14.42			-0.62	-12.92
Variance 1			0.19	-0.01	4.56			-0.03	-3.76
Variance 2			0.18	-0.01	4.02			-0.03	6.41

Notes

Weather is sunny. Temperature is 70F. SmarTroll missed reading at 1023. Sample taken at 1048.

Grab Samples



Product Name: Low-Flow System

Date: 2016-11-17 11:50:48

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 57 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-15  
Well diameter 2 in  
Well Total Depth 56 ft  
Screen Length 10 ft  
Depth to Water 7.75 ft

Pumping Information:

Final Pumping Rate 210 mL/min  
Total System Volume 0.4644151 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 4.15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:12:08	300.09	20.62	6.63	87.24	7.78	7.84	3.97	71.51
Last 5	11:17:07	600.02	19.46	6.60	88.33	4.62	7.87	3.96	67.28
Last 5	11:22:07	900.02	19.32	6.56	88.23	3.87	7.87	3.95	68.19
Last 5	11:27:07	1200.02	19.40	6.54	88.41	2.24	7.87	3.94	68.50
Last 5									
Variance 0			-1.16	-0.03	1.08			-0.01	-4.23
Variance 1			-0.14	-0.04	-0.10			-0.00	0.91
Variance 2			0.08	-0.02	0.18			-0.01	0.31

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 11:07, stop purge @ 11:27; Sample time is 11:30 at a sample rate of 210 ml/min; TD measured at 50.45 ft btoc; Weather is sunny, 70 degrees F

Grab Samples

GWC-15  
Groundwater sample

Product Name: Low-Flow System

Date: 2016-11-17 10:08:45

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name Plant Wansley  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 28 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-16  
Well diameter 2 in  
Well Total Depth 27 ft  
Screen Length 10 ft  
Depth to Water 13.25 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4649758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 5		+/- 0.3	+/- 10
Last 5	09:44:45	1500.02	17.22	6.11	102.24	0.97	13.31	4.03	45.15
Last 5	09:49:45	1800.02	17.27	6.11	101.13	0.84	13.32	4.01	44.20
Last 5	09:54:45	2100.02	17.30	6.11	101.08	0.73	13.31	4.00	43.73
Last 5	09:59:45	2400.02	17.35	6.10	100.88	0.60	13.31	3.98	43.39
Last 5	10:04:46	2700.39	17.28	5.90	0.00	--	--	9.41	22.90
Variance 0			0.03	-0.00	-0.05			-0.01	-0.48
Variance 1			0.05	-0.00	-0.20			-0.02	-0.34
Variance 2			-0.07	-0.20	-100.88			5.43	-20.49

Notes

Clear 55 degrees. Sample at 1010. Well purged and sampled at 200 ml/min. Parameters stable at 0958.

Grab Samples

GWC-16  
Primary collected at 1010

Product Name: Low-Flow System

Date: 2016-11-17 12:26:22

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC Plant Wansley  
Site Name Plant Wansley-GP  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 450141  
Turbidity Make/Model Hannah

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.175 in  
Tubing Length 51 ft

Pump placement from TOC 43 ft

Well Information:

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.3 ft  
Screen Length 10 ft  
Depth to Water 25.4 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5812218 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19.44 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	12:04:03	1199.97	21.29	6.34	105.57	1.98	27.02	2.45	91.16
Last 5	12:09:03	1499.97	21.20	6.27	105.65	1.37	27.02	2.23	91.16
Last 5	12:14:03	1799.97	21.46	6.13	109.91	1.44	27.02	2.67	97.35
Last 5	12:19:03	2099.97	21.64	6.10	110.10	1.42	27.02	2.86	97.06
Last 5	12:24:03	2399.97	21.51	6.11	109.17	1.75	27.02	2.87	95.13
Variance 0			0.26	-0.15	4.26			0.44	6.18
Variance 1			0.18	-0.02	0.19			0.19	-0.29
Variance 2			-0.13	0.00	-0.93			0.00	-1.93

Notes

Temperature is 70F. Weather is sunny. Take sample at 1228.

Grab Samples



Product Name: Low-Flow System

Date: 2016-11-17 13:38:20

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 38.6 ft  
Screen Length 10 ft  
Depth to Water 17.70 ft

Pumping Information:

Final Pumping Rate 130 mL/min  
Total System Volume 0.3885369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.04 in  
Total Volume Pumped 4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:42:08	600.02	19.19	6.02	73.53	2.81	18.53	1.03	76.29
Last 5	12:47:08	900.02	19.11	5.98	73.56	1.86	18.57	0.97	77.27
Last 5	12:52:08	1200.02	19.30	5.98	72.99	2.56	18.60	1.03	78.42
Last 5	12:57:08	1500.02	19.49	5.98	72.91	1.29	18.61	1.20	78.77
Last 5	13:02:08	1800.02	19.46	5.97	72.98	1.30	18.62	1.19	80.56
Variance 0			0.19	-0.00	-0.56			0.06	1.15
Variance 1			0.19	0.00	-0.08			0.18	0.35
Variance 2			-0.03	-0.01	0.07			-0.02	1.78

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 12:32, stop purge @ 13:02; Initial purge rate of 180 ml/min reduced to 150 ml/min @ 12:37 and to 130 ml/min @ 12:42; Sample time is 13:05 with a sample rate of 130 ml/min; TD measured at 37.50 ft btoc; Weather is sunny, 75 degrees F

Grab Samples  
GEC-19  
Groundwater sample



### GROUNDWATER SAMPLING LOG SHEET

Client: GPC Project No.: \_\_\_\_\_ Sampling Date: 11-17-16  
 Site: Wendy Location: Exp. 5-1 Sampler's Name: M. R. J. S.  
 Well ID: GW-20 Pump Type/Model: Per Sample Collection Time: \_\_\_\_\_  
 Total Depth (ft): 71.5 Tubing Material: UPC Sample Purge Rate (L/min): 200  
 Depth to Water (ft): 14.04 Pump Intake Depth (ft): 700 Sample ID: GW-20  
 Well Diameter (in): 2 Start/Stop Purge Time: 1333 Laboratory Analyses: see COP  
 Well Volume (gal) = 0.041d<sup>2</sup>h: \_\_\_\_\_ Purge Rate (L/min): 200 Total Purge Volume (L): \_\_\_\_\_  
 Well Volume (L) = gal \* 3.785: \_\_\_\_\_ Purge Method: Low Flow Well Volume Other: \_\_\_\_\_ QA/QC Collected? No  
 d = well diameter (inches) h = length of water column (feet) Sampling Method: Pump Discharge Other: \_\_\_\_\_ QA/QC I.D. \_\_\_\_\_  
 Well Type: Flush  Stick Up   
 Well Lock:  Yes  No  
 Well Bolted:  Yes  No Bolts Needed: No  
 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 <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1338	20.68	114.79	1.14	6.35	100.60	676	200	1	14.21	
1343	19.90	116.29	1.24	6.53	96.4	57		2	14.23	
1348	20.23	116.62	1.14	6.33	93.1	81.1		3	14.24	
1353	20.16	117.34	1.07	6.33	96.0	112		4	14.24	
1358	20.37	117.59	1.03	6.32	87.60	90.7		5	14.25	
1403	20.43	116.80	1.03	6.32	84.7	97.4		6	14.26	
1408	20.70	115.96	1.06	6.33	82.2	79.6		7	14.28	
1413	20.89	116.71	1.08	6.32	81.50	61.7		8	14.28	
1418	21.81	114.85	1.08	6.33	82.2	56.7		9	14.29	
1423	21.31	113.09	1.13	6.33	80.7	52.5		10	14.29	
1428	22.17	112.95	1.16	6.37	81.6	28.5		11	14.30	
1433	22.17	113.7	1.16	6.36	82.1	21.6		12	14.30	
1438	21.46	112.81	1.17	6.35	81.8	20.8		13	14.29	
1443	21.85	114.27	1.19	6.33	80.9	29.3		14	14.29	
1448	21.91	113.41	1.17	6.34	81.3	26.6		15	14.29	
1453	21.32	112.82	1.19	6.34	81.8	22.5		16	14.29	
1458	21.42	112.58	1.21	6.35	82.0	20.4		17	14.29	
1503	21.15	112.64	1.21	6.34	82.4	17.1		18	14.28	
1508	21.14	112.59	1.23	6.35	82.7	13.7		19	14.28	
1513	21.12	112.63	1.23	6.35	83.0	8.8		20	14.28	
1518	21.17	112.5	1.23	6.34	83.6	7.68		21	14.28	
1523	20.92	112.47	1.25	6.35	84.0	6.97		22	14.28	
Stabilizing Criteria <sup>4,5</sup>		+/- 5%	0.2 mg/L or 10% whichever is greater <sup>6</sup>	+/- 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: 2016-11-17 14:24:41

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC Plant Wansley  
Site Name Plant Wansley-GP  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 450141  
Turbidity Make/Model Hannah

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.175 in  
Tubing Length 41 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.3 ft  
Screen Length 10 ft  
Depth to Water 23.50 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5339233 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 32.4 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	13:52:35	600.03	18.26	5.58	47.52	1.20	25.56	0.47	131.54
Last 5	13:57:35	900.02	18.57	5.62	47.94	1.30	25.88	0.44	126.15
Last 5	14:02:34	1199.97	18.48	5.59	47.48	1.28	26.02	0.39	123.85
Last 5	14:07:34	1499.97	18.44	5.58	47.50	1.04	26.13	0.38	120.05
Last 5	14:12:34	1799.97	18.48	5.56	47.37	1.01	26.20	0.36	118.78
Variance 0			-0.09	-0.04	-0.46			-0.05	-2.29
Variance 1			-0.04	-0.01	0.03			-0.01	-3.80
Variance 2			0.04	-0.02	-0.13			-0.02	-1.27

Notes

Purge rate lowered to 0.15L/min at 1357 due to drawdown. Weather is sunny. Temperature is 76F. Sample at 1420.

Grab Samples



### GROUNDWATER SAMPLING LOG SHEET

Client: GPC  
 Site: PLANT WANSLEY  
 Well ID: GWC-22  
 Total Depth (ft)<sup>1</sup>: (82.2) 77.59  
 Depth to Water (ft): 30.86  
 Well Diameter (in): 2.00  
 Well Volume (gal) = 0.041d<sup>2</sup>h: 8.37  
 Well Volume (L) = gal \* 3.785: 31.7

Project No.: 0372406  
 Location: GYPSON LANDFILL  
 Pump Type/Model: BLADDER/MPSO CONTR.  
 Tubing Material: LDPE, Silicone  
 Pump Intake Depth (ft): 76.0  
 Start/Stop Purge Time: 15:17/15:57  
 Purge Rate (L/min)<sup>2</sup>: 0.25/0.2  
 Total Purge Volume (L): 8.55

Sampling Date: 11-17-2016  
 Sampler's Name: A. SHOREPETS  
 Sample Collection Time: 16:00  
 Sample Purge Rate (L/min)<sup>3</sup>: 0.2  
 Sample ID: GWC-22  
 Laboratory Analyses: SEE COC.

d = well diameter (inches) h = length of water column (feet)  
 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

Purge Method: Low-Flow Well Volume Other: \_\_\_\_\_  
 Sampling Method: Pump Discharge Other: \_\_\_\_\_

QA/QC Collected? NO  
 QA/QC I.D. NA

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 (%) (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
15:22	18.17	135.50	3.35	6.43	98.30	16.9	250	1.25	31.64	
15:27	17.80	136.80	3.20	6.45	89.60	17.9	250	2.50	31.70	Lower purge rate to 200ml/min
15:32	17.63	132.90	3.33	6.48	87.60	8.59	200	3.50	31.70	
15:37	17.56	132.00	3.40	6.49	87.90	6.60	200	4.50	31.71	
15:42	17.64	132.00	3.41	6.47	88.70	5.60	200	5.50	31.74	
15:47	17.63	130.60	3.39	6.46	89.20	4.43	210	6.55	31.76	Increase purge rate to 210ml/min.
15:52	17.59	131.70	3.42	6.49	87.40	4.38	200	7.55	31.76	Decrease purge rate to 200ml/min.
15:57	17.57	131.80	3.44	6.52	86.00	3.34	200	8.55	31.78	
PARAMETERS STABLE, WELL CAN BE SAMPLED.										
Stabilizing Criteria <sup>4,5</sup>		6.7 +/- 5% ✓	0.2 mg/L or 10% whichever is greater (9) ✓	+/- 0.2 unit ✓		<5 NTUs ✓	>100 mL < 250 mL ✓	>3L ✓	<0.33 ft ✓	

Purge Log QA/QC'd By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Purge Log QA/QC'd By: \_\_\_\_\_  
 Date: \_\_\_\_\_

- (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)

Product Name: Low-Flow System

Date: 2016-11-18 10:50:08

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 33° 24' 38.62"  
Longitude -85° -2' -8.66"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 70 ft

Pump placement from TOC 61 ft

Well Information:

Well ID GWC-23  
Well diameter 2 in  
Well Total Depth 68.1 ft  
Screen Length 10 ft  
Depth to Water 41.37 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.6524396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 10.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:52:11	2101.02	17.06	6.23	45.23	6.06	40.79	10.72	91.43
Last 5	09:57:12	2402.02	17.25	6.23	45.14	6.56	40.77	11.19	93.39
Last 5	10:02:12	2702.02	17.54	6.28	44.85	3.24	40.76	11.13	92.93
Last 5	10:07:12	3002.02	17.45	6.31	44.55	3.31	40.74	11.15	93.62
Last 5	10:12:12	3302.02	17.31	6.32	44.56	3.24	40.80	11.11	94.91
Variance 0			0.30	0.05	-0.28			-0.06	-0.46
Variance 1			-0.10	0.03	-0.30			0.02	0.69
Variance 2			-0.14	0.01	0.01			-0.03	1.29

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 9:17, stop purge @ 10:12; Initial purge rate of 100 ml/min was increased to 210 ml/min @ 9:22, and reduced to 200 ml/min @ 9:37; Sample time is 10:20 with a sample rate of 200 ml/min; No water in flow cell for first reading @ 9:22; TD measured at 67.29 ft btoc; Weather is sunny, 60 degrees F

Grab Samples  
GWC-23  
Groundwater sample

Product Name: Low-Flow System

Date: 2016-11-18 10:01:33

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 53 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-24 continued  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 49.86 ft

Pumping Information:

Final Pumping Rate 0.1 mL/min  
Total System Volume 0.5765614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:00:25	300.09	12.43	5.62	47.29	0.98	49.96	8.95	163.86
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

Taking 1 reading then sample  
Last reading before I sample.

Grab Samples

GWC-24  
1002

Product Name: Low-Flow System

Date: 2016-11-18 09:00:35

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 53 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 48.45 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.5765614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.6 in  
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	08:53:03	300.19	16.20	6.77	43.04	1.38	49.67	7.98	128.23
Last 5	08:58:03	600.02	15.92	6.13	43.35	2.43	0.00	8.35	135.95
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.27	-0.64	0.31			0.37	7.72
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Purge 3 well volumes decrease purge to .100L/min  
Well purged dry. Will come back to take one reading and sample.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-15 10:25:19

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 63 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 61.02 ft  
Screen Length 10 ft  
Depth to Water 51.04 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.6211957 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 57.12 in  
Total Volume Pumped 28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:02:01	3901.02	16.24	6.48	127.63	2.13	--	2.15	86.10
Last 5	10:07:01	4201.02	16.27	6.42	127.91	1.50	--	3.74	88.16
Last 5	10:12:02	4502.02	16.13	6.39	126.88	1.55	--	5.47	90.07
Last 5	10:17:02	4802.02	16.20	6.37	126.56	1.27	--	5.31	90.25
Last 5	10:22:02	5102.03	16.20	6.35	126.57	1.16	--	6.62	92.18
Variance 0			-0.13	-0.04	-1.03			1.73	1.91
Variance 1			0.07	-0.02	-0.32			-0.17	0.18
Variance 2			-0.00	-0.02	0.01			1.31	1.93

Notes

Water level within screen. Purging 3 well volumes  
Parameters stable. Water level was below pump (under56) and didn't want to lower pump which would disturb turbidity. Weather: chilly, sunny

Grab Samples

GWC-25  
Sampling at 1026

Product Name: Low-Flow System

Date: 2016-11-14 14:15:00

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 63 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.4 ft  
Screen Length 10 ft  
Depth to Water 33.03 ft

Pumping Information:

Final Pumping Rate 0.2 mL/min  
Total System Volume 0.6211957 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 20.04 in  
Total Volume Pumped 23 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:50:18	10502.04	16.97	5.63	48.64	10.56	34.69	7.12	43.50
Last 5	13:55:18	10802.04	16.95	5.63	48.53	9.23	34.68	7.12	43.41
Last 5	14:00:18	11102.04	16.98	5.64	48.33	9.80	34.68	7.13	43.00
Last 5	14:05:18	11402.04	17.01	5.63	48.43	9.02	34.70	7.11	43.06
Last 5	14:10:13	11697.16	16.97	5.64	48.36	0.00	34.70	7.12	42.94
Variance 0			0.02	0.01	-0.20			0.01	-0.41
Variance 1			0.03	-0.00	0.10			-0.02	0.06
Variance 2			-0.03	0.00	-0.07			0.00	-0.13

Notes

Parameters stable. Purged for 3 hours and turbidity above 5 but under 10. Sampling. Weather: sunny and chilly.

Grab Samples

GWC-26  
Sampling at 1416



Product Name: Low-Flow System

Date: 2016-11-11 13:21:00

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type QED  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 73 ft

Pump placement from TOC 65 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.8 ft  
Screen Length 10 ft  
Depth to Water 47.73 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.66583 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 36.84 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:57:39	1800.02	16.84	5.73	56.30	1.46	51.51	3.64	19.93
Last 5	13:02:39	2100.02	16.87	5.79	64.31	1.01	51.61	3.62	17.58
Last 5	13:07:39	2400.02	16.85	5.87	72.13	0.94	51.70	3.48	15.19
Last 5	13:12:39	2700.03	16.92	5.88	73.46	1.11	51.75	3.45	15.63
Last 5	13:17:39	3000.03	16.92	5.88	72.11	0.88	51.80	3.51	17.07
Variance 0			-0.01	0.07	7.82			-0.14	-2.39
Variance 1			0.06	0.02	1.33			-0.03	0.44
Variance 2			0.01	-0.00	-1.35			0.06	1.43

Notes

Weather sunny. Temp 60F. Sample at 1325.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-14 15:25:55

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 33° 24' 38.19"  
Longitude -85° -2' -9.57"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder  
Tubing Type LDPE  
Tubing Diameter 0.25 in  
Tubing Length 50 ft

Pump placement from TOC 43.8 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.6 ft  
Screen Length 10 ft  
Depth to Water 31.2 ft

Pumping Information:

Final Pumping Rate 105 mL/min  
Total System Volume 0.8226365 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.24 in  
Total Volume Pumped 6.64 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:37:27	2400.02	19.35	5.99	53.08	6.10	32.69	5.47	112.46
Last 5	14:42:27	2700.02	19.36	5.91	53.14	5.29	32.70	5.42	116.24
Last 5	14:47:27	3000.02	19.24	5.93	53.10	4.63	32.71	5.38	116.90
Last 5	14:52:27	3300.01	19.19	5.93	52.98	3.51	32.71	5.36	116.25
Last 5	14:57:27	3600.00	19.13	5.93	53.09	3.56	32.72	5.36	115.85
Variance 0			-0.12	0.02	-0.04			-0.04	0.67
Variance 1			-0.05	-0.00	-0.11			-0.02	-0.65
Variance 2			-0.06	0.01	0.10			-0.00	-0.40

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU (initial reading > 34 NTU); Start purge @ 13:56, end purge @ 14:56; Initial purge rate of 150 ml/min lowered to 110 ml/min @ 14:01, and to 105 ml/min @ 14:16; Initial drawdown of > 1 foot by 14:11 stabilized by 14:31; Sample time is 15:00 at a sample rate of 105 ml/min; Weather is clear and sunny, 70 degrees F

Grab Samples

GWC-30

Groundwater sample

FERB-1

Field Equipment Rinse Blank

Product Name: Low-Flow System

Date: 2016-11-15 14:42:52

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 35 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.1 ft  
Screen Length 10 ft  
Depth to Water 26.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4962198 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.64 in  
Total Volume Pumped 21.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:20:37	3001.02	20.97	6.16	141.44	40.70	29.32	2.84	57.37
Last 5	14:25:37	3301.02	20.03	6.24	127.53	23.00	29.42	2.51	43.69
Last 5	14:30:37	3601.02	19.93	6.25	114.22	6.19	29.36	3.59	50.27
Last 5	14:35:37	3901.02	20.12	6.23	115.05	5.19	2.33	3.66	55.09
Last 5	14:40:37	4201.02	20.30	6.22	116.87	2.15	29.31	3.78	59.51
Variance 0			-0.10	0.01	-13.32			1.08	6.58
Variance 1			0.19	-0.02	0.83			0.07	4.82
Variance 2			0.18	-0.00	1.83			0.11	4.42

Notes

Water level within screen interval. Purging 3 well volumes  
Parameters stable. Weather: sunny

Grab Samples

GWC-32  
Sampling at 1445

Product Name: Low-Flow System

Date: 2016-11-17 08:47:23

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 26 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-33 continued  
Well diameter 2 in  
Well Total Depth 24 ft  
Screen Length 10 ft  
Depth to Water 21.68 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.456049 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	08:43:14	300.14	14.34	7.86	265.26	4.93	21.94	2.11	159.91
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

Will take 1 reading and then sample  
Sampling

Grab Samples

GWC-33  
Sampling at 0847

Product Name: Low-Flow System

Date: 2016-11-16 09:53:56

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley-Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis peristaltic  
Tubing Type Idpe  
Tubing Diameter 0.17 in  
Tubing Length 26 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 24 ft  
Screen Length 10 ft  
Depth to Water 18.95 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.456049 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 38.16 in  
Total Volume Pumped 12.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:32:11	1200.02	19.11	5.87	144.32	0.54	21.26	5.09	96.89
Last 5	09:37:11	1500.02	19.01	5.99	146.28	1.02	21.91	3.13	94.89
Last 5	09:42:11	1800.02	19.07	6.14	151.80	0.32	22.10	1.44	91.81
Last 5	09:47:11	2100.02	18.92	6.16	161.25	0.81	22.12	4.35	99.20
Last 5	09:52:11	2400.02	18.77	6.15	157.61	0.88	22.15	5.46	101.18
Variance 0			0.06	0.15	5.53			-1.69	-3.08
Variance 1			-0.15	0.02	9.45			2.91	7.39
Variance 2			-0.15	-0.01	-3.64			1.11	1.97

Notes

Purging 3 well volumes. Will decrease purge rate to 200ml/min after Well dry. Will come back to sample.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-15 12:23:39

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 33° 24' 38.35"  
Longitude -85° -2' -9.35"  
Sonde SN 440279  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Perstaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 51 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-34  
Well diameter 2 in  
Well Total Depth 50.8 ft  
Screen Length 10 ft  
Depth to Water 4.55 ft

Pumping Information:

Final Pumping Rate 210 mL/min  
Total System Volume 0.4376346 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.04 in  
Total Volume Pumped 7.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:19:15	900.01	19.41	6.35	58.87	3.83	4.72	4.64	70.78
Last 5	11:24:15	1200.02	19.44	6.18	54.86	3.63	4.72	4.79	75.32
Last 5	11:29:15	1500.02	19.46	6.08	53.24	1.82	4.72	4.85	78.48
Last 5	11:34:15	1800.01	19.41	6.05	52.37	1.26	4.72	4.79	80.03
Last 5	11:39:15	2100.01	19.42	6.03	51.73	0.78	4.72	4.78	81.59
Variance 0			0.02	-0.09	-1.62			0.05	3.15
Variance 1			-0.05	-0.04	-0.86			-0.06	1.55
Variance 2			0.00	-0.02	-0.64			-0.01	1.56

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge at 11:04, stop purge at 11:39; Initial turbidity was 6.54 with red/ orange particles in water; Initial purge rate of 190 ml/min, and increased purge rate to 210 ml/min @ 11:09; Sample time is 11:45 at a sample rate of 210 ml/min; Duplicate sample collected; Weather is sunny, 72 degrees F; TD is 48.54 ft Brock

Grab Samples

GWC-34

Groundwater sample

DUP-1

Groundwater sample duplicate



Product Name: Low-Flow System

Date: 2016-11-15 14:10:49

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC  
Site Name Plant Wansley - Gypsum Storage  
Latitude 33° 24' 38.35"  
Longitude -85° -2' -9.35"  
Sonde SN 440279  
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 35 ft

Well Information:

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.8 ft  
Screen Length 10 ft  
Depth to Water 8.66 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3930004 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 7.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:23:37	900.02	19.77	5.78	59.35	1.22	8.70	1.29	104.17
Last 5	13:28:37	1200.02	19.50	5.75	54.73	0.57	8.72	1.97	103.07
Last 5	13:33:43	1506.02	19.28	5.68	52.57	0.61	8.72	2.24	105.72
Last 5	13:38:43	1806.02	19.24	5.67	52.01	0.45	8.72	2.31	106.38
Last 5	13:43:43	2106.02	19.13	5.66	51.87	0.78	8.72	2.37	107.66
Variance 0			-0.22	-0.07	-2.15			0.27	2.65
Variance 1			-0.04	-0.01	-0.56			0.08	0.66
Variance 2			-0.11	-0.01	-0.14			0.05	1.28

Notes

Parameters are stable after three consecutive readings and turbidity is < 5 NTU; Start purge @ 13:08, stop purge at 13:43; Initial purge rate of 170 ml/min was increased to 200 ml/min @ 13:13, and to 210 ml/min @ 13:18; Sample time is 13:50 at a sample rate of 210 ml/min; Orange and white particles observed in water; Weather is partly cloudy, 71 degrees F; TD measured is 40.33 ft btoc

Grab Samples  
GWC-35  
Groundwater sample



Product Name: Low-Flow System

Date: 2017-01-19 17:39:55

Project Information:

Operator Name Markevious  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 55 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.9 ft  
Screen Length 10 ft  
Depth to Water 28.78 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4854882 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 53 in  
Total Volume Pumped 26.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	17:05:25	13499.90	17.38	5.72	17.98	6.78	31.66	8.68	85.10
Last 5	17:10:25	13799.84	17.32	5.71	17.87	6.64	31.68	8.73	86.06
Last 5	17:15:25	14099.85	17.32	5.69	17.99	4.61	31.73	9.18	87.13
Last 5	17:20:25	14399.84	17.32	5.69	18.02	5.00	31.75	9.13	85.69
Last 5	17:25:25	14699.85	17.23	5.73	17.84	5.00	31.77	9.38	85.31
Variance 0			0.00	-0.02	0.12			0.44	1.07
Variance 1			0.00	0.01	0.02			-0.04	-1.44
Variance 2			-0.09	0.04	-0.17			0.25	-0.37

Notes

1320 start purge at 200mL/min; 1330 turbidity in AU range decrease purge rate to 100mL/min; 1510 increase purge rate to 150mL/min; 1530 decrease purge rate to 100mL/min; 1725 all parameters stable; 1730 sampled at 100mL/min. Cloudy, calm, 71F

Grab Samples

GWA-1  
Sampled at 1730

Product Name: Low-Flow System

Date: 2017-01-19 14:40:46

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 63 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.1 ft  
Screen Length 10 ft  
Depth to Water 49.33 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5379798 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.36 in  
Total Volume Pumped 22.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	14:15:38	1199.90	17.74	5.58	82.60	11.60	49.48	8.21	118.87
Last 5	14:20:38	1499.90	18.43	5.65	82.35	5.99	49.39	7.81	111.57
Last 5	14:25:38	1799.90	18.60	5.63	82.30	4.53	49.36	7.40	110.77
Last 5	14:30:38	2099.90	18.61	5.63	82.33	2.77	49.36	7.29	108.16
Last 5	14:35:38	2399.90	18.63	5.63	82.43	2.68	49.36	7.21	106.60
Variance 0			0.17	-0.03	-0.04			-0.41	-0.80
Variance 1			0.00	0.01	0.03			-0.10	-2.61
Variance 2			0.02	0.00	0.10			-0.08	-1.55

Notes

Three well volumes purged since depth to water was less than one foot above top of screen. Well volumes purged at 0.45 L/min. Pump battery died at 1025 and was restarted at 1107. Battery died again at 1117 and was restarted at 1355. Purge rate lowered to 0.1L/min after 3rd well volume. Sample at 1445 at 0.1 L/min. Weather is sunny.

Grab Samples



Product Name: Low-Flow System

Date: 2017-01-17 15:00:37

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 45 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 40.61 ft  
Screen Length 10 ft  
Depth to Water 29.36 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.440854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:10:41	10513.98	18.12	6.15	219.00	5.31	29.40	0.42	70.73
Last 5	14:15:42	10814.98	18.29	6.18	219.72	5.22	29.40	0.41	69.99
Last 5	14:20:45	11117.98	18.21	6.16	219.98	4.84	29.40	0.40	71.77
Last 5	14:25:45	11417.98	18.30	6.18	218.82	4.99	29.40	0.39	71.98
Last 5	14:30:45	11717.98	18.46	6.18	219.31	4.47	29.40	0.39	74.01
Variance 0			-0.08	-0.02	0.26			-0.01	1.78
Variance 1			0.10	0.02	-1.17			-0.01	0.21
Variance 2			0.16	-0.00	0.49			-0.00	2.03

Notes

1115 start purge at 200mL/min; 1230 decrease purge to 150mL/min; 1310 decrease purge to 100mL/min; 1430 all parameters stable;1435 sampled at 100mL/min. Cloudy, light wind, 75F

Grab Samples

GWA-4  
Sampled at 1435

Product Name: Low-Flow System

Date: 2017-01-17 17:14:04

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 48 ft

Pump placement from TOC 40 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.8 ft  
Screen Length 10 ft  
Depth to Water 30.01 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4670322 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 117.6 in  
Total Volume Pumped 41 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	16:51:00	8124.77	17.62	6.09	66.18	--	--	4.32	80.95
Last 5	16:56:00	8424.77	17.62	6.09	65.43	0.57	39.40	4.41	80.15
Last 5	17:01:00	8724.77	17.71	6.09	64.63	0.54	39.53	5.15	78.88
Last 5	17:06:00	9024.77	17.71	6.09	64.60	0.42	39.70	5.41	78.42
Last 5	17:11:00	9324.77	17.65	6.09	64.42	0.40	39.81	5.67	78.03
Variance 0			0.09	0.00	-0.80			0.74	-1.27
Variance 1			0.00	0.00	-0.03			0.26	-0.46
Variance 2			-0.07	0.00	-0.19			0.27	-0.39

Notes

3 well volumes purged due to drawdown at 1555 at 0.5L/min. Purge rate lowered to 0.2 L/min after 3rd well vol. sample at 1716 at 0.2 L/min.  
Weather is sunny.

Grab Samples



## GROUNDWATER SAMPLING LOG SHEET

Client:	GPC	Project No.:	0372406	Sampling Date:	1/17/2017
Site:	Plant Wansley	Location:	Gypsum LF	Sampler's Name:	Taylor Payne
Well ID:	GWA-29	Pump Type/Model:	QED Bladder	Sample Collection Time:	1215
Total Depth (ft):	57.1	Tubing Material:	LDPE	Sample Purge Rate (mL/min) <sup>2,3</sup> :	100
Depth to Water (ft):	45.78	Pump Intake Depth (ft):	52	Sample ID:	GWA-29
Well Diameter (in):	2	Start/Stop Purge Time:	1120 / 1210	Laboratory Analyses:	metals, radium, inorganics
Well Volume (gal) = 0.041d <sup>2</sup> h:		Purge Rate (mL/min) <sup>1</sup> :	100	Total Purge Volume (L):	5
Well Volume (L) = gal * 3.785:		Purge Method:	Low-Flow Well Volume Other:	QA/QC Collected?	NO
d = well diameter (inches) h = length of water column (feet)		Sampling Method <sup>3</sup> :	Pump Discharge Other:	QA/QC I.D.	NA
Well Type:	Flush	Stick Up			
Well Lock:	Yes	No			
Well Cap Condition:	Good	Replace	All sample containers requiring chemical preservation properly preserved prior to demob from well? <sup>8</sup> Yes		
Well Tag Present:	Yes	No			

Time	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1125	18.29	84.62	7.72	5.96	59.2	6.77	100	0.5	45.79	
1130	18.56	84.22	7.52	5.93	62.4	9.29	100	1.0	45.81	
1135	18.56	83.85	7.42	5.94	64.9	7.71	100	2.5	45.81	
1140	18.86	83.46	7.43	5.94	68.6	6.90	100	3.0	45.81	
1145	18.13	83.32	7.39	5.95	73.5	6.17	100	3.5	45.81	
1150	18.86	83.33	7.26	5.94	79.7	5.48	100	4.0	45.81	
1155	19.79	83.32	7.20	5.94	86.0	5.10	100	4.5	45.81	
1200	19.23	83.22	7.14	5.93	95.3	4.76	100	5.0	45.81	
1205	19.01	83.09	7.15	5.94	103.1	4.45	100	5.5	45.81	
1210	19.44	83.09	7.11	5.94	109.8	4.25	100	6.0	45.81	
										Well stable at 1210
										Sampled at 1215
<b>Stabilizing Criteria<sup>4, 5</sup></b>		<b>+/- 5%</b>	0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater) <sup>9</sup>	<b>+/- 0.1 SU</b>		<b>&lt; 5 NTUs</b>	<b>&gt; 100 mL &lt; 250 mL</b>	<b>&gt; 3L</b>	<b>&lt; 0.33 ft<sup>6, 7</sup></b>	

(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 within 3 consecutive readings. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft per 3 readings.  
 (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)

**\*Note: Revised from handwritten field log recorded on 01/17/2017.**



Product Name: Low-Flow System

Date: 2017-01-26 11:35:50

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 37 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-5  
Well diameter 2 in  
Well Total Depth 36.75 ft  
Screen Length 10 ft  
Depth to Water 19.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4051467 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 23.52 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	11:11:41	1800.01	17.39	6.28	231.59	0.20	20.97	5.39	86.26
Last 5	11:16:41	2100.01	17.36	6.27	168.41	0.39	21.00	5.17	83.55
Last 5	11:21:41	2400.01	17.40	6.28	219.36	0.36	21.10	5.18	82.21
Last 5	11:26:41	2700.02	17.63	6.28	216.41	0.34	21.11	5.45	82.15
Last 5	11:31:41	3000.01	17.81	6.29	224.95	0.11	21.15	5.48	81.33
Variance 0			0.03	0.00	50.96			0.01	-1.34
Variance 1			0.24	0.00	-2.95			0.27	-0.07
Variance 2			0.18	0.01	8.54			0.02	-0.82

Notes

Parameters stable. Weather-sunny 50's. changed purge rate to .1L/min at 10:51.

Grab Samples

GWC-5  
Sampling at 1137

Product Name: Low-Flow System

Date: 2017-01-26 13:47:57

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 34 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 30.67 ft  
Screen Length 10 ft  
Depth to Water 18.54 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3917564 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:24:20	2700.01	18.57	6.13	185.59	1.26	18.60	4.99	87.66
Last 5	13:29:20	3000.01	18.62	6.12	185.76	1.35	18.60	0.00	86.68
Last 5	13:34:20	3300.01	18.88	6.12	185.55	1.00	18.60	5.27	85.77
Last 5	13:39:20	3600.01	18.97	6.11	184.79	0.94	18.60	5.30	84.81
Last 5	13:44:20	3900.01	19.15	6.12	184.71	0.92	18.60	5.53	83.86
Variance 0			0.26	0.00	-0.21			5.27	-0.91
Variance 1			0.09	-0.02	-0.76			0.04	-0.96
Variance 2			0.18	0.02	-0.08			0.22	-0.96

Notes

May need to purge 3 WV  
D.O within 10%. Parameters stable. Weather: sunny 50's. sampling at .1L/mom

Grab Samples

GWC-6  
Sampling at 13:50

Product Name: Low-Flow System

Date: 2017-01-26 12:08:53

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 28 ft

Pump placement from TOC 21 ft

Well Information:

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 26.1 ft  
Screen Length 10 ft  
Depth to Water 8.7 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2149758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27.48 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.3	+/- 10%
Last 5	11:43:43	900.03	17.25	6.45	825.02	0.67	10.59	1.09	190.25
Last 5	11:48:43	1200.02	17.18	6.45	823.49	0.11	10.97	0.98	213.62
Last 5	11:53:43	1500.03	17.41	6.45	825.09	0.10	11.24	0.96	232.69
Last 5	11:58:43	1800.02	17.48	6.45	824.86	0.84	11.53	0.95	245.26
Last 5	12:03:43	2100.03	17.40	6.45	821.35	0.61	11.79	0.96	249.18
Variance 0			0.23	-0.00	1.60			-0.01	19.06
Variance 1			0.08	-0.00	-0.23			-0.01	12.58
Variance 2			-0.09	0.00	-3.50			0.01	3.92

Notes

Parameters stable at 1205 and drawdown less than 0.3 feet for 3 readings. Sample GWC-7 at 1215. Windy,sunny 55 degrees.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-26 14:07:56

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 25 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20.64 ft  
Screen Length 10 ft  
Depth to Water 8.71 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2015856 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 $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.3	+/- 10%
Last 5	13:44:42	1800.02	19.67	6.17	356.12	1.32	8.81	2.39	342.41
Last 5	13:49:42	2100.03	19.67	6.17	351.81	2.87	8.80	2.36	383.48
Last 5	13:54:42	2400.02	19.80	6.16	342.58	1.93	8.81	2.27	415.72
Last 5	13:59:42	2700.02	19.76	6.15	336.23	1.03	8.81	2.14	442.67
Last 5	14:04:42	2999.97	19.61	6.14	328.09	0.75	8.81	2.04	464.20
Variance 0			0.13	-0.01	-9.24			-0.09	32.25
Variance 1			-0.04	-0.01	-6.34			-0.13	26.95
Variance 2			-0.15	-0.01	-8.15			-0.10	21.53

Notes

Parameters stable at 1405. Sunny, breezy 60 degrees. Purge and sample at 100 ml/min. Sample time is 1415.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-31 11:01:54

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 24.4 ft

Pump placement from TOC 14.4 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.4 ft  
Screen Length 10 ft  
Depth to Water 6.89 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.1989075 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	10:35:06	3900.00	15.24	5.77	308.14	5.42	7.13	0.10	33.28
Last 5	10:40:06	4200.00	15.30	5.76	308.16	5.06	7.14	0.10	34.92
Last 5	10:45:06	4500.00	15.39	5.76	309.28	4.75	7.14	0.10	36.36
Last 5	10:50:06	4799.96	15.48	5.76	309.33	4.21	7.14	0.10	38.39
Last 5	10:55:06	5099.96	15.61	5.75	311.11	3.37	7.14	0.09	39.87
Variance 0			0.09	-0.00	1.12			-0.00	1.44
Variance 1			0.08	-0.00	0.05			-0.00	2.04
Variance 2			0.14	-0.00	1.79			-0.00	1.48

Notes

Weather: 57F Sunny. Purge Time: 0930/1055.

Grab Samples

GEC-9  
Sample Time: 1100

Product Name: Low-Flow System

Date: 2017-01-31 13:19:38

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 26.71 ft

Pump placement from TOC 16.71 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 21.71 ft  
Screen Length 10 ft  
Depth to Water 11.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.209218 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 118.32 in  
Total Volume Pumped 14.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	12:55:17	2999.98	19.59	6.30	275.17	--	--	1.34	43.66
Last 5	13:00:17	3299.98	19.73	6.26	296.27	--	--	1.09	45.67
Last 5	13:05:17	3599.98	19.77	6.27	294.01	9.95	19.68	1.00	47.12
Last 5	13:10:17	3899.98	19.86	6.24	315.91	--	--	0.91	63.22
Last 5	13:15:17	4199.98	19.64	6.47	236.13	--	--	1.76	22.35
Variance 0			0.04	0.00	-2.26			-0.09	1.45
Variance 1			0.09	-0.03	21.90			-0.09	16.10
Variance 2			-0.22	0.22	-79.78			0.85	-40.87

Notes

Purged dry at 137

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-31 14:31:25

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 23.8 ft

Pump placement from TOC 13.8 ft

Well Information:

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.80 ft  
Screen Length 10 ft  
Depth to Water 6.30 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.1962295 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	14:06:31	900.02	20.67	5.91	201.41	3.41	6.37	0.18	-5.26
Last 5	14:11:31	1199.99	20.53	5.92	202.72	4.14	6.37	0.15	-5.79
Last 5	14:16:31	1500.00	20.77	5.93	207.92	4.94	6.37	0.14	-7.96
Last 5	14:21:31	1800.00	20.67	5.93	210.21	3.93	6.37	0.23	-7.68
Last 5	14:26:31	2099.99	20.57	5.94	211.00	2.89	6.37	0.17	-7.61
Variance 0			0.24	0.01	5.20			-0.01	-2.17
Variance 1			-0.10	0.00	2.29			0.09	0.27
Variance 2			-0.10	0.01	0.79			-0.06	0.07

Notes

Weather: 71F Sunny. Purge time: 1350/1425.

Grab Samples

GWC-11  
Sample Time: 1430

Product Name: Low-Flow System

Date: 2017-01-31 11:44:20

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 43 ft

Pump placement from TOC 7.5 ft

Well Information:

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.65 ft  
Screen Length 10 ft  
Depth to Water 26.76 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4433831 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 60.6 in  
Total Volume Pumped 36 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	11:19:01	8411.91	17.20	7.37	306.14	2.35	31.80	1.80	-86.13
Last 5	11:24:01	8711.97	17.34	7.37	305.75	2.51	31.80	1.53	-90.83
Last 5	11:29:01	9011.92	17.62	7.37	305.32	1.74	31.80	1.32	-93.60
Last 5	11:34:01	9311.92	17.73	7.37	305.87	2.25	31.81	1.21	-95.27
Last 5	11:39:01	9611.91	18.07	7.37	306.09	1.57	31.81	1.16	-97.30
Variance 0			0.28	0.00	-0.42			-0.22	-2.77
Variance 1			0.10	0.00	0.55			-0.10	-1.67
Variance 2			0.34	-0.00	0.22			-0.05	-2.03

Notes

Begin purging at 858. Switch to 3 well volumes at 1018. Purge at 0.45L/min. Switch to QED Bladder at 1058. 1108 resume purging at 0.1 L/min. Finish 1138. Sample at 1145. Weather is sunny.

Grab Samples



Product Name: Low-Flow System

Date: 2017-01-31 14:29:16

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 93 ft

Pump placement from TOC 8 ft

Well Information:

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 90.4 ft  
Screen Length 10 ft  
Depth to Water 6.38 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.679875 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.52 in  
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	14:06:09	2700.03	19.41	6.77	60.35	0.30	6.59	3.50	48.10
Last 5	14:11:09	3000.02	19.34	6.76	60.33	0.11	6.59	3.58	54.52
Last 5	14:16:09	3300.03	19.28	6.77	60.44	0.10	6.59	3.68	58.47
Last 5	14:21:09	3599.97	19.27	6.75	60.30	0.08	6.59	3.81	60.93
Last 5	14:26:09	3899.96	19.53	6.76	59.79	0.10	6.59	3.98	63.01
Variance 0			-0.06	0.01	0.10			0.10	3.94
Variance 1			-0.01	-0.01	-0.13			0.13	2.46
Variance 2			0.27	0.01	-0.51			0.17	2.08

Notes

Being purging at 1321. Finish at 1426. Sample at 1430 at 0.2 L/min. Weather is sunny.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-01 12:45:57

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 29.6 ft

Pump placement from TOC 19.6 ft

Well Information:

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 24.6 ft  
Screen Length 10 ft  
Depth to Water 9.52 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2221173 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.32 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:20:39	1500.02	17.74	5.51	240.40	8.46	9.63	0.13	54.92
Last 5	12:25:39	1800.02	18.40	5.50	241.61	8.25	9.63	0.12	57.28
Last 5	12:30:39	2100.02	17.86	5.51	241.31	4.41	9.63	0.11	55.12
Last 5	12:35:39	2399.99	17.69	5.50	247.81	4.15	9.63	0.10	57.64
Last 5	12:40:39	2699.99	17.48	5.50	252.26	4.17	9.63	0.10	57.28
Variance 0			-0.55	0.00	-0.30			-0.00	-2.16
Variance 1			-0.17	-0.01	6.50			-0.01	2.52
Variance 2			-0.21	-0.00	4.45			-0.00	-0.36

Notes

Weather: 50F Partly Cloudy. Purge Time: 1155/1240

Grab Samples

GWC-14  
Sample Time 1245

Product Name: Low-Flow System

Date: 2017-02-01 09:50:41

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 55 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-15  
Well diameter 2 in  
Well Total Depth 50.45 ft  
Screen Length 10 ft  
Depth to Water 6.16 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3354883 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:25:51	599.72	15.43	6.60	98.20	0.01	6.43	3.34	45.84
Last 5	09:30:51	899.72	15.48	6.55	113.09	0.17	6.44	3.21	46.77
Last 5	09:35:51	1199.72	15.43	6.55	114.48	0.08	6.44	3.17	46.78
Last 5	09:40:51	1499.70	15.67	6.56	114.76	0.29	6.44	3.13	46.48
Last 5	09:45:51	1799.71	15.75	6.56	115.41	0.08	6.45	3.11	46.58
Variance 0			-0.05	-0.00	1.39			-0.03	0.01
Variance 1			0.24	0.00	0.28			-0.04	-0.31
Variance 2			0.07	0.00	0.66			-0.02	0.10

Notes

Parameters stable at 0945 with little drawdown. Sample GWC-15 at 0955. Purging and sampling both at 200 ml/min. Clear and 50 degrees. Collect extra radium bottle for lab QA/QC

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-01 11:39:17

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 30 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-16  
Well diameter 2 in  
Well Total Depth 27.06 ft  
Screen Length 10 ft  
Depth to Water 10.2 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 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	11:14:06	900.07	18.74	6.12	97.55	0.10	10.25	3.96	47.34
Last 5	11:19:06	1200.07	18.79	6.12	97.17	0.20	10.25	3.96	50.07
Last 5	11:24:06	1500.07	18.60	6.14	96.42	0.08	10.25	3.91	52.74
Last 5	11:29:06	1800.07	18.29	6.13	97.06	0.14	10.25	3.93	55.84
Last 5	11:34:06	2100.05	18.88	6.14	97.54	--	--	3.86	57.93
Variance 0			-0.18	0.01	-0.75			-0.05	2.67
Variance 1			-0.31	-0.00	0.63			0.02	3.10
Variance 2			0.58	0.01	0.49			-0.06	2.08

Notes

Parameters stable at 1135. Purge and sample at 200 ml/min. Collect GWC-16 and Dup-3 at 1145. Partly cloudy, breezy 60 degrees.

Grab Samples

GWC-16  
Primary at 1145

Product Name: Low-Flow System

Date: 2017-02-01 13:40:22

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 58 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.3 ft  
Screen Length 10 ft  
Depth to Water 21.3 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.3488785 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.5 in  
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:15:13	1200.02	20.41	6.18	112.11	1.23	22.48	2.27	70.93
Last 5	13:20:13	1500.03	20.77	6.18	111.63	0.42	22.48	2.08	73.09
Last 5	13:25:13	1800.03	21.38	6.18	110.71	0.75	22.49	1.95	74.76
Last 5	13:30:13	2100.03	20.76	6.17	111.30	0.27	22.48	1.96	76.76
Last 5	13:35:13	2400.03	21.10	6.18	112.18	0.37	22.48	2.04	78.03
Variance 0			0.61	0.00	-0.92			-0.13	1.67
Variance 1			-0.62	-0.00	0.59			0.01	2.00
Variance 2			0.34	0.00	0.88			0.08	1.27

Notes

Reduced purge rate from 200 to 150 ml/min at 1305. Parameters stable at 1335. 2.5 inches of drawdown. Sample GWC-17 at 1345 at 150 ml/min. Party cloudy, breezy, 70 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-01 14:07:10

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 35.77 ft

Pump placement from TOC 25.77 ft

Well Information:

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 29.77 ft  
Screen Length 10 ft  
Depth to Water 14.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2496567 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.48 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:42:02	300.02	18.89	6.01	96.36	0.85	14.22	1.73	80.14
Last 5	13:47:02	600.02	18.02	5.99	97.35	0.91	14.22	1.47	75.68
Last 5	13:52:02	900.02	17.63	5.98	97.59	0.63	14.22	1.27	73.28
Last 5	13:57:02	1200.02	17.26	5.98	97.31	0.77	14.22	1.19	69.56
Last 5	14:02:02	1500.08	17.19	5.98	97.64	0.51	14.22	1.17	67.74
Variance 0			-0.39	-0.01	0.25			-0.20	-2.39
Variance 1			-0.38	-0.00	-0.28			-0.08	-3.73
Variance 2			-0.07	-0.00	0.33			-0.02	-1.82

Notes

Weather: 54F Partly Cloudy. Purge Time: 1235/1300.

Grab Samples

GWC-18  
Sample Time 1305



# GROUNDWATER SAMPLING LOG SHEET

Client: CPC Project No.: 0372406 Sampling Date: 2-2-17  
 Site: PICANT WEINSLEY Location: CUPSUM AF Sampler's Name: C. Hurale  
 Well ID: GW-19 Pump Type/Model: ARXIS Peristaltic Sample Collection Time: 1020  
 Total Depth (ft): 37.5 (37.46 measured) Tubing Material: LDPE Sample Purge Rate (L/min): 0.1  
 Depth to Water (ft): 8.62 Pump Intake Depth (ft): 32.5 Sample ID: GW-19  
 Well Diameter (in): 2 Start/Stop Purge Time: 0915/1015 Laboratory Analyses: See COC  
 Well Volume (gal) = 0.041d<sup>2</sup>h: 4.74 Purge Rate (L/min): 0.15/0.1  
 Well Volume (L) = gal \* 3.785: 17.93 Total Purge Volume (L): 6.00  
 d = well diameter (inches) h = length of water column (feet)  
 Purge Method: Low-Flow Well Volume Other:  
 Well Type: Flush  Slick Up   
 Well Lock: Yes  No   
 Well Cap Condition: Good  Replace   
 Well Tag Present: 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 mg/L (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0920						<del>8.49</del>	<del>150</del>	<del>0.75</del>	<del>9.44</del>	Fillwell Not full
0925	13.49	178.7	0.38	5.88	83.1	8.49	150	0.75	9.44	
0930	13.72	175.1	0.28	5.87	81.0	8.28	150	1.50	9.70	Reducing flow rate to reduce drawdown
0935	13.67	164.5	0.27	5.88	73.7	8.43	100	2.00	9.65	
0940	13.67	155.8	0.24	5.89	69.0	11.79	100	2.50	9.65	
0945	13.63	149.7	0.23	5.89	66.3	—	100	3.00	9.65	
0950	13.83	142.7	0.21	5.89	66.5	15.76	100	3.50	9.65	
0955	14.01	137.6	0.20	5.90	66.7	8.91	100	4.00	9.65	
1000	14.19	134.7	0.20	5.89	58.5	7.72	100	4.50	9.65	
1005	14.27	132.1	0.19	5.89	58.2	3.70	100	5.00	9.65	
1010	14.31	129.8	0.18	5.89	57.7	4.09	100	5.50	9.65	- Parameters Stable
1015	14.49	127.0	0.18	5.89	56.7	4.52	100	6.00	9.65	
Water level and Parameters Stable Turbidity < 5.00 NTU										Water has odor and red sediment -> before turbidity dropped.
Sampling										
Stabilizing Criteria <sup>4,5</sup>										

(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)

Product Name: Low-Flow System

Date: 2017-02-02 13:34:50

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 76 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-20  
Well diameter 2 in  
Well Total Depth 71 ft  
Screen Length 10 ft  
Depth to Water 7.56 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.4292202 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.16 in  
Total Volume Pumped 13.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:10:28	2100.02	16.73	6.18	110.73	9.37	7.72	1.13	51.58
Last 5	13:15:28	2400.02	16.74	6.17	110.69	5.56	7.72	1.16	52.18
Last 5	13:20:28	2700.02	16.74	6.17	110.46	4.23	7.74	1.18	51.21
Last 5	13:25:28	3000.02	16.74	6.17	110.37	3.65	7.74	1.20	51.51
Last 5	13:30:28	3300.02	16.74	6.17	110.15	3.93	7.74	1.22	52.43
Variance 0			0.00	-0.00	-0.23			0.02	-0.97
Variance 1			-0.00	0.00	-0.10			0.01	0.31
Variance 2			0.00	-0.01	-0.22			0.03	0.91

Notes

Weather: 63F light rain. Purge time: 1235/1330

Grab Samples

GWC-20  
Sample Time 1335



Product Name: Low-Flow System

Date: 2017-02-02 09:33:02

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.3 ft  
Screen Length 10 ft  
Depth to Water 18.4 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2685369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.2 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	09:08:06	600.07	13.55	5.57	49.08	0.33	19.94	0.70	74.36
Last 5	09:13:06	900.07	13.56	5.57	49.06	0.52	20.03	0.80	74.68
Last 5	09:18:06	1200.07	13.53	5.57	49.08	0.23	20.11	0.80	74.98
Last 5	09:23:06	1500.07	13.61	5.57	49.01	0.26	20.17	0.80	75.59
Last 5	09:28:06	1800.07	13.67	5.57	48.92	53.00	2.20	0.79	76.08
Variance 0			-0.03	0.00	0.02			-0.01	0.30
Variance 1			0.08	-0.00	-0.07			0.00	0.61
Variance 2			0.05	-0.00	-0.09			-0.01	0.49

Notes

Parameters stable at 0938 with limited drawdown. Purging and sampling at 100 ml/min. Clear and 45 degrees. Sample GWC-21 at 0940.

Grab Samples



Product Name: Low-Flow System

Date: 2017-02-03 10:14:47

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 72.29 ft

Pump placement from TOC 62.29 ft

Well Information:

Well ID GWC-23  
Well diameter 2 in  
Well Total Depth 67.29 ft  
Screen Length 10 ft  
Depth to Water 39.27 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4126609 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 15.36 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	09:46:54	600.02	14.99	6.04	47.36	14.70	40.35	5.67	97.41
Last 5	09:51:54	900.02	15.35	5.95	47.40	5.49	40.75	5.45	95.79
Last 5	09:56:54	1200.02	15.53	5.93	48.22	3.37	40.65	5.53	93.53
Last 5	10:01:54	1500.02	15.21	5.92	46.80	2.01	40.58	5.46	93.16
Last 5	10:06:54	1800.02	15.08	5.91	46.20	2.34	40.55	5.47	91.99
Variance 0			0.18	-0.02	0.83			0.07	-2.26
Variance 1			-0.32	-0.01	-1.42			-0.06	-0.37
Variance 2			-0.13	-0.01	-0.60			0.01	-1.17

Notes

Weather: 46F Cloudy. Light rain from 0945-1000. Purge Time: 0945/1010. Used QED Bladder Pump. Input Alexis Peristaltic at set up of template.

Grab Samples

GWC-23  
Sample Time 1015

Product Name: Low-Flow System

Date: 2017-02-06 15:32:47

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 61.1 ft

Pump placement from TOC 50.1 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 48.82 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5539931 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27.36 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	15:21:08	300.10	18.14	5.43	39.70	0.82	49.80	6.49	126.78
Last 5	15:26:08	600.02	17.72	5.36	38.96	0.41	0.00	6.63	122.03
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.42	-0.06	-0.74			0.14	-4.75
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Purged Dry at 1530. Will sample tomorrow morning.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-23 13:44:26

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 58 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 61.2 ft  
Screen Length 10 ft  
Depth to Water 52 ft

Pumping Information:

Final Pumping Rate 400 mL/min  
Total System Volume 0.3643306 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	13:22:59	600.03	15.79	8.68	146.26	1000.00	0.00	5.84	67.18
Last 5	13:27:59	900.03	15.83	7.57	126.02	4.43	0.00	6.13	71.91
Last 5	13:32:59	1200.03	15.84	7.04	139.41	2.28	--	3.97	72.43
Last 5	13:37:59	1500.02	15.40	6.71	156.49	4.63	--	4.17	73.65
Last 5	13:42:59	1800.03	15.02	6.59	155.91	2.00	--	4.26	73.02
Variance 0			0.00	-0.53	13.39			-2.16	0.52
Variance 1			-0.44	-0.33	17.08			0.20	1.22
Variance 2			-0.38	-0.11	-0.58			0.10	-0.62

Notes

Well is purged dry. Will sample tomorrow

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-19 11:09:14

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 54 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.4 ft  
Screen Length 10 ft  
Depth to Water 34.13 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5301225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:35:02	600.03	16.83	6.03	52.16	7.00	35.10	6.93	133.80
Last 5	10:40:02	900.03	16.74	5.79	51.69	5.79	35.42	6.89	126.27
Last 5	10:45:02	1200.02	16.70	5.71	51.38	4.53	35.62	6.81	123.47
Last 5	10:50:02	1500.02	16.92	5.70	51.04	3.80	35.66	6.72	120.98
Last 5	10:55:02	1800.03	16.88	5.70	50.80	2.47	35.69	6.69	116.12
Variance 0			-0.04	-0.08	-0.32			-0.08	-2.81
Variance 1			0.22	-0.01	-0.34			-0.09	-2.49
Variance 2			-0.04	-0.01	-0.23			-0.03	-4.86

Notes

1025 start purge at 100mL/min; 1055 all parameters stable; 1100 sampled at 100mL/min. Partly cloudy, calm, 66F

Grab Samples

GWC-26  
Sampled at 1100

Product Name: Low-Flow System

Date: 2017-01-20 10:14:07

Project Information:

Operator Name Taylor Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 73 ft

Pump placement from TOC 65 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.8 ft  
Screen Length 10 ft  
Depth to Water 48.68 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5852782 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.76 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	09:50:10	900.02	16.75	5.73	48.57	11.30	49.83	4.85	84.13
Last 5	09:55:10	1200.02	16.78	5.73	49.22	6.55	49.88	4.70	84.52
Last 5	10:00:10	1500.02	16.82	5.71	47.81	4.39	49.90	4.61	84.45
Last 5	10:05:10	1800.03	17.00	5.72	48.49	3.62	49.90	4.51	84.52
Last 5	10:10:10	2099.83	17.18	5.71	48.44	2.97	49.91	4.42	85.13
Variance 0			0.05	-0.02	-1.41			-0.10	-0.07
Variance 1			0.17	0.01	0.68			-0.10	0.07
Variance 2			0.18	-0.00	-0.05			-0.08	0.61

Notes

Began purging at 0935 at 0.1L/min. Finish purging at 1010. Sample at 1015 at 0.1 L/min. Weather cloudy. DUP-1 taken.

Grab Samples

GWC-27  
GWC-27 1015  
DUP-1  
DUP-1

Product Name: Low-Flow System

Date: 2017-01-24 11:00:40

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 52 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.60 ft  
Screen Length 10 ft  
Depth to Water 29.05 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3359516 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 61.44 in  
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	10:34:55	2399.80	16.65	6.03	52.93	12.60	34.10	7.03	89.07
Last 5	10:39:55	2699.80	16.82	6.02	52.91	9.64	34.21	6.74	96.27
Last 5	10:44:55	2999.80	16.91	6.00	52.76	6.54	34.17	6.49	105.07
Last 5	10:49:55	3299.80	16.86	6.01	52.73	6.21	34.19	6.33	114.41
Last 5	10:54:55	3599.80	16.91	6.03	52.57	6.43	33.72	6.23	124.16
Variance 0			0.09	-0.02	-0.16			-0.25	8.80
Variance 1			-0.04	0.01	-0.03			-0.16	9.35
Variance 2			0.05	0.02	-0.16			-0.10	9.75

Notes

Pump shut off at 1057. I think the marine battery may have died. Will replace and continue purge

Grab Samples



Product Name: Low-Flow System

Date: 2017-01-24 11:45:20

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 52 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.6 ft  
Screen Length 10 ft  
Depth to Water 29.05 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.3359516 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 66.6 in  
Total Volume Pumped 25.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	11:22:36	900.02	17.17	6.01	52.60	3.51	35.22	6.06	184.26
Last 5	11:27:36	1199.95	17.13	6.03	52.67	2.72	35.70	6.15	195.85
Last 5	11:32:36	1499.94	17.16	6.00	52.73	3.63	36.30	6.17	210.42
Last 5	11:37:36	1799.95	17.34	6.01	52.76	2.68	35.45	6.14	218.42
Last 5	11:42:36	2099.94	17.45	6.03	52.68	3.63	34.60	6.12	226.90
Variance 0			0.03	-0.03	0.06			0.02	14.57
Variance 1			0.18	0.01	0.04			-0.02	7.99
Variance 2			0.10	0.02	-0.08			-0.02	8.48

Notes

Continued purge after marine battery died. Parameters stable. Weather: sunny 50's. Taking an extra radium bottle here

Grab Samples

GWA-30  
Sampling at 1147. Extra RAD bottle

Product Name: Low-Flow System

Date: 2017-01-24 13:18:40

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 42 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 38.1 ft  
Screen Length 10 ft  
Depth to Water 28.93 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.2886532 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 65.16 in  
Total Volume Pumped 11.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	12:57:32	300.09	18.69	5.89	92.66	11.60	29.39	6.79	91.20
Last 5	13:02:32	600.02	18.50	5.93	94.18	11.23	30.25	6.64	89.71
Last 5	13:07:32	900.02	18.48	5.97	96.33	10.00	32.43	6.52	87.86
Last 5	13:12:32	1199.89	18.44	5.98	101.56	11.20	34.36	6.56	90.24
Last 5	13:17:32	1499.89	18.63	5.93	101.38	--	--	5.69	95.32
Variance 0			-0.02	0.04	2.15			-0.11	-1.85
Variance 1			-0.04	0.00	5.23			0.04	2.38
Variance 2			0.19	-0.05	-0.18			-0.87	5.09

Notes

Well dry. Will come back to sample tomorrow.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-25 12:45:54

Project Information:

Operator Name Andreas Shore sits  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 35 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.1 ft  
Screen Length 10 ft  
Depth to Water 24.99 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4055443 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 63.72 in  
Total Volume Pumped 11.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:00:32	2700.03	18.62	6.10	120.09	0.42	29.34	6.12	83.44
Last 5	12:05:32	2999.96	18.87	6.11	122.84	0.36	29.58	6.49	81.97
Last 5	12:10:32	3299.96	19.13	6.13	125.71	0.39	29.69	5.83	78.90
Last 5	12:15:32	3599.96	19.05	6.12	127.78	0.63	29.94	5.26	76.75
Last 5	12:20:32	3899.96	18.96	6.17	143.19	2.71	30.01	3.20	62.95
Variance 0			0.26	0.01	2.87			-0.66	-3.07
Variance 1			-0.08	-0.00	2.07			-0.57	-2.15
Variance 2			-0.09	0.04	15.42			-2.06	-13.80

Notes

Start purging well @ 11:15, first reading taken @ 11:20; Stop purging well @ 12:20; Three well volume purge; Initial purge rate of 150 ml/min was increased to 250 ml/min @ 11:20, decreased to 200 ml/min @ 11:40, decreased to final rate of 100 ml/min @ 12:00; Well evacuated between 12:20 and 12:25 with water level below approximate pump intake @ 30.3 ft Brock; Wait for recharge to sample well; Weather is sunny, wind from the west, 65 degrees F

Grab Samples



Product Name: Low-Flow System

Date: 2017-01-25 14:14:23

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 26 ft

Pump placement from TOC 18.5 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.46 ft  
Screen Length 10 ft  
Depth to Water 13.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.206049 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 62.16 in  
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:49:32	4199.96	19.63	6.20	199.85	1.25	18.33	7.55	93.06
Last 5	13:54:32	4499.96	19.68	6.13	200.61	0.72	18.59	7.56	92.86
Last 5	13:59:32	4799.96	19.77	6.12	201.37	0.84	18.88	7.49	92.40
Last 5	14:04:32	5099.96	19.59	6.11	204.88	0.62	19.11	7.45	91.83
Last 5	14:09:32	5399.96	19.55	6.09	206.89	0.78	19.36	7.38	91.25
Variance 0			0.09	-0.01	0.76			-0.07	-0.46
Variance 1			-0.18	-0.00	3.51			-0.04	-0.57
Variance 2			-0.04	-0.02	2.01			-0.07	-0.57

Notes

Purged 18 liters which is 3 well volumes. Start purging at 1243 and stop at 1413. Weather 60 degrees and mostly clear. Collect GWC-33 sample at 1420.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-25 14:54:34

Project Information:

Operator Name Andreas Shoredits  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 52 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-34  
Well diameter 2 in  
Well Total Depth 50.8 ft  
Screen Length 10 ft  
Depth to Water 4.42 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4559516 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 15.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:59:56	2699.91	18.47	5.92	50.26	0.95	4.64	4.90	177.10
Last 5	14:04:56	2999.91	18.20	5.91	50.28	0.96	4.64	4.94	199.68
Last 5	14:09:56	3299.91	18.21	5.91	50.25	0.62	4.64	4.93	214.36
Last 5	14:14:56	3599.91	18.09	5.92	50.18	0.83	4.64	4.93	225.87
Last 5	14:19:56	3899.91	18.16	5.92	50.36	1.57	4.64	4.94	231.43
Variance 0			0.01	0.00	-0.03			-0.01	14.67
Variance 1			-0.12	0.01	-0.07			0.01	11.51
Variance 2			0.06	-0.00	0.18			0.01	5.56

Notes

Samples collected at 14:25. DUP-2 collected.

Grab Samples

GWC-34

Groundwater sample collected @ 14:25

DUP-2

Groundwater sample duplicate

Product Name: Low-Flow System

Date: 2017-01-26 10:16:05

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.33 ft  
Screen Length 10 ft  
Depth to Water 8.25 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2685369 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 $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.1	+/- 0.1	+/- 3%	+/- 5		+/- 0.3	+/- 10%
Last 5	09:48:47	600.16	16.72	5.62	56.09	0.51	8.28	2.55	95.35
Last 5	09:53:47	900.03	16.73	5.61	55.70	1.46	8.29	2.60	93.81
Last 5	09:58:47	1200.02	16.55	5.61	55.45	0.93	8.29	2.58	93.39
Last 5	10:03:47	1500.03	16.50	5.61	55.63	0.44	8.28	2.62	92.99
Last 5	10:08:47	1800.02	16.42	5.61	55.57	0.73	8.28	2.61	93.16
Variance 0			-0.18	-0.00	-0.25			-0.03	-0.41
Variance 1			-0.05	-0.00	0.18			0.04	-0.40
Variance 2			-0.08	-0.00	-0.06			-0.01	0.17

Notes

Stable parameters at 1010. 6 liters purged at 200 ml/min. Sample at 1020 at 200 ml/min. Weather sunny and breezy 55 degrees.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-02 13:21:43

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 58 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 49.1 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3488785 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 22 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	12:57:24	300.15	17.44	5.39	41.77	3.26	50.00	7.11	96.12
Last 5	13:02:24	600.03	17.13	5.41	41.04	1.30	50.00	7.22	92.18
Last 5	13:07:24	900.02	17.00	5.37	40.35	0.55	50.00	7.07	91.07
Last 5	13:12:24	1200.02	17.07	5.39	40.10	0.40	50.00	7.21	88.92
Last 5	13:17:24	1500.02	17.31	5.38	40.15	0.60	50.00	7.23	89.48
Variance 0			-0.13	-0.04	-0.69			-0.15	-1.11
Variance 1			0.08	0.02	-0.26			0.14	-2.16
Variance 2			0.24	-0.00	0.05			0.02	0.56

Notes

GWC-24 purged dry at 1320. Approximately 20 ml/ minute recharge. Parameters stable. Will allow to recharge and sample tomorrow

Grab Samples



Product Name: Low-Flow System

Date: 2017-02-06 15:32:47

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 61.1 ft

Pump placement from TOC 50.1 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 48.82 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5539931 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27.36 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	15:21:08	300.10	18.14	5.43	39.70	0.82	49.80	6.49	126.78
Last 5	15:26:08	600.02	17.72	5.36	38.96	0.41	0.00	6.63	122.03
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.42	-0.06	-0.74			0.14	-4.75
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Purged Dry at 1530. Will sample tomorrow morning.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-06 15:24:05

Project Information:

Operator Name Jim Morrison  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 45 ft

Pump placement from TOC 38 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 38.1 ft  
Screen Length 10 ft  
Depth to Water 30.45 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.290854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	15:06:22	300.12	18.53	6.05	126.39	6.20	32.65	6.01	117.00
Last 5	15:11:22	600.02	18.43	6.08	124.49	8.37	34.35	6.57	112.73
Last 5	15:16:22	900.02	18.51	6.07	123.58	8.18	35.62	6.48	108.98
Last 5	15:21:22	1200.02	18.87	6.04	134.88	--	--	5.85	107.53
Last 5									
Variance 0			-0.10	0.03	-1.90			0.56	-4.27
Variance 1			0.07	-0.01	-0.91			-0.09	-3.75
Variance 2			0.36	-0.03	11.31			-0.63	-1.46

Notes

Purging dry for radium sample collection

Well purged dry at 1522. Removed 10 liters at rate of 500 ml/min. Will allow overnight recharge and collect radium sample on 2/7/17.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 15:42:10

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 54.9 ft

Pump placement from TOC 44.9 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.9 ft  
Screen Length 10 ft  
Depth to Water 24.68 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.510042 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 32.88 in  
Total Volume Pumped 7.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	15:15:29	3300.10	14.90	5.31	20.36	5.48	27.47	6.94	128.10
Last 5	15:20:29	3600.09	15.22	5.30	20.28	5.00	27.48	6.90	127.80
Last 5	15:25:29	3900.10	15.35	5.29	20.31	4.32	27.48	6.93	126.32
Last 5	15:30:29	4200.09	15.40	5.28	20.20	2.89	27.44	6.85	125.48
Last 5	15:35:29	4500.09	15.67	5.25	20.09	3.16	27.42	6.84	127.12
Variance 0			0.13	-0.01	0.04			0.02	-1.49
Variance 1			0.05	-0.01	-0.11			-0.08	-0.84
Variance 2			0.28	-0.04	-0.11			-0.02	1.64

Notes

Weather: 52F Sunny. Purge Time: 1420/1535. FB-1 Collected.

Grab Samples

GWA-1  
Sample Time 1540

Product Name: Low-Flow System

Date: 2017-03-16 16:38:00

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 63 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.1 ft  
Screen Length 10 ft  
Depth to Water 46.98 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6211957 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 33.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	16:11:23	18899.77	17.42	5.78	63.07	19.90	47.05	7.94	122.48
Last 5	16:16:23	19199.77	17.81	5.75	62.94	19.30	47.05	7.87	125.04
Last 5	16:21:23	19499.77	17.77	5.76	63.15	17.40	47.05	7.88	127.32
Last 5	16:26:23	19799.77	17.39	5.76	62.54	17.80	47.05	7.85	126.15
Last 5	16:31:23	20099.77	17.51	5.78	63.06	18.50	47.05	7.87	125.68
Variance 0			-0.05	0.02	0.21			0.01	2.29
Variance 1			-0.38	-0.00	-0.61			-0.02	-1.17
Variance 2			0.12	0.02	0.52			0.02	-0.47

Notes

Begin purging at 1056. Stopped at 1635 due to time constraints. Well not sampled. Will continue purging on 3/17.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-17 10:34:44

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 63 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.1 ft  
Screen Length 10 ft  
Depth to Water 46.94 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6211957 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	10:12:56	1500.03	13.07	5.69	63.91	8.21	47.01	7.84	111.17
Last 5	10:17:56	1800.02	12.95	5.69	63.73	8.18	47.01	7.79	113.40
Last 5	10:22:56	2100.02	12.86	5.69	63.88	4.97	47.01	7.79	114.38
Last 5	10:27:56	2400.02	12.81	5.60	63.75	4.79	47.01	7.78	120.14
Last 5	10:32:56	2699.98	13.16	5.68	64.13	3.94	47.01	7.84	116.65
Variance 0			-0.09	-0.00	0.15			-0.01	0.98
Variance 1			-0.04	-0.09	-0.13			-0.01	5.75
Variance 2			0.35	0.08	0.38			0.06	-3.49

Notes

Begin purging well at 0947. Well stable at 1032. Sample at 1040. Sample rate 0.1L/min. Weather is cloudy.

Grab Samples

GWA-2  
1040

Product Name: Low-Flow System

Date: 2017-03-16 12:45:19

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Dedicated Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 45 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 40.16 ft  
Screen Length 10 ft  
Depth to Water 26.85 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.465854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.2 in  
Total Volume Pumped 20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	12:16:20	4800.08	14.77	6.12	251.53	6.37	27.19	0.38	37.76
Last 5	12:21:20	5100.08	14.72	6.12	249.61	5.92	27.19	0.38	38.76
Last 5	12:26:20	5400.08	14.67	6.11	249.22	4.91	27.19	0.37	39.12
Last 5	12:31:20	5700.08	14.81	6.10	246.30	4.26	27.19	0.39	40.42
Last 5	12:36:20	6000.08	14.90	6.10	246.96	4.17	27.20	0.38	40.16
Variance 0			-0.05	-0.01	-0.39			-0.01	0.36
Variance 1			0.14	-0.01	-2.92			0.02	1.31
Variance 2			0.09	0.00	0.66			-0.01	-0.27

Notes

Weather: 43F Sunny. Purge Time: 1055/1235.

Grab Samples

GWA-4  
Sample Time 1240

Product Name: Low-Flow System

Date: 2017-03-16 12:38:46

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 50 ft

Pump placement from TOC 40 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.64 ft  
Screen Length 10 ft  
Depth to Water 27.80 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.6881711 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 171 in  
Total Volume Pumped 33.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:40:01	3299.94	16.25	5.95	59.75	1.62	40.65	7.49	76.27
Last 5	11:45:01	3599.94	16.29	5.94	60.62	1.45	41.22	6.65	74.27
Last 5	11:50:01	3899.94	15.66	5.90	60.54	2.37	41.62	7.02	72.26
Last 5	11:55:01	4199.94	15.87	5.95	60.54	4.64	41.87	7.00	70.95
Last 5	12:00:01	4499.94	15.84	5.98	60.54	3.53	42.06	6.98	71.02
Variance 0			-0.63	-0.03	-0.07			0.37	-2.01
Variance 1			0.21	0.05	-0.00			-0.01	-1.31
Variance 2			-0.03	0.02	0.00			-0.03	0.07

Notes

1045 start purge at 500mL/min; 1140 lower intake 42.5ft btoc; 1145 reduce purge rate to 250mL/min; 1200 three well volumes purged, all parameters stable; 1205 sampled at 250mL/min. 45F Sunny, light breeze

Grab Samples

GWA-28  
Sampled at 1205

Product Name: Low-Flow System

Date: 2017-03-15 14:06:16

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 60 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.1 ft  
Screen Length 10 ft  
Depth to Water 42.21 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6078054 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.36 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:43:50	1800.03	16.29	5.87	74.55	4.85	42.24	6.45	81.08
Last 5	13:48:50	2100.03	16.53	5.87	74.30	6.21	42.24	6.24	82.05
Last 5	13:53:50	2400.02	16.30	5.85	74.30	4.51	42.24	6.27	84.13
Last 5	13:58:50	2700.03	16.19	5.87	73.38	4.53	42.24	6.18	85.23
Last 5	14:03:50	3000.03	16.15	5.86	73.45	4.21	42.25	6.23	87.10
Variance 0			-0.23	-0.02	0.01			0.03	2.08
Variance 1			-0.11	0.02	-0.92			-0.09	1.10
Variance 2			-0.03	-0.01	0.06			0.04	1.87

Notes

Begin purging at 1313. Well stable at 1403. Sample at 1410. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWA-29  
1410









Product Name: Low-Flow System

Date: 2017-03-23 11:41:59

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 25.64 ft

Pump placement from TOC 15.64 ft

Well Information:

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20.64 ft  
Screen Length 10 ft  
Depth to Water 10.71 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2044422 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	11:16:20	1500.04	17.31	6.03	321.03	0.60	10.42	1.02	79.71
Last 5	11:21:20	1800.04	17.70	6.02	323.15	0.33	10.42	1.04	83.57
Last 5	11:26:20	2100.04	17.50	5.98	324.35	0.52	10.42	0.84	83.56
Last 5	11:31:20	2400.04	17.90	5.97	324.82	0.73	10.42	0.82	86.44
Last 5	11:36:20	2700.08	18.17	5.95	322.87	0.40	10.42	0.72	88.33
Variance 0			-0.20	-0.04	1.20			-0.20	-0.01
Variance 1			0.40	-0.01	0.47			-0.01	2.88
Variance 2			0.27	-0.03	-1.95			-0.11	1.89

Notes

Weather: 60F Partly Cloudy, light wind. Purge Time: 1050/1135. FB-2 Collected

Grab Samples

GWC-8  
Sample Time 1140

Product Name: Low-Flow System

Date: 2017-03-23 13:43:07

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 24.4 ft

Pump placement from TOC 14.4 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.4 ft  
Screen Length 10 ft  
Depth to Water 7.01 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.1989075 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.32 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Stabilization									
Last 5	13:18:14	1200.03	17.91	5.96	378.80	6.44	7.32	0.15	6.02
Last 5	13:23:14	1500.03	18.04	5.97	376.02	6.32	7.33	0.11	7.18
Last 5	13:28:14	1800.04	18.01	5.96	372.44	3.94	7.35	0.10	8.06
Last 5	13:33:14	2100.03	17.95	5.97	374.32	3.63	7.35	0.10	9.25
Last 5	13:38:14	2400.03	17.70	5.97	376.38	3.84	7.37	0.10	9.90
Variance 0			-0.02	-0.00	-3.58			-0.01	0.88
Variance 1			-0.07	0.00	1.87			-0.00	1.19
Variance 2			-0.25	-0.00	2.06			0.00	0.64

Notes

Weather: 65F Mostly Sunny. Light Wind. Purge Time: 1258/1338

Grab Samples

GWC-9  
Sample Time 1340



Product Name: Low-Flow System

Date: 2017-03-23 10:52:02

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristalic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 22 ft

Pump placement from TOC 14 ft

Well Information:

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.8 ft  
Screen Length 10 ft  
Depth to Water 6.49 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3381953 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.4 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:29:28	1200.03	16.47	6.04	273.41	4.35	6.60	0.32	66.88
Last 5	10:34:28	1500.03	16.38	6.05	276.19	5.39	6.60	0.30	63.89
Last 5	10:39:28	1800.02	16.38	6.04	279.95	4.65	6.60	0.27	61.50
Last 5	10:44:28	2100.03	16.49	6.06	281.38	4.25	6.60	0.25	59.52
Last 5	10:49:28	2400.02	16.47	6.06	282.50	4.31	6.60	0.23	56.86
Variance 0			-0.00	-0.01	3.76			-0.03	-2.39
Variance 1			0.11	0.01	1.43			-0.02	-1.98
Variance 2			-0.02	0.01	1.12			-0.02	-2.65

Notes

Begin purging at 1009. Well stable at 1049. Sample at 1100. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWC-11  
1100

Product Name: Low-Flow System

Date: 2017-03-23 13:41:47

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 43 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.65 ft  
Screen Length 10 ft  
Depth to Water 26.43 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4319272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27.96 in  
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:19:21	2100.03	20.74	7.44	301.89	1.37	28.71	2.01	-31.44
Last 5	13:24:21	2400.02	20.78	7.43	304.74	1.04	28.76	1.75	-33.79
Last 5	13:29:21	2700.02	20.99	7.41	302.83	0.65	28.76	1.56	-36.48
Last 5	13:34:21	3000.03	21.14	7.43	302.69	0.81	28.76	1.42	-38.95
Last 5	13:39:21	3299.98	20.75	7.41	305.23	0.92	28.76	1.48	-39.19
Variance 0			0.22	-0.02	-1.90			-0.18	-2.69
Variance 1			0.15	0.02	-0.14			-0.14	-2.47
Variance 2			-0.39	-0.02	2.54			0.06	-0.23

Notes

Begin purging at 1249. Well stable at 1339. Sample at 1350. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWC-12  
1350



Product Name: Low-Flow System

Date: 2017-03-23 15:55:53

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 93 ft

Pump placement from TOC 85 ft

Well Information:

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 90.4 ft  
Screen Length 10 ft  
Depth to Water 6.45 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.6550984 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.4 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:32:51	1200.02	18.57	7.04	59.56	0.52	6.65	3.85	-9.26
Last 5	15:37:51	1500.02	18.39	6.98	59.59	0.37	6.66	3.94	-8.11
Last 5	15:42:51	1800.02	18.29	6.92	59.68	0.43	6.67	4.07	-5.71
Last 5	15:47:51	2100.02	18.17	6.87	59.71	0.59	6.68	4.18	-3.64
Last 5	15:52:51	2400.02	18.08	6.85	59.46	0.49	6.68	4.35	-1.61
Variance 0			-0.10	-0.07	0.09			0.13	2.40
Variance 1			-0.12	-0.04	0.03			0.12	2.07
Variance 2			-0.09	-0.02	-0.25			0.16	2.03

Notes

Begin purging at 1512. Well stable at 1552. Sample at 1555. Sample rate 0.25L/min. Weather is cloudy.

Grab Samples

GWC-13  
1555

Product Name: Low-Flow System

Date: 2017-03-23 15:36:11

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 29.6 ft

Pump placement from TOC 19.6 ft

Well Information:

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 24.6 ft  
Screen Length 10 ft  
Depth to Water 9.75 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2221173 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.84 in  
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Stabilization									
Last 5	15:10:32	2400.03	18.53	5.42	289.96	3.94	9.82	0.10	92.25
Last 5	15:15:32	2700.03	18.44	5.42	288.04	5.40	9.82	0.10	89.14
Last 5	15:20:32	3000.03	18.08	5.40	308.76	3.16	9.82	0.09	92.80
Last 5	15:25:32	3300.03	18.03	5.44	292.10	2.80	9.82	0.09	86.94
Last 5	15:30:32	3600.03	18.28	5.41	304.29	3.30	9.82	0.08	89.81
Variance 0			-0.36	-0.02	20.72			-0.01	3.66
Variance 1			-0.04	0.03	-16.66			-0.00	-5.86
Variance 2			0.25	-0.02	12.19			-0.00	2.86

Notes

Weather: 60 Mostly Cloudy. Purge Time: 1430/1530. Extra Radium Collected.

Grab Samples

GWC-14  
Sample Time 1535



Product Name: Low-Flow System

Date: 2017-03-24 09:33:27

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 32.06 ft

Pump placement from TOC 22.6 ft

Well Information:

Well ID GWC-16  
Well diameter 2 in  
Well Total Depth 27.06 ft  
Screen Length 10 ft  
Depth to Water 10.51 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2330973 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.08 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	09:08:45	300.10	16.97	6.54	115.53	0.35	10.60	3.80	131.02
Last 5	09:13:45	600.03	16.98	6.15	99.79	0.54	10.60	3.96	130.29
Last 5	09:18:45	900.03	16.96	6.04	98.30	0.49	10.60	3.93	126.93
Last 5	09:23:45	1200.02	17.00	6.01	97.10	0.37	10.60	3.93	124.92
Last 5	09:28:45	1500.02	17.10	5.99	97.30	0.32	10.60	3.93	123.28
Variance 0			-0.01	-0.10	-1.49			-0.02	-3.35
Variance 1			0.04	-0.03	-1.20			-0.01	-2.01
Variance 2			0.10	-0.02	0.20			0.00	-1.64

Notes

Weather: 59F Cloudy. Purge Time: 0903/0928.

Grab Samples

GWC-16  
Sample Time 0930

Product Name: Low-Flow System

Date: 2017-03-24 10:15:18

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 56 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.3 ft  
Screen Length 10 ft  
Depth to Water 20.52 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4899517 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 20.04 in  
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	09:52:04	600.02	17.49	6.43	112.33	3.15	21.77	0.84	81.81
Last 5	09:57:04	900.02	17.56	6.36	113.32	4.91	22.10	0.75	83.36
Last 5	10:02:04	1199.98	17.62	6.38	113.18	1.87	22.16	1.95	82.98
Last 5	10:07:04	1499.98	17.59	6.36	112.93	4.37	22.18	2.09	84.82
Last 5	10:12:04	1799.98	17.62	6.34	112.94	2.71	22.19	2.13	86.76
Variance 0			0.06	0.02	-0.14			1.20	-0.38
Variance 1			-0.03	-0.02	-0.25			0.14	1.84
Variance 2			0.03	-0.02	0.00			0.04	1.94

Notes

Begin purging at 0942. Initial purge rate 0.25L/min. Lower purge rate to 0.2L/min due to drawdown at 0957. Well stable at 1012. Sample at 1022. Sample rate 0.2L/min. Weather is cloudy.

Grab Samples

GWC-17  
1022

Product Name: Low-Flow System

Date: 2017-03-24 10:33:23

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 34.77 ft

Pump placement from TOC 24.77 ft

Well Information:

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 29.77 ft  
Screen Length 10 ft  
Depth to Water 13.60 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2451932 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.48 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	10:14:43	300.09	16.22	5.89	94.87	0.53	13.64	1.68	116.35
Last 5	10:19:43	600.03	16.11	5.87	94.93	0.51	13.64	1.39	109.06
Last 5	10:24:43	900.02	16.16	5.86	94.93	0.79	13.64	1.31	106.37
Last 5	10:29:43	1200.03	16.21	5.85	94.83	0.68	13.64	1.30	105.07
Last 5									
Variance 0			-0.10	-0.02	0.06			-0.28	-7.28
Variance 1			0.05	-0.01	-0.00			-0.08	-2.69
Variance 2			0.05	-0.01	-0.09			-0.01	-1.30

Notes

Weather: 60F Cloudy. Purge Time: 1010/1030.

Grab Samples

GWC-18  
Sample Time 1030

Product Name: Low-Flow System

Date: 2017-03-24 12:14:20

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 40 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.5 ft  
Screen Length 10 ft  
Depth to Water 8.32 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2685369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 20 in  
Total Volume Pumped 13.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:40:34	3599.94	16.69	5.82	92.03	11.63	9.83	0.11	55.69
Last 5	11:45:34	3899.94	16.73	5.81	89.70	9.92	9.65	0.11	54.71
Last 5	11:50:34	4199.94	16.78	5.80	87.06	4.16	9.96	0.11	54.40
Last 5	11:55:34	4499.94	16.83	5.81	89.27	1.90	9.97	0.10	54.04
Last 5	12:00:35	4800.94	16.87	5.82	88.42	2.71	9.98	0.10	53.17
Variance 0			0.05	-0.01	-2.64			-0.00	-0.31
Variance 1			0.05	0.02	2.22			-0.01	-0.36
Variance 2			0.04	0.00	-0.86			-0.01	-0.88

Notes

1040 start purge at 200mL/min; 1105 decrease purge rate to 100mL/min, SmarTroll did not log readings; 1130 increase purge rate to 200mL/min; 1200 all parameters stable; 1205 sampled at 200mL/min. 66F Mostly Cloudy, light breeze

Grab Samples

GWC-19  
Sampled at 1205

Product Name: Low-Flow System

Date: 2017-03-28 10:59:10

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 76 ft

Pump placement from TOC 66 ft

Well Information:

Well ID GWC-20  
Well diameter 2 in  
Well Total Depth 71 ft  
Screen Length 10 ft  
Depth to Water 6.84 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.4292202 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.68 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Stabilization									
Last 5	10:34:47	600.03	17.54	6.06	111.69	6.43	6.96	1.07	95.67
Last 5	10:39:47	900.03	17.55	6.03	111.81	6.25	6.98	1.05	92.42
Last 5	10:44:47	1200.03	17.51	6.02	111.43	4.11	6.98	1.05	90.35
Last 5	10:49:47	1500.03	17.43	6.02	111.73	3.13	6.98	1.01	88.06
Last 5	10:54:47	1800.03	17.29	6.01	111.30	2.71	6.98	1.03	86.06
Variance 0			-0.03	-0.01	-0.38			0.00	-2.07
Variance 1			-0.09	-0.00	0.30			-0.04	-2.29
Variance 2			-0.13	-0.00	-0.43			0.02	-2.00

Notes

Weather: 68F Sunny. Purge Time: 1025/1055.

Grab Samples

GWC-20  
Sample Time 1100



Product Name: Low-Flow System

Date: 2017-03-28 12:24:45

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 43 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.3 ft  
Screen Length 10 ft  
Depth to Water 16.71 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2819272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 25.32 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	11:59:19	900.02	18.95	5.36	46.40	1.02	18.36	1.39	183.77
Last 5	12:04:19	1200.02	19.04	5.35	46.73	1.21	18.57	1.36	183.71
Last 5	12:09:19	1500.02	19.23	5.34	46.72	1.02	18.70	1.28	170.04
Last 5	12:14:19	1800.02	18.84	5.35	46.54	0.99	18.78	1.20	158.02
Last 5	12:19:19	2100.02	18.66	5.36	46.80	0.92	18.82	1.13	149.01
Variance 0			0.19	-0.01	-0.01			-0.08	-13.67
Variance 1			-0.40	0.01	-0.18			-0.08	-12.02
Variance 2			-0.18	0.02	0.26			-0.06	-9.01

Notes

Weather: 73F partly cloudy. Purge Time: 1145/1220

Grab Samples

GWC-21  
Sample Time 1225

Product Name: Low-Flow System

Date: 2017-03-28 11:51:57

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 80 ft

Pump placement from TOC 72 ft

Well Information:

Well ID GWC-22  
Well diameter 2 in  
Well Total Depth 77.59 ft  
Screen Length 10 ft  
Depth to Water 28.49 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6970739 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5.04 in  
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	11:29:19	2699.98	19.68	6.87	128.58	3.09	28.75	3.27	106.69
Last 5	11:34:19	2999.98	20.13	6.86	129.26	5.05	28.75	3.25	107.67
Last 5	11:39:19	3299.98	19.77	6.87	128.48	3.99	28.75	3.20	108.78
Last 5	11:44:19	3599.98	19.61	6.86	129.15	3.20	28.75	3.23	109.76
Last 5	11:49:19	3899.98	19.65	6.87	129.05	2.33	28.75	3.24	109.98
Variance 0			-0.35	0.01	-0.78			-0.05	1.10
Variance 1			-0.17	-0.01	0.68			0.02	0.99
Variance 2			0.04	0.01	-0.11			0.02	0.22

Notes

Begin purging at 1044. Purge rate 0.1L/min. Well stable at 1149. Sample at 1155. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWC-22  
1155

Product Name: Low-Flow System

Date: 2017-03-28 11:31:48

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 70 ft

Pump placement from TOC 62 ft

Well Information:

Well ID GWC-23  
Well diameter 2 in  
Well Total Depth 67.29 ft  
Screen Length 10 ft  
Depth to Water 38.61 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.7774396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 16 in  
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:55:01	300.12	19.01	6.52	47.14	5.10	39.10	5.07	71.43
Last 5	11:00:01	600.03	18.30	5.96	46.75	2.98	39.70	5.00	58.56
Last 5	11:05:01	900.03	18.48	5.88	46.55	2.02	39.84	5.11	53.84
Last 5	11:10:01	1200.03	18.61	5.87	46.64	1.77	39.87	5.17	51.50
Last 5	11:15:01	1500.03	18.52	5.86	47.18	1.41	39.89	5.21	50.52
Variance 0			0.18	-0.08	-0.19			0.11	-4.71
Variance 1			0.13	-0.01	0.09			0.06	-2.35
Variance 2			-0.09	-0.01	0.54			0.03	-0.97

Notes

1050 start purge at 250mL/min; 1115 all parameters stable; 1120 sampled at 250mL/min. 72F Cloudy

Grab Samples

GWC-23  
Sampled at 1120

Product Name: Low-Flow System

Date: 2017-03-28 14:28:19

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Wansley  
Site Name Gypsum Storage  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449622  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 59 ft

Pump placement from TOC 50.5 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 48.05 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6033419 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 36.6 in  
Total Volume Pumped 5.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:02:15	2099.96	20.70	5.91	40.97	--	--	6.57	147.69
Last 5	14:07:15	2399.96	22.32	5.89	40.89	1.03	49.55	6.57	150.57
Last 5	14:12:15	2699.96	20.17	5.92	39.82	--	--	6.24	155.47
Last 5	14:17:15	2999.96	19.60	5.90	40.56	--	--	6.34	158.27
Last 5	14:22:15	3299.96	19.18	5.87	40.30	--	--	6.27	163.37
Variance 0			-2.15	0.04	-1.06			-0.33	4.89
Variance 1			-0.57	-0.03	0.74			0.10	2.81
Variance 2			-0.43	-0.03	-0.26			-0.07	5.10

Notes

Begin purging at 1327. Purge 3 well volumes since DTW was below top of screen. Purge rate 0.1L/min. Well went dry at 1425. Weather is sunny.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-22 12:51:14

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 56 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 57.98 ft  
Screen Length 10 ft  
Depth to Water 52.37 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.7551225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 60 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:20:22	1801.03	17.10	5.90	101.82	0.95	54.88	3.56	49.02
Last 5	12:25:22	2101.02	17.27	6.06	111.18	0.75	55.40	2.55	49.56
Last 5	12:30:22	2401.02	17.40	6.12	115.07	0.65	55.82	2.15	49.11
Last 5	12:35:22	2701.02	17.14	6.12	118.57	0.53	56.23	1.79	50.09
Last 5	12:40:22	3000.86	16.92	6.16	126.13	0.58	--	1.11	50.67
Variance 0			0.13	0.06	3.89			-0.40	-0.45
Variance 1			-0.26	-0.00	3.50			-0.36	0.98
Variance 2			-0.22	0.05	7.56			-0.68	0.57

Notes

1150 start purge at 200mL/min; 1243 well dry.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-23 10:11:16

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 57 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 57.98 ft  
Screen Length 10 ft  
Depth to Water 52.44 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.7551225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:50:02	300.15	15.14	7.25	154.15	1.01	52.75	2.36	92.44
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

0945 start purge at 200mL/min; 0950 turbidity NTU less than 5; 0955 sampled at 200mL/min. 56F Partly Cloudy and windy

Grab Samples

GWC-25  
Sampled at 0955

Product Name: Low-Flow System

Date: 2017-03-16 14:24:07

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 60 ft

Pump placement from TOC 54 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.96 ft  
Screen Length 10 ft  
Depth to Water 33.65 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.7328054 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 38 in  
Total Volume Pumped 8.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:50:15	900.02	15.51	5.59	48.59	7.42	36.15	7.19	81.76
Last 5	13:55:15	1200.03	15.66	5.60	48.64	6.36	36.47	7.13	81.73
Last 5	14:00:15	1500.03	16.18	5.62	49.05	4.07	36.63	7.07	81.02
Last 5	14:05:15	1800.03	16.04	5.59	48.25	3.96	36.70	7.15	81.47
Last 5	14:10:15	2100.03	16.16	5.58	47.76	2.81	36.76	7.18	81.83
Variance 0			0.51	0.02	0.41			-0.06	-0.71
Variance 1			-0.13	-0.03	-0.81			0.07	0.45
Variance 2			0.12	-0.01	-0.49			0.04	0.36

Notes

1335 start purge at 250mL/min; 1410 all parameters stable; 1415 sampled at 250mL/min. 52F Sunny

Grab Samples

GWC-26  
Sampled at 1415

Product Name: Low-Flow System

Date: 2017-03-16 16:08:29

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 70 ft

Pump placement from TOC 65 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.8 ft  
Screen Length 10 ft  
Depth to Water 46.55 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.7774396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 33 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:40:03	600.05	15.77	5.35	26.73	9.90	46.70	5.38	88.59
Last 5	15:45:03	900.05	15.52	5.33	27.03	3.20	48.40	5.21	89.78
Last 5	15:50:03	1200.05	15.48	5.33	27.08	1.93	48.92	5.15	91.18
Last 5	15:55:03	1500.05	15.49	5.34	27.66	1.02	49.08	4.96	87.75
Last 5	16:00:03	1800.05	15.48	5.37	28.23	0.97	49.30	5.02	87.59
Variance 0			-0.04	-0.00	0.05			-0.05	1.40
Variance 1			0.01	0.01	0.59			-0.19	-3.43
Variance 2			-0.01	0.03	0.57			0.06	-0.16

Notes

1530 start purge at 250mL/min; 1600 all parameters stable; 1605 sampled at 250mL/min. 56F Sunny, light breeze

Grab Samples

GWC-27  
Sampled at 1605



Product Name: Low-Flow System

Date: 2017-03-17 12:35:00

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 55 ft

Pump placement from TOC 44.6 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.6 ft  
Screen Length 10 ft  
Depth to Water 27.59 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.7104883 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 63 in  
Total Volume Pumped 27 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:55:02	5399.89	16.56	5.96	51.18	6.24	32.84	6.07	86.43
Last 5	12:00:02	5699.89	16.57	5.93	51.15	5.39	32.83	6.07	88.21
Last 5	12:05:02	5999.89	16.64	5.93	51.06	4.43	32.81	6.03	85.02
Last 5	12:10:02	6299.89	16.74	5.94	50.93	4.96	32.83	6.02	85.15
Last 5	12:15:02	6599.90	16.83	5.94	50.89	3.82	32.83	6.01	85.91
Variance 0			0.08	-0.00	-0.09			-0.04	-3.19
Variance 1			0.10	0.01	-0.13			-0.00	0.13
Variance 2			0.09	-0.00	-0.04			-0.01	0.76

Notes

1025 start purge at 250mL/min; 1100 decrease purge rate to 100mL/min; 1110 increase purge rate to 250; 1215 all parameters stable; 1220 sampled at 250mL/min. 54F Party cloudy, light breeze.

Grab Samples

GWC-30  
Sampled at 1220  
DUP-1  
Sampled at 1220

Product Name: Low-Flow System

Date: 2017-03-22 15:07:20

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 45 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 32.01 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.665854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 58 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:30:48	300.08	17.72	6.07	131.58	3.52	32.97	6.16	35.25
Last 5	14:35:48	600.03	17.99	6.00	131.56	3.90	34.14	6.40	32.29
Last 5	14:40:48	900.02	18.08	5.99	134.23	2.77	35.48	6.47	29.95
Last 5	14:45:48	1200.02	18.22	6.01	132.49	2.21	--	6.17	28.05
Last 5									
Variance 0			0.27	-0.07	-0.02			0.24	-2.96
Variance 1			0.09	-0.02	2.67			0.07	-2.34
Variance 2			0.14	0.02	-1.73			-0.30	-1.89

Notes

1425 start purge at 250mL/min; 1446 well dry

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-28 12:36:15

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 45 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 35.28 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.665854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19 in  
Total Volume Pumped 1.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:25:04	299.89	19.59	6.06	138.42	1.83	36.57	4.44	45.13
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

1220 start purge at 250mL/min; 1227 well dry.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-23 13:16:35

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 40 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.1 ft  
Screen Length 10 ft  
Depth to Water 25.45 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2685369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 72 in  
Total Volume Pumped 14.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:30:22	1800.03	18.26	6.25	113.74	0.98	29.39	5.82	59.74
Last 5	12:35:22	2100.02	18.97	6.25	116.16	0.42	29.77	4.68	58.27
Last 5	12:40:22	2400.03	18.84	6.23	114.69	0.46	30.10	4.25	58.44
Last 5	12:50:22	2999.87	19.43	6.26	113.11	0.33	30.82	3.25	56.14
Last 5	12:55:22	3299.87	19.80	6.26	114.57	0.89	31.42	2.53	54.87
Variance 0			-0.13	-0.01	-1.47			-0.43	0.17
Variance 1			0.59	0.03	-1.58			-1.00	-2.30
Variance 2			0.37	0.00	1.45			-0.71	-1.26

Notes

1200 start purge at 100mL/min; 1210 increase purge rate to 500mL/min; 1220 purge rate slowed to 400mL/min; 1225 purge rate slowed to 250mL/min; 1230 purge rate slowed to 150mL/min; 1250 purge rate slowed to 100mL/min; 1256 well dry

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-24 10:03:26

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 40 ft

Pump placement from TOC 28 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 31.47 ft  
Screen Length 10 ft  
Depth to Water 26.07 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2685369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:55:03	300.10	17.14	6.56	153.51	1.65	26.44	2.38	68.21
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

0950 start purge at 200mL/min; 0955 turbidity NTUs less than 5; 1000 sampled at 200mL/min. 59F Overcast, windy

Grab Samples

GWC-32  
Sampled at 1000

Product Name: Low-Flow System

Date: 2017-03-22 11:40:50

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 28.46 ft

Pump placement from TOC 18.46 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.46 ft  
Screen Length 10 ft  
Depth to Water 13.68 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.217029 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 281.52 in  
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	11:15:06	4799.97	19.17	6.08	187.13	--	--	6.63	102.67
Last 5	11:20:06	5099.97	19.45	6.10	185.80	--	--	5.82	100.20
Last 5	11:25:06	5399.97	19.77	6.14	184.24	--	--	4.64	96.07
Last 5	11:30:06	5699.97	19.59	6.16	184.15	--	--	4.13	93.34
Last 5	11:35:06	5999.90	19.19	6.18	184.53	0.99	22.35	4.74	94.66
Variance 0			0.33	0.04	-1.56			-1.17	-4.13
Variance 1			-0.18	0.03	-0.09			-0.51	-2.72
Variance 2			-0.40	0.02	0.38			0.61	1.31

Notes

Well purged dry at 1138.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-22 12:59:29

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 55.80 ft

Pump placement from TOC 45.80 ft

Well Information:

Well ID GWC-34  
Well diameter 2 in  
Well Total Depth 50.80 ft  
Screen Length 10 ft  
Depth to Water 4.80 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.339059 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.04 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Stabilization									
Last 5	12:34:55	1200.02	18.76	5.80	51.95	0.19	4.97	3.82	100.75
Last 5	12:39:55	1500.02	18.29	5.73	50.90	0.15	4.97	4.18	102.14
Last 5	12:44:55	1800.02	18.46	5.68	50.89	0.51	4.97	4.56	104.34
Last 5	12:49:55	2100.02	18.38	5.67	50.93	1.00	4.97	4.78	104.20
Last 5	12:54:55	2400.02	18.30	5.66	50.86	0.68	4.97	4.80	104.89
Variance 0			0.16	-0.04	-0.01			0.38	2.20
Variance 1			-0.07	-0.01	0.04			0.21	-0.14
Variance 2			-0.08	-0.00	-0.07			0.02	0.70

Notes

Weather: 62F Mostly Cloudy. Purge Time: 1215/1255. DUP-2 collected

Grab Samples

GWC-34  
Sample Time 1300  
DUP-2  
Qa/Qc

Product Name: Low-Flow System

Date: 2017-03-22 14:29:51

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 45.33 ft

Pump placement from TOC 35.33 ft

Well Information:

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.33 ft  
Screen Length 10 ft  
Depth to Water 8.38 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.292327 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.36 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10%
Last 5	14:06:20	300.09	18.29	5.61	59.75	0.87	8.41	1.43	100.17
Last 5	14:11:20	600.02	17.34	5.51	54.53	1.17	8.41	2.29	99.61
Last 5	14:16:20	900.03	17.22	5.46	52.56	0.86	8.41	2.60	102.22
Last 5	14:21:20	1200.03	17.27	5.43	51.99	0.58	8.41	2.70	103.21
Last 5	14:26:20	1500.02	17.23	5.42	51.70	0.45	8.41	2.76	104.05
Variance 0			-0.11	-0.06	-1.97			0.30	2.60
Variance 1			0.05	-0.02	-0.57			0.11	1.00
Variance 2			-0.04	-0.02	-0.29			0.05	0.84

Notes

Weather: 61F Cloudy. Purge Time: 1400/1425. Extra Radium Collected

Grab Samples

GWC-35  
Sample Time 1430



Product Name: Low-Flow System

Date: 2017-04-28 11:09:16

Project Information:

Operator Name T.Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Bladder QED  
Tubing Type Dual LDPE  
Tubing Diameter 0.17 in  
Tubing Length 55 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.9 ft  
Screen Length 10 ft  
Depth to Water 23.59 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4654883 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 24 in  
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:46:00	5399.93	22.46	5.36	20.81	5.24	25.60	5.84	64.02
Last 5	10:51:00	5699.93	22.80	5.36	20.90	4.51	25.57	5.82	64.28
Last 5	10:56:00	5999.93	21.38	5.36	20.19	4.53	25.58	6.06	66.38
Last 5	11:01:01	6299.98	22.53	5.37	20.55	4.87	25.59	6.01	64.07
Last 5	11:06:00	6599.85	21.42	5.35	20.48	3.96	25.59	6.11	66.22
Variance 0			-1.42	-0.01	-0.71			0.24	2.10
Variance 1			1.15	0.01	0.36			-0.05	-2.31
Variance 2			-1.11	-0.02	-0.07			0.10	2.15

Notes

Purge started at 0916. Purge rate at 100 ml/min. Weather - overcast 67F.  
Parameters stable at 1106. Well sampled at 1115. Sample rate at 100 ml/min. FB-1 sample taken. Weather - overcast 70F.

Grab Samples

GWA-1  
Sampled at 1115  
FB-1  
--

Product Name: Low-Flow System

Date: 2017-04-28 11:32:05

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 63 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.1 ft  
Screen Length 10 ft  
Depth to Water 46.21 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5179799 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.96 in  
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	11:09:47	5400.96	20.66	5.76	66.32	8.45	46.29	7.17	103.84
Last 5	11:14:47	5700.96	21.46	5.78	66.30	5.81	46.29	7.06	103.09
Last 5	11:19:47	6000.96	22.13	5.79	66.13	3.77	46.29	6.90	102.82
Last 5	11:24:47	6300.96	22.40	5.78	65.97	4.90	46.29	6.82	103.71
Last 5	11:29:47	6600.96	22.58	5.77	66.06	4.46	46.29	6.81	107.72
Variance 0			0.67	0.01	-0.17			-0.15	-0.27
Variance 1			0.27	-0.01	-0.16			-0.09	0.90
Variance 2			0.18	-0.01	0.10			-0.01	4.01

Notes

Begin purging at 0939. Well stable at 1129. Sample at 1135. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWA-2  
1135



Product Name: Low-Flow System

Date: 2017-04-27 16:13:48

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 48 ft

Pump placement from TOC 40 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.64 ft  
Screen Length 10 ft  
Depth to Water 25.81 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.4470322 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 173.76 in  
Total Volume Pumped 43.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:50:20	5999.78	18.46	5.96	60.02	--	--	7.69	71.72
Last 5	15:55:20	6299.78	18.30	5.96	60.13	--	--	7.61	69.57
Last 5	16:00:20	6599.68	18.66	5.99	60.51	1.42	40.21	7.47	71.14
Last 5	16:05:20	6899.68	18.79	5.96	59.22	1.23	40.31	7.38	71.73
Last 5	16:10:20	7199.68	18.79	5.96	58.83	1.20	30.31	7.36	70.89
Variance 0			0.36	0.03	0.38			-0.15	1.57
Variance 1			0.13	-0.03	-1.29			-0.09	0.59
Variance 2			-0.00	0.00	-0.39			-0.01	-0.84

Notes

Begin purging at 1410. Initial purge rate 0.1L/min. Switched to 3 well volumes at 1510. Significant drawdown at 0.1L/min and well historically requires 3 well volumes. 3 well volumes purged at 0.5L/min. Purge rate lowered to 0.25L/min after 3rd well volume. Well stable at 1610. Sample at 1615. Weather is sunny.

Grab Samples  
GWA-28  
1615

Product Name: Low-Flow System

Date: 2017-04-27 14:11:09

Project Information:

Operator Name T.Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Bladder QED  
Tubing Type Dual LDPE  
Tubing Diameter 0.375 in  
Tubing Length 62 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.1 ft  
Screen Length 10 ft  
Depth to Water 43.50 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 1.566556 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.4 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:47:46	1499.34	20.57	5.83	80.33	4.44	43.51	5.98	58.66
Last 5	13:52:46	1799.34	22.02	5.84	78.94	3.84	43.52	5.73	57.31
Last 5	13:57:46	2099.34	20.92	5.84	79.62	3.80	43.52	5.86	58.60
Last 5	14:02:46	2399.34	20.70	5.85	79.34	3.55	43.51	5.86	59.17
Last 5	14:07:46	2699.34	20.39	5.85	79.64	3.49	43.52	5.89	59.62
Variance 0			-1.10	-0.00	0.68			0.13	1.29
Variance 1			-0.22	0.01	-0.28			0.01	0.57
Variance 2			-0.31	0.00	0.30			0.03	0.45

Notes

Purge rate at 100 ml/min. Purge started at 1323. Weather - overcast and slightly windy 70F.  
Parameters stable at 1408. Well sampled at 1415. Sample rate at 100 ml/min. Weather - overcast and slightly windy 70 F.

Grab Samples

GWA-29  
Sampled at 1415

Product Name: Low-Flow System

Date: 2017-05-02 09:49:49

Project Information:

Operator Name T.Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 45 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-5  
Well diameter 2 in  
Well Total Depth 40.7 ft  
Screen Length 10 ft  
Depth to Water 18.79 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.290854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 15.72 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:25:01	600.03	17.05	6.99	358.66	1.50	19.76	0.40	36.03
Last 5	09:30:01	900.03	17.28	7.05	357.81	0.58	19.83	0.34	25.01
Last 5	09:35:01	1200.03	17.36	7.05	355.77	0.61	19.90	0.30	19.44
Last 5	09:40:01	1500.03	17.49	7.02	356.96	0.64	20.06	0.27	14.54
Last 5	09:45:01	1800.03	17.78	6.98	355.88	0.52	20.10	0.27	12.17
Variance 0			0.08	0.00	-2.04			-0.04	-5.57
Variance 1			0.14	-0.03	1.19			-0.02	-4.90
Variance 2			0.29	-0.05	-1.08			-0.01	-2.37

Notes

Purge started at 0915. Purge rate at 100 ml/min. Weather - clear / sunny 70F.

Parameters stable at 0945. Well sampled at 1000. Sample rate of 100 ml/min. Weather - clear / sunny 70 F.

Grab Samples

GWC-5  
Sampled at 1000

Product Name: Low-Flow System

Date: 2017-05-02 11:36:05

Project Information:

Operator Name T.Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 36 ft

Pump placement from TOC 26 ft

Well Information:

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 31.1 ft  
Screen Length 10 ft  
Depth to Water 18.45 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2506832 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.2 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:11:01	600.03	20.56	5.88	175.12	0.73	18.54	0.56	42.29
Last 5	11:16:01	900.03	20.41	5.85	176.26	0.74	18.54	0.40	46.24
Last 5	11:21:01	1200.03	20.43	5.86	180.72	0.59	18.54	0.33	49.72
Last 5	11:26:01	1500.03	20.61	5.86	181.85	0.73	18.55	0.30	53.23
Last 5	11:31:01	1800.03	20.87	5.86	182.12	0.71	18.55	0.30	56.55
Variance 0			0.02	0.00	4.46			-0.06	3.48
Variance 1			0.18	0.00	1.13			-0.03	3.51
Variance 2			0.27	-0.00	0.27			0.00	3.32

Notes

Purge started at 1101. Purge rate of 100 ml/min. Weather - clear / sunny 73F.

Parameters stable at 1131. Well sampled at 1140. Sample rate of 100 ml/min. 2nd Rad sample taken for QA/QC. Weather - sunny/ clear 73F.

Grab Samples

GWC-6  
Sampled at 1140  
GWC-6 2nd Rad  
Sampled at 1140



Product Name: Low-Flow System

Date: 2017-05-02 10:28:47

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 30 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 25.9 ft  
Screen Length 10 ft  
Depth to Water 8.78 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2239027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 70.44 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	10:04:11	3599.97	19.83	6.32	729.66	0.51	13.96	0.14	65.83
Last 5	10:09:11	3899.97	20.01	6.32	725.46	0.85	14.17	0.17	66.65
Last 5	10:14:11	4199.97	20.06	6.32	726.14	0.37	14.36	0.17	67.15
Last 5	10:19:11	4499.97	20.14	6.32	721.40	1.00	14.52	0.21	67.78
Last 5	10:24:11	4799.97	20.32	6.32	720.41	0.83	14.65	0.20	68.46
Variance 0			0.05	-0.00	0.68			0.00	0.50
Variance 1			0.08	0.00	-4.74			0.04	0.63
Variance 2			0.18	0.00	-0.99			-0.01	0.68

Notes

Weather: 66F Sunny light breeze. Purge Time: 0905/1025. FERB-2 collected

Grab Samples

GWC-7  
Sample Time 1025

Product Name: Low-Flow System

Date: 2017-05-02 13:09:20

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 25 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20.0 ft  
Screen Length 10 ft  
Depth to Water 10.35 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2015856 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 117.24 in  
Total Volume Pumped 19.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	12:45:33	4799.92	20.27	6.10	354.93	8.49	18.80	0.25	67.64
Last 5	12:50:33	5099.91	20.36	6.10	356.43	7.71	19.01	0.22	67.62
Last 5	12:55:33	5399.92	20.39	6.10	355.77	6.58	19.17	0.78	69.09
Last 5	13:00:33	5699.92	19.77	6.10	354.20	7.56	19.43	0.20	69.62
Last 5	13:05:33	5999.92	18.21	6.11	359.13	8.91	20.12	0.28	70.91
Variance 0			0.03	-0.01	-0.66			0.56	1.47
Variance 1			-0.62	0.01	-1.57			-0.59	0.53
Variance 2			-1.57	0.00	4.93			0.09	1.29

Notes

Purged Dry @ 1305

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-02 14:01:08

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 22 ft

Pump placement from TOC 14.5 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.4 ft  
Screen Length 10 ft  
Depth to Water 7.05 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.1940564 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.92 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	13:39:22	600.03	20.57	6.10	287.46	7.15	7.35	0.14	6.55
Last 5	13:44:22	900.03	20.48	6.10	285.32	5.04	7.39	0.13	5.89
Last 5	13:49:22	1200.03	20.42	6.10	284.35	3.62	7.44	0.12	4.89
Last 5	13:54:22	1500.03	20.40	6.11	285.27	1.46	7.46	0.11	4.62
Last 5	13:59:22	1800.03	20.48	6.11	286.74	1.18	7.46	0.10	4.12
Variance 0			-0.06	0.00	-0.97			-0.01	-0.99
Variance 1			-0.03	0.00	0.92			-0.01	-0.28
Variance 2			0.09	0.00	1.47			-0.01	-0.49

Notes

Begin purging at 1329. Well stable at 1359. Sample at 1405. Sample rate 0.2L/min. Weather is sunny.

Grab Samples

GWC-9  
1405

Product Name: Low-Flow System

Date: 2017-05-02 14:37:54

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 26 ft

Pump placement from TOC 16 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 21.71 ft  
Screen Length 10 ft  
Depth to Water 12.00 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.206049 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 112.08 in  
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	14:15:02	1199.98	18.93	6.58	235.43	8.28	17.08	0.71	53.22
Last 5	14:20:02	1499.98	18.97	6.62	224.37	--	--	1.83	52.39
Last 5	14:25:02	1799.98	19.08	6.61	244.78	--	--	1.78	54.87
Last 5	14:30:02	2099.98	19.19	6.64	237.78	27.00	20.36	1.05	53.26
Last 5	14:35:02	2399.98	18.79	6.69	229.75	8.16	21.34	0.48	45.95
Variance 0			0.11	-0.01	20.41			-0.05	2.48
Variance 1			0.11	0.04	-7.00			-0.73	-1.61
Variance 2			-0.40	0.05	-8.03			-0.58	-7.31

Notes

Purged Dry @ 14:36

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-02 14:31:31

Project Information:

Operator Name T. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 24 ft

Pump placement from TOC 14 ft

Well Information:

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.80 ft  
Screen Length 10 ft  
Depth to Water 6.70 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.1971222 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:07:01	900.03	24.14	5.90	400.68	1.06	6.75	0.25	14.54
Last 5	14:12:01	1200.03	24.06	5.91	399.60	1.03	6.75	0.22	8.45
Last 5	14:17:01	1500.03	23.64	5.93	405.92	0.84	6.76	0.20	3.27
Last 5	14:22:01	1800.03	23.69	5.95	413.73	1.01	6.76	0.19	-2.41
Last 5	14:27:01	2100.03	24.10	5.95	417.09	0.89	6.76	0.18	-8.27
Variance 0			-0.42	0.02	6.32			-0.03	-5.18
Variance 1			0.05	0.01	7.81			-0.01	-5.68
Variance 2			0.41	0.01	3.36			-0.01	-5.85

Notes

Purge started at 1352. Purge rate of 100 ml/ min. Weather - sunny / clear 75F.  
Parameters stable at 1427. Well sampled at 1435. Sample rate of 100 ml/min. Weather - sunny/clear 75 F.

Grab Samples

GWC-11  
Sampled at 1435

Product Name: Low-Flow System

Date: 2017-05-03 10:08:15

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 43 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.65 ft  
Screen Length 10 ft  
Depth to Water 26.5 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4119272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 33.84 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	09:34:33	1200.03	17.49	7.15	307.27	4.09	28.67	1.00	-42.35
Last 5	09:49:33	2099.91	17.82	7.27	306.31	3.95	28.99	2.26	-46.50
Last 5	09:54:33	2399.90	17.86	7.29	306.47	4.24	29.25	2.01	-47.74
Last 5	09:59:33	2699.90	18.02	7.31	306.31	3.88	29.32	1.88	-49.77
Last 5	10:04:33	2999.91	18.17	7.32	306.85	3.97	29.31	1.85	-51.30
Variance 0			0.04	0.03	0.16			-0.25	-1.24
Variance 1			0.16	0.02	-0.16			-0.13	-2.03
Variance 2			0.14	0.01	0.54			-0.03	-1.54

Notes

Begin purging at 0914. Well stable at 1004. Sample at 1010. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWC-12  
1010

Product Name: Low-Flow System

Date: 2017-05-03 12:47:38

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant wansley GPC  
Site Name Plant wansley-gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 92 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 90.4 ft  
Screen Length 13 ft  
Depth to Water 6.48 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.6206349 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.92 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 100
Last 5	12:30:34	300.13	23.20	6.55	59.04	7.51	6.60	4.58	160.55
Last 5	12:35:34	600.03	21.85	6.55	59.05	1.45	6.60	4.53	153.61
Last 5	12:40:34	900.03	21.18	6.56	59.15	3.69	6.63	4.58	150.52
Last 5	12:45:34	1200.02	21.29	6.57	57.24	2.12	6.64	4.48	146.82
Last 5									
Variance 0			-1.35	0.01	0.01			-0.06	-6.94
Variance 1			-0.67	0.01	0.10			0.05	-3.09
Variance 2			0.10	0.02	-1.92			-0.10	-3.70

Notes

Parameters stable

Grab Samples

GWC-13  
Sampling at 1250



# GROUNDWATER SAMPLING LOG SHEET

Client: GPC  
 Site: Plant Wastley  
 Well ID: GWC-14  
 Total Depth (ft): 24.6 (23.60)  
 Depth to Water (ft): 9.77  
 Well Diameter (in): 2  
 Well Volume (gal) = 0.041d<sup>2</sup>h: \_\_\_\_\_  
 Well Volume (L) = gal \* 3.785: \_\_\_\_\_

Project No.: \_\_\_\_\_  
 Location: TPP SVU  
 Pump Type/Model: Peristaltic  
 Tubing Material: LDPE  
 Pump Intake Depth (ft): ~19  
 Start/Stop Purge Time: 1328  
 Purge Rate (L/min): 0.200 L/min  
 Total Purge Volume (L): 4

Sampling Date: \_\_\_\_\_  
 Sampler's Name: M. Rogers  
 Sample Collection Time: 1352  
 Sample Purge Rate (L/min): 0.2  
 Sample ID: GWC-14  
 Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)  
 Well Type: Flush  Sick Up   
 Well Lock:  Yes  No  
 Well Cap Condition:  Good  Replace  
 Well Tag Present:  Yes  No

Purge Method:  Low Flow  Well Volume  Other:  
 Sampling Method:  Pump Discharge  Other:

QA/QC Collected? No  
 QA/QC I.D. \_\_\_\_\_

All sample containers requiring chemical preservation properly preserved prior to demob from well?  Yes  No

10' screen

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1333	24.72	319.7	0.34	5.75	61.60	3.35	200	1	4.80	
1338	23.02	322.2	0.20	5.74	67.50	3.00	↓	2	4.80	
1343	22.83	318.6	0.16	5.72	67.89	2.90		3	4.80	
1348	22.44	315.0	0.14	5.71	82.8	1.93		4	4.83	
Parameters Stable, Sampling @ 1352										
Stabilizing Criteria <sup>4,5</sup>		+/- 5%	0.2 mg/L or 10% for DO > 0.5 mg/l (whichever is greater) <sup>7</sup>	+/- 0.1 unit		<5 NTUs	>100 mL <250 mL	>3L	<0.3 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 within 3 consecutive readings. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft per 3 readings.
- (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)



Product Name: Low-Flow System

Date: 2017-05-03 12:30:15

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 56 ft

Pump placement from TOC 46 ft

Well Information:

Well ID GWC-15  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 6.75 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3399517 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.68 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	12:10:37	300.16	21.60	6.72	109.21	0.63	7.14	3.62	83.40
Last 5	12:15:37	600.03	20.18	6.55	113.57	0.39	7.14	3.66	73.96
Last 5	12:20:37	900.03	20.19	6.51	115.09	0.71	7.14	3.61	71.40
Last 5	12:25:37	1200.02	20.08	6.50	114.59	1.23	7.14	3.61	70.31
Last 5									
Variance 0			-1.42	-0.17	4.36			0.04	-9.44
Variance 1			0.01	-0.04	1.52			-0.05	-2.55
Variance 2			-0.12	-0.01	-0.50			0.01	-1.09

Notes

Weather: 79F Sunny. Purge Time: 1205/1225. QA/QC DUP-3 collected

Grab Samples

GWC-15  
Sample Time 1230  
DUP-3  
Blind Duplicate

Product Name: Low-Flow System

Date: 2017-05-03 10:12:04

Project Information:

Operator Name T. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 32 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-16  
Well diameter 2 in  
Well Total Depth 27.06 ft  
Screen Length 10 ft  
Depth to Water 10.88 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2328295 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:47:02	900.03	18.02	6.26	115.46	0.34	10.92	4.18	96.22
Last 5	09:52:02	1200.03	18.25	6.17	106.90	0.30	10.94	4.13	96.59
Last 5	09:57:02	1500.03	18.20	6.08	100.85	0.21	10.94	4.04	98.48
Last 5	10:02:02	1800.03	18.34	6.04	100.01	0.19	10.94	4.02	101.15
Last 5	10:07:02	2099.82	18.45	6.06	99.96	0.15	10.94	4.01	104.03
Variance 0			-0.05	-0.09	-6.05			-0.08	1.89
Variance 1			0.14	-0.05	-0.84			-0.02	2.67
Variance 2			0.12	0.02	-0.05			-0.01	2.88

Notes

Purge started at 0932. Pure rate of 200 ml/min. Weather - clear / sunny 68F.

No water in flow cell at first reading at 0937. Parameters stable at 1007. Well sampled at 1015. Weather - clear / sunny 70F. FERB-3 Sample

Grab Samples

GWC-16  
Sampled at 1015

Product Name: Low-Flow System

Date: 2017-05-03 12:02:45

Project Information:

Operator Name T. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 58 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.3 ft  
Screen Length 10 ft  
Depth to Water 20.72 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3488785 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9.36 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:34:07	600.03	23.06	6.08	115.49	1.70	21.31	1.46	121.21
Last 5	11:39:07	900.03	23.21	6.09	115.74	0.91	21.40	2.04	124.02
Last 5	11:44:07	1200.03	22.98	6.09	116.41	0.82	21.45	2.67	127.04
Last 5	11:49:07	1500.03	23.04	6.09	116.12	0.75	21.49	2.74	129.84
Last 5	11:54:07	1800.03	23.07	6.09	116.17	0.99	21.50	2.65	132.42
Variance 0			-0.23	0.00	0.67			0.63	3.02
Variance 1			0.06	0.00	-0.28			0.07	2.80
Variance 2			0.03	0.00	0.05			-0.09	2.58

Notes

Purge started at 1124. Purge rate of 100 ml/min. Weather - clear / sunny 77F.  
Parameters stable at 1154. Well sampled at 1200. Sample rate of 100 ml/min. 2nd Rad sample taken. Weather - clear / sunny 77F.

Grab Samples

GWC-17  
Sampled at 1200  
GWC-17 2nd Rad  
Sampled at 1200

Product Name: Low-Flow System

Date: 2017-05-03 14:19:23

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 35 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 30.5 ft  
Screen Length 10 ft  
Depth to Water 14.36 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2462198 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.6 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	14:05:32	300.10	20.41	5.97	89.35	0.63	14.41	1.42	60.44
Last 5	14:10:32	600.03	18.84	5.92	92.66	0.61	14.41	1.34	58.37
Last 5	14:15:32	899.81	18.48	5.92	92.49	0.84	14.41	1.31	59.03
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-1.57	-0.04	3.32			-0.08	-2.08
Variance 2			-0.36	-0.00	-0.17			-0.03	0.66

Notes

Weather: 81F Sunny. Purge Time 1400/1415.

Grab Samples

GWC-18  
Sample Time 1415

Product Name: Low-Flow System

Date: 2017-05-03 14:43:25

Project Information:

Operator Name T. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 42.5 ft

Pump placement from TOC 32.5 ft

Well Information:

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.5 ft  
Screen Length 10 ft  
Depth to Water 9.25 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2796955 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8.28 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:20:00	900.03	20.14	5.93	91.99	2.47	9.88	0.33	114.59
Last 5	14:25:00	1200.03	20.43	5.92	91.32	2.77	9.90	0.30	115.51
Last 5	14:30:00	1500.03	20.03	5.90	90.93	4.16	9.93	0.27	116.15
Last 5	14:35:00	1800.03	20.36	5.89	90.71	4.49	9.94	0.25	116.48
Last 5	14:40:00	2100.03	21.19	5.89	90.48	4.17	9.94	0.25	117.29
Variance 0			-0.40	-0.02	-0.40			-0.03	0.64
Variance 1			0.33	-0.01	-0.21			-0.02	0.34
Variance 2			0.82	-0.00	-0.23			0.00	0.81

Notes

Purge stated at 1405. Purge rate of 100 ml/min.  
Parameters stable at 1440. Well sampled at 1450. Sample rate of 100 ml/ min. Weather - clear / sunny 80F.

Grab Samples

GWC-19  
Sampled at 1450

Product Name: Low-Flow System

Date: 2017-05-04 10:05:02

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant wansley GPC  
Site Name Plant wansley-gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 73 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-20  
Well diameter 2 in  
Well Total Depth 71 ft  
Screen Length 10 ft  
Depth to Water 7.35 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.53583 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 11.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 100
Last 5	09:43:42	1498.20	16.84	6.66	114.68	3.38	7.45	5.70	106.40
Last 5	09:48:42	1798.21	16.85	6.57	113.49	3.49	7.45	5.15	102.33
Last 5	09:53:42	2098.20	16.83	6.41	111.20	4.11	7.45	3.68	99.92
Last 5	09:58:42	2398.20	16.82	6.38	111.31	3.70	7.46	3.61	96.34
Last 5	10:03:42	2698.21	16.82	6.38	110.62	3.62	7.47	3.47	95.45
Variance 0			-0.02	-0.16	-2.28			-1.47	-2.41
Variance 1			-0.01	-0.03	0.11			-0.08	-3.57
Variance 2			0.00	-0.01	-0.70			-0.13	-0.90

Notes

Parameters stable

Grab Samples

GWC-20  
Sampling at 1005

Product Name: Low-Flow System

Date: 2017-05-04 11:10:46

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant wansley GPC  
Site Name Plant wansley-gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 40 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.3 ft  
Screen Length 10 ft  
Depth to Water 16.72 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3885369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.04 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 100
Last 5	10:48:52	600.03	16.47	5.54	45.68	0.55	17.83	1.75	144.17
Last 5	10:53:52	899.94	16.54	5.54	45.52	1.39	17.95	1.70	143.99
Last 5	10:58:52	1199.94	16.60	5.53	45.38	1.07	18.29	1.65	145.22
Last 5	11:03:52	1499.94	16.72	5.55	45.37	1.11	18.36	1.59	141.59
Last 5	11:08:52	1799.94	16.75	5.55	45.39	1.00	18.53	1.58	137.57
Variance 0			0.06	-0.01	-0.13			-0.05	1.24
Variance 1			0.12	0.02	-0.01			-0.06	-3.63
Variance 2			0.04	0.00	0.02			-0.01	-4.02

Notes

Parameters stable

Grab Samples

GWC-21  
Sampling at 1112

Product Name: Low-Flow System

Date: 2017-05-03 14:36:54

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 78 ft

Pump placement from TOC 72.5 ft

Well Information:

Well ID GWC-22  
Well diameter 2 in  
Well Total Depth 77.59 ft  
Screen Length 10 ft  
Depth to Water 28.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5681469 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8.4 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	14:14:03	900.03	20.21	6.60	126.74	5.71	28.85	3.49	9.08
Last 5	14:19:03	1200.03	19.76	6.58	127.92	5.37	28.95	3.43	11.35
Last 5	14:24:03	1500.03	19.68	6.58	127.68	4.56	28.85	3.41	13.15
Last 5	14:29:03	1800.03	19.61	6.57	127.35	4.54	28.85	3.44	14.82
Last 5	14:34:03	2100.03	19.59	6.59	127.10	2.52	28.85	3.41	15.21
Variance 0			-0.09	-0.01	-0.24			-0.02	1.80
Variance 1			-0.06	-0.00	-0.33			0.03	1.66
Variance 2			-0.02	0.02	-0.24			-0.02	0.40

Notes

Begin purging at 1359. Well stable at 1434. Sample at 1440. Sample rate 0.2L/min. Weather is sunny.

Grab Samples

GWC-22  
1440



Product Name: Low-Flow System

Date: 2017-05-04 09:56:58

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 70 ft

Pump placement from TOC 62 ft

Well Information:

Well ID GWC-23  
Well diameter 2 in  
Well Total Depth 67.29 ft  
Screen Length 10 ft  
Depth to Water 37.84 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.5324396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 16.44 in  
Total Volume Pumped 8.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	09:34:14	900.03	16.89	6.46	47.53	8.55	39.21	5.47	29.92
Last 5	09:39:14	1200.03	16.91	6.35	46.92	6.12	39.18	5.47	29.12
Last 5	09:44:14	1500.03	16.91	6.26	45.71	4.44	39.18	5.43	28.24
Last 5	09:49:14	1800.03	16.88	6.22	45.75	3.98	39.18	5.40	27.81
Last 5	09:54:14	2100.03	16.91	6.20	45.98	4.27	39.18	5.37	27.28
Variance 0			0.00	-0.09	-1.21			-0.04	-0.89
Variance 1			-0.04	-0.05	0.04			-0.03	-0.43
Variance 2			0.03	-0.02	0.23			-0.03	-0.53

Notes

Begin purging at 0919. Well stable at 0949. Sample at 0955. Sample rate 0.25L/min. Weather is cloudy.

Grab Samples

GWC-23  
0955

Product Name: Low-Flow System

Date: 2017-05-03 13:07:27

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 59 ft

Pump placement from TOC 50.5 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 47.69 ft

Pumping Information:

Final Pumping Rate 450 mL/min  
Total System Volume 0.483342 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 40.9 in  
Total Volume Pumped 6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	12:55:47	300.09	18.83	7.79	39.46	4.27	48.85	8.45	-2.49
Last 5	13:00:47	600.03	18.37	7.50	38.31	3.37	49.70	7.33	11.98
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.46	-0.29	-1.15			-1.12	14.48
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Began purging at 1250. Purged 3 well volumes at 0.45L/min since depth to water was below top of screen. Well went dry at 1304 after 2 well volumes. Weather is sunny.

Grab Samples



Product Name: Low-Flow System

Date: 2017-05-01 12:25:48

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 63 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.96 ft  
Screen Length 10 ft  
Depth to Water 33.94 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5179799 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.4 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	12:02:51	900.03	17.37	5.88	50.76	10.31	34.75	6.60	118.22
Last 5	12:07:51	1200.03	17.41	5.83	50.58	8.83	34.81	6.52	115.86
Last 5	12:12:51	1500.03	17.29	5.78	50.12	4.68	34.88	6.50	112.50
Last 5	12:17:51	1800.03	17.31	5.80	49.59	3.66	34.89	6.50	109.04
Last 5	12:22:51	2100.03	17.29	5.78	49.16	2.72	34.89	6.54	107.30
Variance 0			-0.12	-0.04	-0.46			-0.01	-3.37
Variance 1			0.02	0.01	-0.53			-0.00	-3.46
Variance 2			-0.02	-0.02	-0.43			0.04	-1.74

Notes

Begin purging at 1147. Well stable at 1222. Sample at 1230. Sample rate 0.2L/min. Weather is cloudy. DUP-1 taken.

Grab Samples

GWC-26  
1230  
DUP-1  
1230

Product Name: Low-Flow System

Date: 2017-04-28 10:19:35

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant Wansley GPC  
Site Name Gypsum  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED BLADDER  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 72 ft

Pump placement from TOC 64 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.8 ft  
Screen Length 10 ft  
Depth to Water 44.92 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6313664 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.24 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:58:01	1200.03	20.83	5.99	33.89	7.98	46.38	4.07	-1.85
Last 5	10:03:01	1499.90	21.05	5.95	33.41	5.51	46.40	3.99	-1.30
Last 5	10:08:01	1799.90	21.08	5.94	32.43	3.13	46.42	3.98	-0.49
Last 5	10:13:01	2099.90	21.23	5.91	31.96	0.77	46.43	4.04	0.12
Last 5	10:18:01	2399.90	22.12	5.89	31.56	2.39	46.44	3.80	0.57
Variance 0			0.03	-0.02	-0.98			-0.01	0.81
Variance 1			0.15	-0.03	-0.47			0.05	0.61
Variance 2			0.89	-0.02	-0.40			-0.24	0.45

Notes

Parameters stable. Taking extra radium bottle here

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-01 12:44:18

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 55 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.6 ft  
Screen Length 10 ft  
Depth to Water 26.58 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.4604883 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 38.04 in  
Total Volume Pumped 11.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	12:20:04	3299.96	17.29	6.00	52.07	6.17	28.84	6.13	73.08
Last 5	12:25:04	3599.96	17.41	6.00	51.98	5.93	29.82	6.16	72.45
Last 5	12:30:04	3899.96	17.47	6.00	52.00	4.06	29.80	6.17	72.53
Last 5	12:35:04	4199.96	17.57	6.00	51.96	4.13	29.75	6.16	72.02
Last 5	12:40:04	4499.96	17.63	6.00	51.99	3.54	29.75	6.16	71.88
Variance 0			0.06	-0.01	0.03			0.01	0.08
Variance 1			0.11	0.01	-0.05			-0.01	-0.51
Variance 2			0.06	-0.00	0.04			-0.00	-0.15

Notes

Weather: 64F Cloudy. Purge Time: 1125/1240. FERB-1 Collected.

Grab Samples

GWC-30  
Sample Time 1245

Product Name: Low-Flow System

Date: 2017-05-01 14:41:51

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 45 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 31.33 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.4328427 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 66.36 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:33:43	299.83	18.17	6.18	117.76	2.37	34.35	6.39	97.42
Last 5	14:38:43	599.77	17.86	6.24	119.72	5.63	36.20	6.37	88.49
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.31	0.06	1.96			-0.03	-8.94
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Begin purging at 1428. Purge 3 well volumes since DTW is below top of screen. Well went dry at 1440 after 1st well volume purged. Well not sampled. Weather is cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-01 14:59:33

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.1 ft  
Screen Length 10 ft  
Depth to Water 25.35 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3935369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 82.2 in  
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	14:35:23	599.98	17.99	6.14	113.57	2.40	27.28	7.85	72.18
Last 5	14:40:23	899.97	17.77	6.16	122.58	1.00	28.38	7.55	71.42
Last 5	14:45:23	1199.97	17.88	6.15	125.69	1.13	29.10	7.00	70.88
Last 5	14:50:23	1499.97	18.12	6.16	128.44	0.72	29.73	6.04	70.97
Last 5	14:55:23	1799.97	18.35	6.18	125.21	26.60	--	5.76	70.63
Variance 0			0.11	-0.01	3.11			-0.55	-0.54
Variance 1			0.25	0.01	2.75			-0.96	0.10
Variance 2			0.22	0.02	-3.24			-0.27	-0.35

Notes

Well Dry at 1458

Grab Samples



Product Name: Low-Flow System

Date: 2017-05-01 16:24:55

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 28 ft

Pump placement from TOC 18.5 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.46 ft  
Screen Length 10 ft  
Depth to Water 13.85 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2224355 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 88.08 in  
Total Volume Pumped 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:01:36	2999.96	20.13	6.44	164.51	--	--	7.67	82.03
Last 5	16:06:36	3299.96	20.31	6.44	161.87	--	--	7.49	81.23
Last 5	16:11:36	3599.96	20.78	6.40	164.88	1.15	20.73	7.51	82.89
Last 5	16:16:36	3899.96	22.09	6.43	167.23	1.20	20.98	7.44	81.34
Last 5	16:21:36	4199.96	22.54	6.45	167.71	1.18	21.19	7.24	81.49
Variance 0			0.47	-0.04	3.01			0.02	1.66
Variance 1			1.31	0.04	2.35			-0.07	-1.55
Variance 2			0.45	0.02	0.48			-0.20	0.15

Notes

Begin purging 3 well volumes at 1511 since DTW was below top of screen. Purge rate 0.5L/min. Lower purge rate to 0.1L/min after 3rd well volume at 1611. Sample at 1625. Sample rate 0.1L/min. Weather is sunny.

Grab Samples

GWC-33  
1625

Product Name: Low-Flow System

Date: 2017-05-01 15:53:15

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 456959  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 55 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-34  
Well diameter 2 in  
Well Total Depth 50.8 ft  
Screen Length 10 ft  
Depth to Water 4.70 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.3354883 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.64 in  
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	15:30:13	600.03	18.97	6.02	55.89	9.09	4.88	5.01	61.99
Last 5	15:35:13	900.02	18.78	5.92	52.38	11.00	4.92	5.22	63.45
Last 5	15:40:13	1200.02	18.83	5.90	51.11	4.37	4.92	5.24	63.91
Last 5	15:45:13	1499.97	18.83	5.89	50.69	2.48	4.92	5.22	64.37
Last 5	15:50:13	1799.97	18.84	5.88	50.63	2.79	4.92	5.25	64.35
Variance 0			0.05	-0.02	-1.27			0.02	0.46
Variance 1			-0.00	-0.01	-0.41			-0.01	0.46
Variance 2			0.01	-0.01	-0.06			0.03	-0.02

Notes

Weather: 73 Clear light wind. Purge Time 1520/1550

Grab Samples

GWC-34  
Sample Time 1550

Product Name: Low-Flow System

Date: 2017-05-02 11:47:35

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449474  
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.175 in  
Tubing Length 43 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.33 ft  
Screen Length 10 ft  
Depth to Water 8.46 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.2933831 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 8.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	11:24:43	900.03	20.24	5.91	53.36	0.25	8.70	3.46	104.03
Last 5	11:29:43	1200.03	20.18	5.87	52.63	0.40	8.71	3.77	100.70
Last 5	11:34:43	1500.03	20.17	5.76	51.90	0.31	8.71	2.93	97.86
Last 5	11:39:44	1800.07	20.32	5.73	51.10	0.28	8.71	2.78	95.80
Last 5	11:44:44	2100.06	20.39	5.72	51.37	0.22	8.71	2.67	93.44
Variance 0			-0.02	-0.11	-0.72			-0.84	-2.84
Variance 1			0.15	-0.03	-0.81			-0.16	-2.06
Variance 2			0.07	-0.01	0.28			-0.11	-2.36

Notes

Begin purging at 1109. Well stable at 1144. Sample at 1150. Sample rate 0.25 L/min. DUP-2 taken. Weather is sunny.

Grab Samples

GWC-35  
1150

DUP-2  
1150

Product Name: Low-Flow System

Date: 2017-07-18 13:02:36

Project Information:

Operator Name Myles Rogers/ Jim Morrison  
Company Name ERM  
Project Name Plant wansley make up  
Site Name Plant Wansley-Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449471  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 60 ft

Pump placement from TOC 56 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.10 ft  
Screen Length 10 ft  
Depth to Water 42.80 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.4778054 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.56 in  
Total Volume Pumped 16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:38:30	2399.97	17.23	6.01	79.95	6.65	42.93	6.73	182.31
Last 5	12:43:30	2699.96	17.28	6.01	79.73	5.45	42.93	6.77	179.77
Last 5	12:48:30	2999.96	17.23	6.02	79.48	4.14	42.93	6.79	178.66
Last 5	12:53:30	3299.96	17.22	6.02	79.22	3.97	42.93	6.78	177.01
Last 5	12:58:30	3599.96	17.23	6.02	78.79	3.69	42.93	6.76	175.58
Variance 0			-0.04	0.01	-0.25			0.02	-1.11
Variance 1			-0.01	0.00	-0.26			-0.01	-1.65
Variance 2			0.01	-0.00	-0.43			-0.02	-1.43

Notes

Well will most likely go dry. Will come back to sample tomorrow 7/19/2017 if well goes dry.  
No drawdown, well stabilized at 12:58. Weather: partly cloudy high 80's

Grab Samples

GWA-29  
Sampling at 13:05

Product Name: Low-Flow System

Date: 2017-07-18 14:06:28

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant wansley make up  
Site Name Plant Wansley-Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449471  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 31.62 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.3885369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 62.88 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:56:31	300.11	18.72	6.17	133.85	2.87	34.07	6.16	128.62
Last 5	14:01:31	600.03	18.32	6.17	137.07	0.00	35.56	6.34	138.56
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.40	-0.00	3.21			0.18	9.94
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Well may go dry. Will sample tomorrow if well goes dry.  
Well went dry at 14:05. Will come back to sample tomorrow 7/19/2017

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-18 14:52:23

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant wansley make up  
Site Name Plant Wansley-Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449471  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 25 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.46 ft  
Screen Length 10 ft  
Depth to Water 16.98 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.3215856 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 77.76 in  
Total Volume Pumped 11.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:31:51	300.10	19.38	6.57	157.12	--	--	10.19	150.12
Last 5	14:36:51	600.03	19.43	6.52	151.92	--	--	10.38	148.81
Last 5	14:41:51	900.03	19.32	6.54	149.47	--	--	9.85	146.67
Last 5	14:46:51	1200.03	19.25	6.47	170.56	--	--	10.01	147.10
Last 5									
Variance 0			0.04	-0.04	-5.20			0.19	-1.31
Variance 1			-0.10	0.02	-2.45			-0.53	-2.14
Variance 2			-0.07	-0.06	21.08			0.16	0.43

Notes

May go dry. Will chase water level down. Must do 3 well volumes  
Well went dry at 14:50 after 3 well volumes. Will come back to sample tomorrow 7/19/2017

Grab Samples

Product Name: Low-Flow System

Date: 2017-08-01 15:21:29

Project Information:

Operator Name C. Hurdle  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 497259  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40.2 ft

Pump placement from TOC 30.2 ft

Well Information:

Well ID GWA-3  
Well diameter 2 in  
Well Total Depth 31.2 ft  
Screen Length 10 ft  
Depth to Water 28.87 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3944296 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8.4 in  
Total Volume Pumped 2.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 10%
Last 5	15:05:29	300.10	19.58	6.41	548.94	0.86	29.36	6.93	88.43
Last 5	15:10:29	600.03	20.29	6.35	541.02	0.71	29.57	6.98	87.96
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.71	-0.05	-7.92			0.06	-0.47
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Purge Time: 1500/1511. Purged 3 well volumes in 10 minutes, then sampled. Only two readings because wanted to ensure enough water left to sample. Well purged dry after sampling. Sample time 1511. Weather: 86F, partly cloudy.

Grab Samples

GWA-3  
Sample Time 1511

Product Name: Low-Flow System

Date: 2017-08-01 11:50:05

Project Information:

Operator Name Markevious Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 62 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.1 ft  
Screen Length 10 ft  
Depth to Water 43.8 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4917322 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.03 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10%
Last 5	11:15:18	900.03	20.53	5.87	77.37	4.45	43.83	6.49	476.67
Last 5	11:20:18	1200.03	20.15	5.87	77.10	3.92	43.83	6.33	524.08
Last 5	11:25:18	1500.03	20.16	5.87	77.81	2.84	43.83	6.30	563.91
Last 5	11:30:18	1800.03	20.13	5.87	77.66	2.69	43.83	6.19	596.65
Last 5	11:35:18	2100.03	19.77	5.86	78.15	2.39	43.83	6.16	616.95
Variance 0			0.01	-0.00	0.72			-0.04	39.83
Variance 1			-0.03	-0.01	-0.15			-0.11	32.73
Variance 2			-0.35	-0.01	0.48			-0.03	20.30

Notes

1100 start purge at 200mL/min; 1135 all parameters stable; 1140 sampled at 200mL/min. 83F Fair and calm

Grab Samples

GWA-29  
Sampled at 1140  
DUP-1  
Sampled at 1140







Product Name: Low-Flow System

Date: 2017-08-24 14:53:59

Project Information:

Operator Name H. Beough  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449471  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 34 ft

Pump placement from TOC 24 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 24 ft  
Screen Length 10 ft  
Depth to Water 13.9 ft

Pumping Information:

Final Pumping Rate 400 mL/min  
Total System Volume 0.2417564 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 20	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	14:37:22	300.15	23.08	6.67	169.39	0.67	14.79	8.74	304.38
Last 5	14:42:22	600.03	21.28	6.58	174.11	1.06	16.10	9.20	336.90
Last 5	14:47:22	900.03	21.34	6.52	165.03	--	0.00	9.00	319.66
Last 5	14:52:22	1200.03	21.32	6.45	172.28	--	--	9.38	300.44
Last 5									
Variance 0			-1.80	-0.10	4.71			0.46	32.51
Variance 1			0.06	-0.05	-9.07			-0.20	-17.23
Variance 2			-0.02	-0.07	7.25			0.38	-19.23

Notes

1431-1453

Grab Samples

Product Name: Low-Flow System

Date: 2017-08-24 15:41:36

Project Information:

Operator Name H. Beough  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 449471  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 24.00 ft  
Screen Length 10 ft  
Depth to Water 15.90 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 66.84 in  
Total Volume Pumped 15.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 20	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	15:00:41	300.04	21.11	6.47	160.66	2.20	19.17	10.52	282.00
Last 5	15:05:41	600.03	20.96	6.46	158.59	2.38	20.55	10.11	263.43
Last 5	15:10:41	900.03	20.67	6.45	153.26	1.70	21.37	10.67	251.50
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.15	-0.01	-2.07			-0.41	-18.56
Variance 2			-0.29	-0.01	-5.33			0.55	-11.94

Notes

Weather- clear 96; 1431/1510; sampled @ 1510 @ 100ml/min; purge rate 300-500 mL/min; 3 well volumes purged (15 L); FB-1 collected @1540

Grab Samples

GWC-33  
1510

FB-1  
1540

Product Name: Low-Flow System

Date: 2017-09-06 11:14:48

Project Information:

Operator Name A. Ellis  
Company Name GPC  
Project Name Wansly  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364452  
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 37 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 34.44 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.5501466 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.72 in  
Total Volume Pumped 1.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 5		+/- 0.2	+/- 100
Last 5	10:49:52	300.17	20.84	6.45	171.84	3.30	34.50	7.12	109.29
Last 5	10:54:52	600.03	19.32	5.73	151.20	3.40	34.90	6.76	57.21
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-1.51	-0.72	-20.63			-0.35	-52.08
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Sampled after 1 well volume. Dry halfway through filling rad - allowed recharge to fill

Grab Samples

Product Name: Low-Flow System

Date: 2017-09-06 11:12:15

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name Plant Wansley CCR  
Site Name Plant Wansley  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463072  
Turbidity Make/Model LaMotte

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 28 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 24 ft  
Screen Length 10 ft  
Depth to Water 16.27 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3349758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 16.08 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:48:33	300.10	20.36	6.76	154.72	2.64	16.76	8.60	76.74
Last 5	10:53:33	600.03	19.95	6.39	148.40	2.51	16.94	8.85	64.79
Last 5	10:58:33	900.02	19.91	6.28	147.42	1.00	17.31	8.80	60.72
Last 5	11:03:33	1200.02	19.90	6.23	149.33	1.17	17.83	8.78	59.58
Last 5	11:08:33	1499.99	19.73	6.19	150.80	1.34	18.10	8.73	59.87
Variance 0			-0.04	-0.11	-0.98			-0.05	-4.08
Variance 1			-0.01	-0.05	1.91			-0.02	-1.14
Variance 2			-0.17	-0.04	1.47			-0.05	0.29

Notes

As per Pete Robinson we will purge one well volume at low flow. Collecting all sample jars  
Parameters stable. Taking FERB-1 here. Weather:Raining high 60's

Grab Samples

GWC-33  
Sampling at 11:13  
FERB-1  
Sampling at 11:30

Product Name: Low-Flow System

Date: 2017-10-04 13:40:51

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 52 ft

Pump placement from TOC 44 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.9 ft  
Screen Length 10 ft  
Depth to Water 23.89 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.447098 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27.12 in  
Total Volume Pumped 19.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:19:05	10500.86	20.21	5.45	20.87	7.39	26.16	6.32	77.58
Last 5	13:24:05	10800.86	20.16	5.44	20.80	5.85	26.16	6.29	78.02
Last 5	13:29:05	11100.86	20.21	5.45	20.94	4.97	26.16	6.35	77.48
Last 5	13:34:05	11400.86	20.30	5.45	20.84	4.81	26.15	6.33	77.90
Last 5	13:39:05	11700.86	20.15	5.44	20.70	4.89	26.14	6.34	78.11
Variance 0			0.05	0.01	0.14			0.06	-0.54
Variance 1			0.09	-0.00	-0.10			-0.02	0.42
Variance 2			-0.15	-0.01	-0.14			0.01	0.21

Notes

10:24-13:39 Parameters stable at 13:39. Sampling GWA-1 at 13:42.

Grab Samples

GWA-1  
13:42

Product Name: Low-Flow System

Date: 2017-10-03 15:23:43

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.1 ft  
Screen Length 10 ft  
Depth to Water 44.86 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5051225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.96 in  
Total Volume Pumped 12.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:01:36	6302.87	21.01	5.53	68.45	5.77	44.94	7.34	83.85
Last 5	15:06:41	6607.88	21.55	5.53	68.70	6.24	44.94	7.31	83.45
Last 5	15:11:41	6907.87	20.88	5.53	69.01	4.67	44.94	7.34	84.04
Last 5	15:16:41	7207.87	21.32	5.53	68.93	4.82	44.94	7.33	83.67
Last 5	15:21:41	7507.87	20.92	5.53	69.08	3.84	44.94	7.35	83.96
Variance 0			-0.67	-0.00	0.32			0.03	0.60
Variance 1			0.44	0.00	-0.08			-0.01	-0.37
Variance 2			-0.40	-0.00	0.15			0.01	0.28

Notes

13:16-15:21 Parameters stable at 1521. GWA-2 Sampling at 15:25

Grab Samples

GWA-2  
Sampling at 15:25



Product Name: Low-Flow System

Date: 2017-10-03 14:38:39

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWA-3  
Well diameter 2 in  
Well Total Depth 31.2 ft  
Screen Length 10 ft  
Depth to Water 29.41 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3935369 L  
Calculated Sample Rate 120 sec  
Stabilization Drawdown 2.28 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:34:10	120.16	22.18	6.86	640.01	4.96	29.55	4.17	102.80
Last 5	14:36:10	240.03	20.99	6.80	632.38	4.78	29.60	4.58	86.80
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-1.19	-0.06	-7.62			0.41	-16.01
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Begin purging at 1432. Stop purging at 1436. GWA-3 sampled at 1440. Well has historically purged dry. Instructed to sample after collecting two readings.

Grab Samples

GWA-3  
1440

Product Name: Low-Flow System

Date: 2017-10-03 12:29:38

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 42 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 40.6 ft  
Screen Length 10 ft  
Depth to Water 25.92 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4024638 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.16 in  
Total Volume Pumped 17.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:07:07	5699.85	17.85	6.06	268.46	10.77	26.10	0.41	14.24
Last 5	12:12:08	6000.85	17.81	6.06	266.55	7.73	26.10	0.44	15.67
Last 5	12:17:08	6300.85	18.05	6.06	265.59	4.97	26.10	0.45	16.77
Last 5	12:22:08	6600.85	18.07	6.06	264.66	4.92	26.10	0.45	17.86
Last 5	12:27:08	6900.85	17.94	6.06	265.02	4.92	26.10	0.46	19.18
Variance 0			0.24	-0.00	-0.97			0.01	1.10
Variance 1			0.03	0.00	-0.93			0.00	1.09
Variance 2			-0.13	-0.00	0.36			0.00	1.32

Notes

10:32-12:07. Parameters stable at 12:07. GWA-4 at 12:30

Grab Samples

GWA-4  
12:30

Product Name: Low-Flow System

Date: 2017-10-03 13:36:11

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 48 ft

Pump placement from TOC 40 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.64 ft  
Screen Length 10 ft  
Depth to Water 25.6 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4292443 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 76.56 in  
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:13:28	3599.98	20.27	6.15	53.98	1.54	31.45	6.81	80.76
Last 5	13:18:28	3899.98	20.38	6.16	53.70	1.78	31.70	6.78	82.43
Last 5	13:23:28	4199.98	20.38	6.15	52.41	1.40	31.91	6.78	82.60
Last 5	13:28:28	4499.98	20.99	6.14	52.59	2.67	31.95	6.68	84.04
Last 5	13:33:28	4799.98	21.26	6.13	51.09	1.37	31.98	6.82	85.72
Variance 0			-0.01	-0.00	-1.30			0.00	0.17
Variance 1			0.61	-0.01	0.19			-0.10	1.44
Variance 2			0.27	-0.01	-1.50			0.14	1.69

Notes

Begin purging at 1213. Parameters stable at 1333. Stop purging at 1333. GWA-28 sampled at 1340.

Grab Samples

GWA-28  
1340

Product Name: Low-Flow System

Date: 2017-10-03 10:58:19

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 60 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.1 ft  
Screen Length 10 ft  
Depth to Water 44.39 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4828054 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.12 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:34:34	1200.03	21.39	6.01	76.11	7.04	44.40	6.41	114.13
Last 5	10:39:34	1500.03	22.00	6.02	77.93	5.97	44.40	6.64	113.65
Last 5	10:44:34	1800.03	22.35	6.01	76.26	4.38	44.40	6.59	112.61
Last 5	10:49:34	2100.03	22.57	6.02	76.27	4.11	44.40	6.46	112.23
Last 5	10:54:34	2400.03	22.67	6.01	75.52	3.49	44.40	6.43	111.92
Variance 0			0.35	-0.00	-1.67			-0.05	-1.04
Variance 1			0.22	0.01	0.01			-0.12	-0.38
Variance 2			0.10	-0.00	-0.75			-0.03	-0.31

Notes

Began purging at 1014. Initial purge rate 0.2L/min. Lower purge rate at 1024 to 0.1 L/min due to high turbidity. Parameters stable at 1054. GWA-29 sampled at 1100.

Grab Samples

GWA-29  
1100

Product Name: Low-Flow System

Date: 2017-10-03 11:51:17

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 44 ft

Pump placement from TOC 34 ft

Well Information:

Well ID GWC-5  
Well diameter 2 in  
Well Total Depth 36.8 ft  
Screen Length 10 ft  
Depth to Water 19.44 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2863906 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19.92 in  
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	11:15:45	2100.03	22.12	6.31	280.51	0.41	20.98	0.69	30.74
Last 5	11:20:45	2400.03	22.28	6.25	275.21	1.05	21.02	0.69	31.03
Last 5	11:25:45	2700.03	22.43	6.22	273.67	1.76	21.07	0.69	31.43
Last 5	11:30:45	3000.03	22.48	6.21	272.27	1.15	21.08	0.68	32.25
Last 5	11:35:45	3300.03	22.49	6.20	272.18	0.64	21.10	0.69	32.59
Variance 0			0.15	-0.03	-1.53			-0.01	0.41
Variance 1			0.06	-0.01	-1.40			-0.00	0.82
Variance 2			0.00	-0.01	-0.09			0.01	0.34

Notes

Purging commenced @ 1045 w/ 100 mL/min. First readings taken @ 1050 and sampled @ 1135 w/ 100 mL/min. Weather his sunny, ~78 F.

Grab Samples

GWC-5  
Collected @ 1135 w/ 100 mL/min

Product Name: Low-Flow System

Date: 2017-10-03 13:35:22

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 36.00 ft

Pump placement from TOC 26.00 ft

Well Information:

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 31.10 ft  
Screen Length 10 ft  
Depth to Water 18.88 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2506832 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.09 in  
Total Volume Pumped 2.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	13:00:45	300.10	23.81	5.90	175.74	1.09	18.97	0.44	44.15
Last 5	13:05:44	600.03	23.72	5.90	177.39	2.19	18.98	0.40	45.10
Last 5	13:10:44	900.03	23.70	5.89	179.09	1.39	18.97	0.46	45.48
Last 5	13:15:44	1200.03	23.92	5.89	181.56	2.87	18.97	0.50	46.43
Last 5	13:20:44	1500.03	23.80	5.90	183.40	1.33	18.97	0.54	46.57
Variance 0			-0.02	-0.00	1.70			0.06	0.38
Variance 1			0.22	-0.01	2.47			0.04	0.95
Variance 2			-0.11	0.01	1.84			0.04	0.15

Notes

Purging started 1255/stopped 1320. Parameters stabilized at 1315. GWC-6 sampled @ 1320.

Grab Samples

GWC-6  
Samp @ 1320

Product Name: Low-Flow System

Date: 2017-10-03 15:39:57

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 31.00 ft

Pump placement from TOC 21.00 ft

Well Information:

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 25.9 ft  
Screen Length 10 ft  
Depth to Water 9.24 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2283661 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 39.12 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	15:05:46	1200.03	24.37	6.34	739.56	2.34	11.54	0.19	59.43
Last 5	15:10:46	1500.03	23.34	6.34	735.40	1.54	11.84	0.18	59.32
Last 5	15:15:46	1800.03	23.13	6.34	742.49	0.46	12.06	0.17	58.82
Last 5	15:20:45	2099.92	23.16	6.34	739.40	0.49	12.28	0.17	58.25
Last 5	15:25:45	2399.92	22.80	6.34	733.14	0.41	12.50	0.16	58.00
Variance 0			-0.21	-0.01	7.10			-0.01	-0.51
Variance 1			0.03	-0.00	-3.10			-0.00	-0.57
Variance 2			-0.36	0.01	-6.26			-0.00	-0.25

Notes

Purging start 1445/ stopped 1520. Parameters stabilized @ 1500. GWC-7 sampled @ 1525.

Grab Samples

GWC-7  
Samp @ 1525

Product Name: Low-Flow System

Date: 2017-10-04 10:19:35

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 25 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20 ft  
Screen Length 10 ft  
Depth to Water 10.28 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2015856 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	09:51:01	300.15	22.38	5.98	335.92	2.17	10.61	0.28	87.30
Last 5	09:56:01	600.03	22.53	5.96	336.90	1.18	10.73	0.26	80.23
Last 5	10:01:01	900.03	22.66	5.94	337.22	0.88	10.80	0.26	76.11
Last 5	10:06:01	1200.03	22.73	5.93	336.98	0.66	10.93	0.28	72.28
Last 5									
Variance 0			0.15	-0.02	0.98			-0.02	-7.08
Variance 1			0.13	-0.01	0.32			0.01	-4.12
Variance 2			0.07	-0.01	-0.25			0.02	-3.82

Notes

Purging started 0945/stopped 1005. Parameters stabilized @ 1000. GWC-8 sampled @ 1010.

Grab Samples

GWC-8  
Sampled @ 1010



Product Name: Low-Flow System

Date: 2017-10-03 14:24:44

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 29 ft

Pump placement from TOC 14.5 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.4 ft  
Screen Length 10 ft  
Depth to Water 7.62 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2194393 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.08 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	14:00:02	599.99	24.88	5.80	336.45	0.95	7.81	0.29	71.20
Last 5	14:05:02	899.99	24.88	5.82	337.62	1.16	7.87	0.24	65.16
Last 5	14:10:02	1199.99	24.82	5.83	336.18	1.34	7.90	0.21	61.24
Last 5	14:15:02	1500.00	24.77	5.84	333.43	0.86	7.94	0.23	59.28
Last 5	14:20:02	1799.99	24.81	5.84	337.08	0.61	7.96	0.20	56.49
Variance 0			-0.06	0.01	-1.44			-0.03	-3.91
Variance 1			-0.05	0.01	-2.75			0.02	-1.97
Variance 2			0.04	-0.00	3.65			-0.03	-2.79

Notes

Purge Time - 1350/1420. Parameters stabilized at 1420. GWC-9 sampled at 1425.

Grab Samples

GWC-9  
1420

Product Name: Low-Flow System

Date: 2017-10-03 16:06:35

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 31 ft

Pump placement from TOC 16 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 21.71 ft  
Screen Length 10 ft  
Depth to Water 12.34 ft

Pumping Information:

Final Pumping Rate 500 mL/min  
Total System Volume 0.2283661 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 103.44 in  
Total Volume Pumped 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	15:41:15	600.03	23.03	6.36	241.42	6.34	15.80	4.19	47.81
Last 5	15:46:15	900.02	22.12	6.41	263.33	3.48	17.32	0.97	49.67
Last 5	15:51:15	1200.02	21.41	6.48	265.17	5.46	18.61	1.05	51.71
Last 5	15:56:15	1500.02	21.45	6.50	274.60	5.04	19.71	2.73	53.59
Last 5	16:01:15	1799.97	21.93	6.47	274.71	136.00	20.96	2.70	55.43
Variance 0			-0.72	0.06	1.84			0.08	2.04
Variance 1			0.05	0.03	9.44			1.69	1.88
Variance 2			0.48	-0.03	0.10			-0.04	1.84

Notes

Water level is within the screen - 3 well volume purge required.  
Purge Time - 1531/1604. Well dry at 1604. No sample collected.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 13:43:55

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 28 ft

Pump placement from TOC 13 ft

Well Information:

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.80 ft  
Screen Length 10 ft  
Depth to Water 7.20 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2149758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	13:21:13	900.02	27.54	5.93	495.29	1.33	7.26	0.30	30.37
Last 5	13:26:13	1200.02	27.56	5.96	499.50	1.48	7.26	0.25	20.09
Last 5	13:31:13	1500.02	27.70	5.98	499.61	1.54	7.26	0.23	11.43
Last 5	13:36:13	1800.02	26.83	6.01	497.86	1.53	7.26	0.20	5.70
Last 5	13:41:13	2100.02	27.23	6.02	502.87	1.51	7.26	0.18	-3.01
Variance 0			0.14	0.02	0.11			-0.02	-8.66
Variance 1			-0.87	0.03	-1.75			-0.03	-5.73
Variance 2			0.40	0.01	5.00			-0.02	-8.71

Notes

Purge Time: 1306 to 1341. Parameters stabilized at 1341. GWC-11 sampled at 1350.

Grab Samples

GWC-11  
1350

Product Name: Low-Flow System

Date: 2017-10-04 11:34:48

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 43 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-12  
Well diameter 2 in  
Well Total Depth 40.65 ft  
Screen Length 10 ft  
Depth to Water 26.42 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.12 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:11:24	1200.03	22.74	7.57	291.77	2.58	27.22	0.87	-104.53
Last 5	11:16:24	1500.03	22.96	7.57	291.52	2.46	27.45	0.74	-107.78
Last 5	11:21:24	1800.03	23.04	7.58	289.06	3.85	27.66	0.65	-110.43
Last 5	11:26:24	2100.03	23.08	7.58	289.96	2.50	27.81	0.60	-113.20
Last 5	11:31:24	2400.03	23.34	7.58	289.71	2.64	27.93	0.56	-114.92
Variance 0			0.08	0.00	-2.46			-0.08	-2.64
Variance 1			0.04	0.00	0.90			-0.05	-2.77
Variance 2			0.26	0.00	-0.24			-0.04	-1.72

Notes

Began purging at 1051. Parameters stable at 1131. Stop purging at 1131. Sample GWC-12 at 1140. FERB-1 taken at 1205.

Grab Samples

GWC-12  
1140  
FERB-1  
1205

Product Name: Low-Flow System

Date: 2017-10-05 11:24:01

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 100 ft

Pump placement from TOC 85 ft

Well Information:

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 90.4 ft  
Screen Length 10 ft  
Depth to Water 6.73 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5363423 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	11:01:56	600.03	21.36	7.02	65.26	4.12	6.84	4.64	93.67
Last 5	11:06:56	900.02	21.37	6.92	64.91	4.58	6.85	4.72	88.37
Last 5	11:11:56	1200.03	21.45	6.85	63.85	1.77	6.85	4.80	86.40
Last 5	11:16:56	1500.02	21.54	6.82	64.50	1.68	6.85	4.78	84.99
Last 5	11:21:56	1800.02	21.59	6.81	64.14	1.37	6.85	4.68	84.11
Variance 0			0.08	-0.07	-1.06			0.09	-1.98
Variance 1			0.09	-0.03	0.65			-0.03	-1.41
Variance 2			0.05	-0.01	-0.36			-0.09	-0.88

Notes

Purge Time: 1052/1122. Parameters stabilized at 1122. GWC-13 sampled at 1130

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 14:24:54

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 28 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 24.6 ft  
Screen Length 10 ft  
Depth to Water 10.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2149758 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.96 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:07:30	300.10	23.39	5.10	583.41	0.24	10.16	0.28	119.29
Last 5	14:12:30	600.03	22.72	5.10	591.56	0.47	10.16	0.19	113.80
Last 5	14:17:30	900.03	22.15	5.10	587.38	0.38	10.16	0.18	111.24
Last 5	14:22:30	1200.09	22.49	5.11	580.63	0.31	10.16	0.16	108.04
Last 5									
Variance 0			-0.68	-0.01	8.15			-0.09	-5.49
Variance 1			-0.56	-0.00	-4.18			-0.01	-2.55
Variance 2			0.33	0.01	-6.75			-0.02	-3.21

Notes

Began purging at 1402. Parameters stable at 1422. Stop purging at 1422. Sample GWC-14 at 1430.

Grab Samples

GWC-14  
1430

Product Name: Low-Flow System

Date: 2017-10-04 15:11:45

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 61 ft

Pump placement from TOC 46 ft

Well Information:

Well ID GWC-15  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 7.06 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3622688 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.32 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	14:44:01	300.09	27.42	6.86	105.57	0.79	7.14	3.85	58.80
Last 5	14:49:01	600.03	22.64	6.72	112.62	1.36	7.16	3.39	58.28
Last 5	14:59:01	1199.99	21.77	6.69	112.51	0.58	7.16	3.41	61.29
Last 5	15:04:01	1499.99	21.15	6.68	113.77	0.22	7.17	3.34	78.05
Last 5	15:09:01	1799.99	21.37	6.67	112.23	0.05	7.17	3.42	83.75
Variance 0			-0.87	-0.03	-0.11			0.02	3.01
Variance 1			-0.62	-0.01	1.26			-0.07	16.76
Variance 2			0.21	-0.01	-1.54			0.08	5.70

Notes

Purge Time: 1439/1509. Parameters stabilized at 1509. GWC-15 sampled at 1515.

Grab Samples

GWC-15  
1515

Product Name: Low-Flow System

Date: 2017-10-05 12:54:55

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 37 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-16  
Well diameter 2 in  
Well Total Depth 27.06 ft  
Screen Length 10 ft  
Depth to Water 11.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.2551467 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	12:31:00	600.03	22.47	6.35	105.66	0.24	11.69	3.84	73.94
Last 5	12:36:00	900.02	22.39	6.25	103.07	0.13	11.69	3.83	73.12
Last 5	12:41:00	1200.01	22.35	6.22	102.41	0.30	11.69	3.78	73.39
Last 5	12:46:00	1500.01	22.35	6.20	102.00	0.17	11.69	3.75	74.49
Last 5	12:51:01	1801.00	22.41	6.19	101.62	0.21	11.69	3.73	75.25
Variance 0			-0.05	-0.03	-0.65			-0.04	0.27
Variance 1			0.01	-0.02	-0.41			-0.03	1.09
Variance 2			0.06	-0.01	-0.38			-0.02	0.77

Notes

Purge Time: 1221/1251. Parameters stabilized at 1251. GWC-16 sampled at 1300. DUP-3 sampled at 1300. FB-2 sampled at 1330.

Grab Samples

GWC-16  
1300

DUP-3  
1300

FB-2  
1330



Product Name: Low-Flow System

Date: 2017-10-04 12:05:13

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 58.0 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.3 ft  
Screen Length 10 ft  
Depth to Water 21.43 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3488785 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 10.92 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	11:30:46	1200.03	21.46	6.19	114.57	7.24	22.33	2.55	59.59
Last 5	11:35:46	1500.03	21.59	6.19	114.47	6.02	22.33	2.55	59.05
Last 5	11:40:46	1800.03	21.73	6.19	113.98	6.10	22.34	2.55	59.44
Last 5	11:45:46	2100.03	21.68	6.18	113.69	4.04	22.34	2.52	59.71
Last 5	11:50:46	2400.03	21.94	6.18	113.38	4.36	22.34	2.48	60.49
Variance 0			0.14	-0.00	-0.49			-0.00	0.39
Variance 1			-0.05	-0.00	-0.29			-0.03	0.27
Variance 2			0.27	-0.00	-0.31			-0.04	0.78

Notes

Purging started 1110/ended 1150. Parameters stabilized 1135. GWC-17 sampled @ 1155.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 13:53:01

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 35.00 ft

Pump placement from TOC 25.00 ft

Well Information:

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 30.5 ft  
Screen Length 10 ft  
Depth to Water 15.63 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2462198 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.48 in  
Total Volume Pumped 2.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	13:20:45	300.10	19.68	6.03	92.81	2.49	15.67	1.05	65.78
Last 5	13:25:45	600.03	19.42	6.03	93.19	1.26	15.68	1.00	65.24
Last 5	13:30:45	900.03	19.50	6.03	93.12	1.35	15.67	0.97	65.00
Last 5	13:35:45	1200.03	19.23	6.03	93.46	0.69	15.67	0.97	64.92
Last 5	13:40:45	1500.03	19.18	6.02	93.02	0.99	15.67	0.95	65.25
Variance 0			0.08	0.00	-0.06			-0.02	-0.24
Variance 1			-0.27	-0.00	0.33			-0.00	-0.08
Variance 2			-0.05	-0.01	-0.44			-0.02	0.33

Notes

Purging started 1315/stopped 1340. Parameter stabilized @ 1330. GWC-18 sampled @ 1345.

Grab Samples

GWC-18  
Sampled @ 1345

Product Name: Low-Flow System

Date: 2017-10-05 13:05:46

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 42.5 ft

Pump placement from TOC 32.5 ft

Well Information:

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.5 ft  
Screen Length 10 ft  
Depth to Water 10.92 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2796955 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	12:35:46	300.16	19.67	5.81	83.82	2.60	11.26	0.35	67.81
Last 5	12:40:46	600.03	19.72	5.81	82.99	1.97	11.27	0.33	67.76
Last 5	12:45:46	900.03	19.39	5.80	81.89	1.69	11.42	0.25	67.81
Last 5	12:50:46	1200.03	18.97	5.80	82.90	1.46	11.57	0.21	66.92
Last 5	12:55:46	1500.03	18.96	5.79	82.64	0.90	11.64	0.21	66.68
Variance 0			-0.33	-0.01	-1.10			-0.08	0.05
Variance 1			-0.42	0.00	1.01			-0.04	-0.89
Variance 2			-0.00	-0.01	-0.26			-0.00	-0.24

Notes

Purging started 1230/stopped 1255. Parameters stabilized @ 1245. GWC-19 taken @ 1300.

Grab Samples

GWC-19  
Samp taken @ 1300

Product Name: Low-Flow System

Date: 2017-10-06 10:43:53

Project Information:

Operator Name P. Harold  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 76.0 ft

Pump placement from TOC 66.0 ft

Well Information:

Well ID GWC-20  
Well diameter 2 in  
Well Total Depth 71.0 ft  
Screen Length 10 ft  
Depth to Water 8.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4292202 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.92 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	10:16:21	300.10	18.88	6.37	113.01	3.91	8.22	0.95	88.19
Last 5	10:21:21	599.63	18.79	6.26	112.66	3.19	8.22	0.94	77.49
Last 5	10:26:21	899.59	18.63	6.22	112.49	3.91	8.23	0.96	74.06
Last 5	10:31:21	1199.58	18.56	6.20	112.44	4.43	8.24	0.96	72.56
Last 5	10:36:21	1499.58	18.64	6.20	112.04	3.88	8.24	0.98	70.83
Variance 0			-0.16	-0.04	-0.17			0.02	-3.43
Variance 1			-0.07	-0.02	-0.05			0.00	-1.50
Variance 2			0.08	-0.00	-0.40			0.02	-1.73

Notes

Purging started 1010/stopped 1035. Parameters stabilized @ 1030. GWC-20 sampled @ 1040.

Grab Samples

GWC-20  
Sampled @ 1040

Product Name: Low-Flow System

Date: 2017-10-06 10:41:02

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 365491  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 48 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.3 ft  
Screen Length 10 ft  
Depth to Water 17.92 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3042443 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 21.48 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	10:19:10	900.03	18.43	5.53	58.08	0.65	19.25	0.41	-45.32
Last 5	10:24:10	1200.00	18.43	5.49	55.31	0.33	19.43	0.33	-47.23
Last 5	10:29:10	1500.00	18.43	5.48	54.77	0.35	19.54	0.31	-48.65
Last 5	10:34:10	1800.00	18.52	5.48	54.31	0.21	19.66	0.29	-50.61
Last 5	10:39:10	2100.00	18.60	5.47	53.87	0.22	19.71	0.28	-52.43
Variance 0			0.00	-0.01	-0.54			-0.02	-1.42
Variance 1			0.09	-0.00	-0.46			-0.02	-1.97
Variance 2			0.08	-0.01	-0.44			-0.01	-1.82

Notes

Purge Time: 1004/1039. Parameters stabilized at 1039. GWC-21 sampled at 1045.

Grab Samples

GWC-21  
1045

Product Name: Low-Flow System

Date: 2017-10-05 10:42:06

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 82 ft

Pump placement from TOC 72 ft

Well Information:

Well ID GWC-22  
Well diameter 2 in  
Well Total Depth 77.59 ft  
Screen Length 10 ft  
Depth to Water 28.48 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5810007 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.24 in  
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:20:21	2999.91	20.45	6.39	133.16	6.48	28.96	3.83	88.88
Last 5	10:25:21	3299.91	20.59	6.39	133.01	6.00	29.00	3.84	88.10
Last 5	10:30:21	3599.91	20.74	6.40	133.05	4.47	29.00	3.83	87.23
Last 5	10:35:21	3899.96	20.89	6.40	132.87	3.00	29.00	3.82	86.54
Last 5	10:40:21	4199.92	21.07	6.40	132.88	3.04	29.00	3.82	85.98
Variance 0			0.15	0.00	0.04			-0.01	-0.88
Variance 1			0.15	0.00	-0.19			-0.01	-0.68
Variance 2			0.18	0.00	0.01			0.00	-0.56

Notes

9:30-10:40. Parameters stable at 10:40. Sample GWC-22 at 10:43. Sample FB-3 at 10:50

Grab Samples

GWC-22  
Sample at 10:43  
FB-3  
Sample at 10:50

Product Name: Low-Flow System

Date: 2017-10-05 10:36:21

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 70 ft

Pump placement from TOC 62 ft

Well Information:

Well ID GWC-23  
Well diameter 2 in  
Well Total Depth 67.29 ft  
Screen Length 10 ft  
Depth to Water 38.74 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5274396 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.6 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:13:17	600.03	18.50	5.95	47.16	1.49	40.14	4.48	111.30
Last 5	10:18:17	900.03	18.53	5.95	46.94	0.91	40.23	5.09	96.98
Last 5	10:23:17	1200.03	18.56	5.95	47.12	1.00	40.29	5.36	88.62
Last 5	10:28:17	1500.03	18.59	5.96	47.28	0.45	40.29	5.48	83.80
Last 5	10:33:17	1800.03	18.68	5.95	47.02	0.58	40.29	5.52	81.08
Variance 0			0.03	0.00	0.18			0.27	-8.35
Variance 1			0.03	0.00	0.15			0.12	-4.83
Variance 2			0.09	-0.00	-0.26			0.04	-2.72

Notes

Began purging at 1003. Parameters stable at 1033. Stop purging at 1033. Sample GWC-23 at 1040. FERB-2 taken at 1100.

Grab Samples

FERB-2  
1100  
GWC-23  
1040

Product Name: Low-Flow System

Date: 2017-10-04 13:25:06

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 59 ft

Pump placement from TOC 51 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 46.08 ft

Pumping Information:

Final Pumping Rate 400 mL/min  
Total System Volume 0.4783419 L  
Calculated Sample Rate 240 sec  
Stabilization Drawdown 60.24 in  
Total Volume Pumped 8.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:05:58	240.07	19.23	5.65	39.16	--	--	7.65	104.21
Last 5	13:09:58	480.00	18.19	5.58	41.15	1.94	47.90	7.63	102.84
Last 5	13:13:58	720.01	18.00	5.57	41.98	--	--	7.37	98.70
Last 5	13:17:58	960.00	17.99	5.53	41.39	1.14	49.28	7.66	96.97
Last 5	13:21:58	1200.01	17.96	5.54	41.25	--	--	7.88	96.62
Variance 0			-0.18	-0.00	0.82			-0.26	-4.13
Variance 1			-0.01	-0.04	-0.58			0.29	-1.73
Variance 2			-0.03	0.01	-0.14			0.22	-0.35

Notes

Begin purging at 1301. Purge using 3 well volume method since depth to water was below top of casing. Well went dry at 1323. FB-1 taken.

Grab Samples

FB-1  
1320



Product Name: Low-Flow System

Date: 2017-10-05 12:45:32

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 66 ft

Pump placement from TOC 57.5 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 57.98 ft  
Screen Length 10 ft  
Depth to Water 50.05 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5095859 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 65.4 in  
Total Volume Pumped 18.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:22:14	2700.03	19.15	6.36	120.26	0.44	55.50	2.00	50.39
Last 5	12:27:14	3000.03	19.28	6.36	121.37	0.59	55.50	1.80	49.01
Last 5	12:32:14	3300.02	19.30	6.36	121.97	0.31	55.50	1.67	48.01
Last 5	12:37:14	3600.01	19.23	6.36	122.66	0.40	55.50	1.57	47.12
Last 5	12:42:14	3900.01	19.39	6.36	122.75	0.41	55.50	1.49	46.43
Variance 0			0.02	0.00	0.60			-0.13	-1.00
Variance 1			-0.07	-0.00	0.70			-0.10	-0.89
Variance 2			0.16	0.00	0.08			-0.08	-0.69

Notes

Begin purging at 1137. Purge using 3 well volume method since depth to water was below top of screen. Purge well volumes at 0.5L/min. Lower purge rate to 0.1L/min after 3rd well volume at 1207. Parameters stable at 1242. Stop purging at 1242. Sample GWC-25 at 1250.

Grab Samples

GWC-25  
1250

Product Name: Low-Flow System

Date: 2017-10-04 09:38:08

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 43 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.96 ft  
Screen Length 10 ft  
Depth to Water 31.88 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4069272 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 31.2 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:15:33	600.03	17.88	5.85	51.14	7.63	33.91	7.00	107.39
Last 5	09:20:33	900.03	17.69	5.79	51.68	4.30	34.12	7.16	97.06
Last 5	09:25:33	1200.03	17.65	5.77	50.44	4.68	34.26	7.15	88.35
Last 5	09:30:33	1500.03	17.66	5.76	49.74	3.12	34.46	7.17	83.78
Last 5	09:35:33	1800.03	17.72	5.75	49.31	3.05	34.48	7.14	80.83
Variance 0			-0.04	-0.02	-1.24			-0.02	-8.71
Variance 1			0.01	-0.01	-0.70			0.02	-4.57
Variance 2			0.05	-0.01	-0.43			-0.03	-2.95

Notes  
Begin purging at 0905. Parameters stable at 0935. Stop purging at 0935. Sample GWC-26 at 0945. DUP-2 taken.

Grab Samples  
GWC-26  
0945  
DUP-2  
0945

Product Name: Low-Flow System

Date: 2017-10-03 16:33:39

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 73 ft

Pump placement from TOC 65 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.8 ft  
Screen Length 10 ft  
Depth to Water 45.42 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.54083 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 10.44 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	16:10:27	900.03	21.66	5.73	31.39	17.70	46.29	5.44	23.07
Last 5	16:15:27	1200.03	21.95	5.71	30.59	8.70	46.29	5.31	26.21
Last 5	16:20:27	1500.03	22.06	5.72	29.50	4.75	46.29	5.03	25.76
Last 5	16:25:27	1800.03	22.07	5.70	30.17	3.91	46.29	4.79	27.98
Last 5	16:30:27	2100.03	22.15	5.67	29.38	2.94	46.29	4.65	31.13
Variance 0			0.11	0.01	-1.09			-0.27	-0.44
Variance 1			0.02	-0.02	0.67			-0.24	2.22
Variance 2			0.08	-0.03	-0.79			-0.14	3.15

Notes

Begin purging at 1555. Parameters stable at 1630. Stop purging at 1630. Sample GWC-27 at 1632.

Grab Samples

GWC-27  
1632

Product Name: Low-Flow System

Date: 2017-10-04 16:03:15

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 52 ft

Pump placement from TOC 45 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.6 ft  
Screen Length 10 ft  
Depth to Water 27.78 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.447098 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.96 in  
Total Volume Pumped 13.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:41:21	4199.96	21.95	6.55	54.04	5.58	28.36	10.13	80.96
Last 5	15:46:21	4499.96	22.30	6.54	53.66	5.50	28.34	9.93	81.00
Last 5	15:51:21	4799.96	23.74	6.54	53.31	4.70	28.30	9.89	80.51
Last 5	15:56:21	5099.96	23.99	6.56	53.10	4.87	28.30	10.08	80.36
Last 5	16:01:21	5399.96	23.70	6.58	53.14	4.84	28.36	10.05	80.48
Variance 0			1.44	0.00	-0.35			-0.03	-0.49
Variance 1			0.25	0.02	-0.21			0.19	-0.15
Variance 2			-0.29	0.01	0.04			-0.03	0.12

Notes

14:31-16:01. Parameters stable at 16:01. Sampling GWC-30 at 16:05

Grab Samples

GWC-30  
Sampling at 16:05

Product Name: Low-Flow System

Date: 2017-10-05 12:16:20

Project Information:

Operator Name Myles Rogers  
Company Name ERM  
Project Name GPC-Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 513028  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter .17 in  
Tubing Length 40 ft

Pump placement from TOC 36 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 32.80 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3935369 L  
Calculated Sample Rate 60 sec  
Stabilization Drawdown 1.2 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:12:12	60.03	35.43	6.92	0.44	7.50	32.85	5.55	113.92
Last 5	12:13:12	120.02	29.80	6.18	137.32	7.80	32.90	5.42	55.45
Last 5	12:14:12	180.02	26.34	5.97	140.94	--	0.00	5.71	52.37
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-5.62	-0.73	136.88			-0.13	-58.47
Variance 2			-3.46	-0.21	3.62			0.29	-3.08

Notes

Purge 2 readings then sample radium bottle.  
Sample GWC-31 radium at 12:15

Grab Samples

GWC-31  
Radium sampled at 12:15

Product Name: Low-Flow System

Date: 2017-10-05 14:15:23

Project Information:

Operator Name T. Payne  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model LaMotte 2020We

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 40 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.1 ft  
Screen Length 10 ft  
Depth to Water 25.01 ft

Pumping Information:

Final Pumping Rate 450 mL/min  
Total System Volume 0.3935369 L  
Calculated Sample Rate 240 sec  
Stabilization Drawdown 97.08 in  
Total Volume Pumped 14.85 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:55:24	960.03	20.10	6.17	109.71	--	--	7.19	55.18
Last 5	13:59:24	1200.03	20.06	6.17	110.42	--	--	6.82	54.66
Last 5	14:03:24	1440.03	19.97	6.18	114.20	1.51	29.43	6.40	53.95
Last 5	14:07:24	1680.03	20.00	6.17	112.43	--	--	5.77	52.74
Last 5	14:11:24	1920.03	21.53	6.18	118.91	--	--	6.37	43.37
Variance 0			-0.09	0.02	3.78			-0.42	-0.71
Variance 1			0.03	-0.01	-1.77			-0.63	-1.20
Variance 2			1.53	0.01	6.48			0.60	-9.37

Notes

Begin purging at 1339. Purge 3 well volumes since depth to water was below top of screen. Purged well volumes at 0.45L/min. Well went dry at

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 10:35:09

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 33 ft

Pump placement from TOC 18.5 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.46 ft  
Screen Length 10 ft  
Depth to Water 13.89 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.237293 L  
Calculated Sample Rate 180 sec  
Stabilization Drawdown 114.84 in  
Total Volume Pumped 22.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	10:17:59	2879.91	20.05	6.33	170.63	--	--	8.34	89.53
Last 5	10:20:59	3059.91	20.12	6.29	164.56	1.64	22.20	8.66	89.01
Last 5	10:23:59	3239.91	20.16	6.28	166.86	1.70	22.30	8.38	88.96
Last 5	10:26:59	3419.91	20.08	6.31	173.64	1.65	22.89	8.07	89.59
Last 5	10:29:59	3599.91	20.21	6.36	176.92	1.68	23.31	7.34	89.48
Variance 0			0.04	-0.01	2.29			-0.28	-0.04
Variance 1			-0.08	0.04	6.79			-0.31	0.62
Variance 2			0.13	0.04	3.28			-0.73	-0.11

Notes

Purge Time: 0930/1032. Well dry at 1032. No sample collected.

Grab Samples



# GROUNDWATER SAMPLING LOG SHEET

Client: GPC Project No.: 0372406 Sampling Date: 10-3-2017

Site: Plant Wansley Location: (circle one) Gypsum LF AP Sampler's Name: V. Thomas

Well ID: GWC-34 Pump Type/Model: Alexis Peristaltic Sample Collection Time: 1120

Total Depth (ft): 50.8 (screen: 40.8-50.8) Tubing Material: LDPE Sample Purge Rate (mL/min)<sup>2,3</sup>: 250

Depth to Water (ft): 5.11 Pump Intake Depth (ft): 45 Sample ID: GWC-34

Well Diameter (in): 2 Start/Stop Purge Time: 1011 to 1041 AND 1049 to 1114 Laboratory Analyses: see COC

Well Volume (gal) = 0.041d<sup>2</sup>h: \_\_\_\_\_ Purge Rate (mL/min)<sup>1</sup>: 250

Well Volume (L) = gal \* 3.785: \_\_\_\_\_ Total Purge Volume (L): \_\_\_\_\_

d = well diameter (inches) h = length of water column (feet)

Purge Method: Low-Flow Well Volume Other: \_\_\_\_\_ QA/QC Collected? YES

Well Type: Flush Stick Up Sampling Method<sup>3</sup>: Pump Discharge Other: \_\_\_\_\_ QA/QC I.D. DUP-1 @ 1120

Well Lock: Yes No

Well Cap Condition: Good Replace

Well Tag Present: Yes No

**All sample containers requiring chemical preservation properly preserved prior to demob from well?**  Yes  No

Time	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H <sub>2</sub> O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1010	19.67	144.80	0.41	6.31	57.50	5.12	250	1.25	5.38	* debris and ants
1021	19.09	71.80	2.60	6.26	53.10	5.51	250	2.50	5.38	located on the interior
1026	19.05	61.40	3.71	6.12	53.70	3.25	250	3.75	5.38	siding of well casing
1031	19.00	58.60	3.79	6.04	55.50	2.48	250	5.0	5.38	
1036	19.03	57.20	3.89	6.00	56.30	2.40	250	6.25	5.38	
1041						2.18	250	7.50	5.38	
	SmartROLL Malfunction @ 1041 - frozen screen - no data									
	collected or displayed. purge restarted at 1049 - purge rate									
	of 250 mL/min. original insitu log Emailed to A-E1113.									
1054	19.58	56.20	4.07	5.95	57.60	1.13	250	8.75	5.34	
1059	19.25	55.00	4.22	5.93	57.80	0.84	250	10.00	5.36	
1104	19.32	54.80	4.27	5.92	57.90	0.74	250	11.25	5.38	
1109	19.27	54.70	4.27	5.92	58.40	0.85	250	12.50	5.38	
1114	19.25	54.40	4.27	5.91	58.90	0.82	250	13.75	5.38	
1120	SAMPLE TIME									
										purge time: 1011/1114
										GWC-34
										parameters stable at 1114
										GWC-34 sampled at 1120
										DUP-1 sampled at 1120
<b>Stabilizing Criteria<sup>4,5</sup></b>		+/- 5%	0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater) <sup>9</sup>	+/- 0.1 SU		< 5 NTUs	> 100 mL < 250 mL	> 3L	< 0.33 ft <sup>6,7</sup>	

(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 within 3 consecutive readings. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft per 3 readings.  
 (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)



Product Name: Low-Flow System

Date: 2017-10-03 12:52:40

Project Information:

Operator Name V. Thomas  
Company Name ERM  
Project Name GPC - Plant Wansley  
Site Name Gypsum LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 364456  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic  
Tubing Type LDPE  
Tubing Diameter 0.17 in  
Tubing Length 50 ft

Pump placement from TOC 35 ft

Well Information:

Well ID GWC-35  
Well diameter 2 in  
Well Total Depth 40.33 ft  
Screen Length 10 ft  
Depth to Water 8.70 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3131711 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.24 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10%		+/- 0.2	+/- 25
Last 5	12:29:06	300.10	22.03	5.74	58.35	1.11	8.72	2.22	57.86
Last 5	12:34:06	600.03	21.19	5.66	55.35	2.21	8.72	2.44	56.50
Last 5	12:39:06	900.02	21.01	5.64	54.58	0.60	8.72	2.53	56.37
Last 5	12:44:06	1200.02	20.92	5.63	54.24	0.57	8.72	2.58	56.54
Last 5	12:49:06	1500.02	21.01	5.62	54.10	0.54	8.72	2.58	56.74
Variance 0			-0.18	-0.02	-0.76			0.08	-0.13
Variance 1			-0.09	-0.01	-0.35			0.06	0.17
Variance 2			0.09	-0.00	-0.14			0.00	0.20

Notes

Purge Time: 1224/1249. Parameters stabilized at 1249. GWC-35 sampled at 1300.

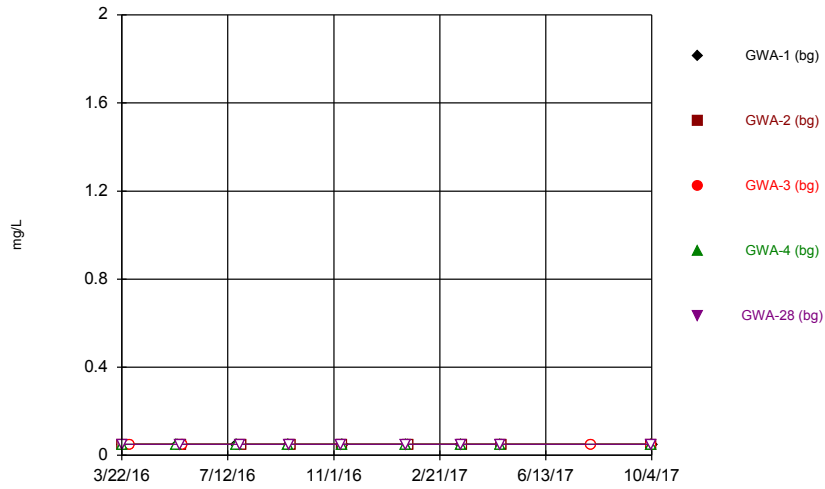
Grab Samples

GWC-35  
1300

## Appendix B

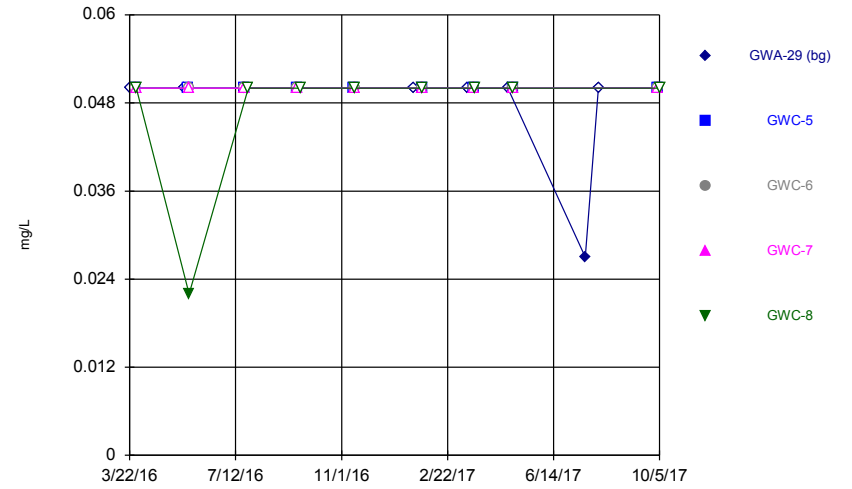
### Statistical Analyses

Time Series



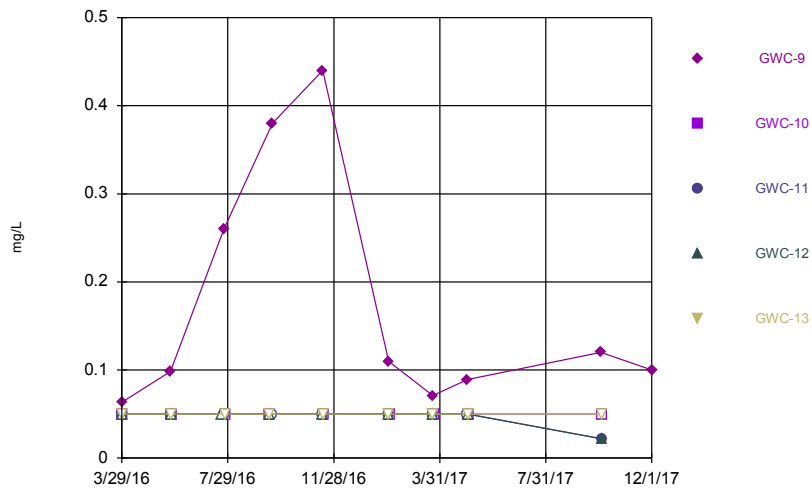
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



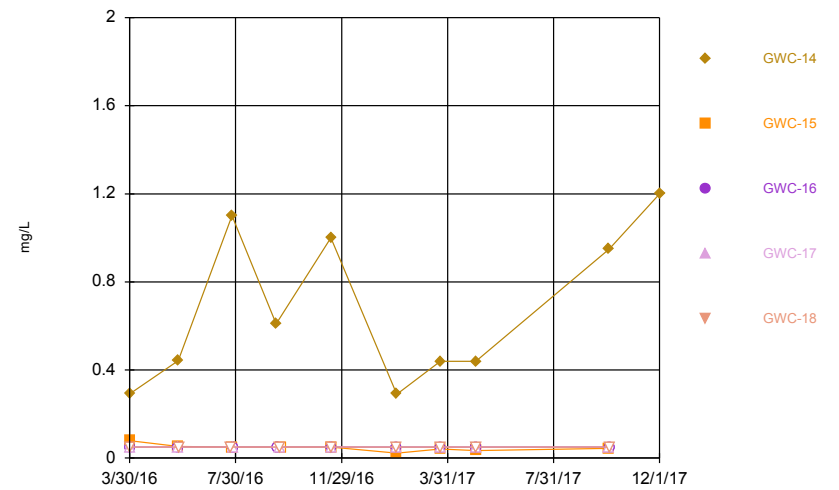
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



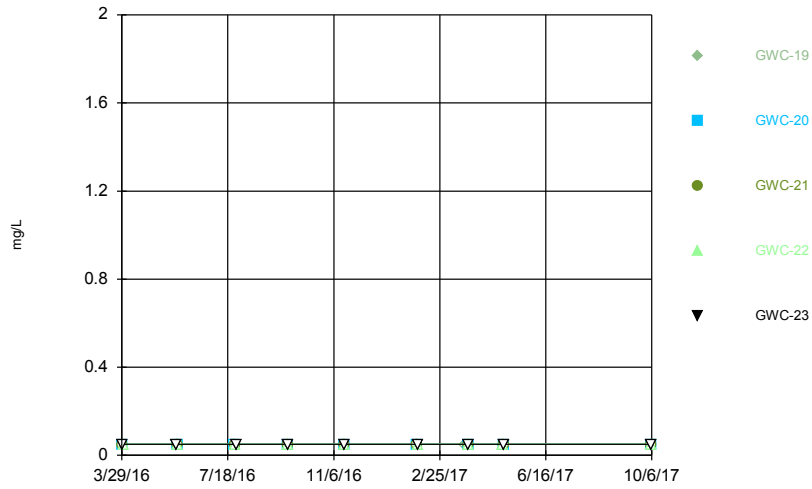
Constituent: Boron Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



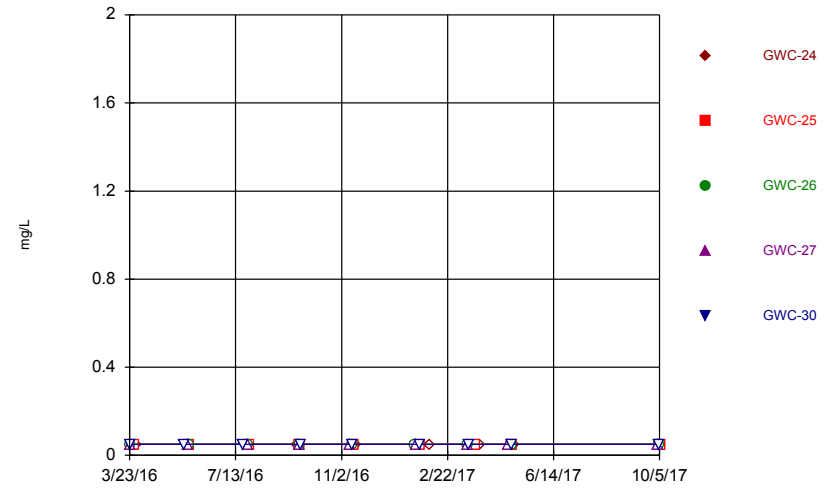
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



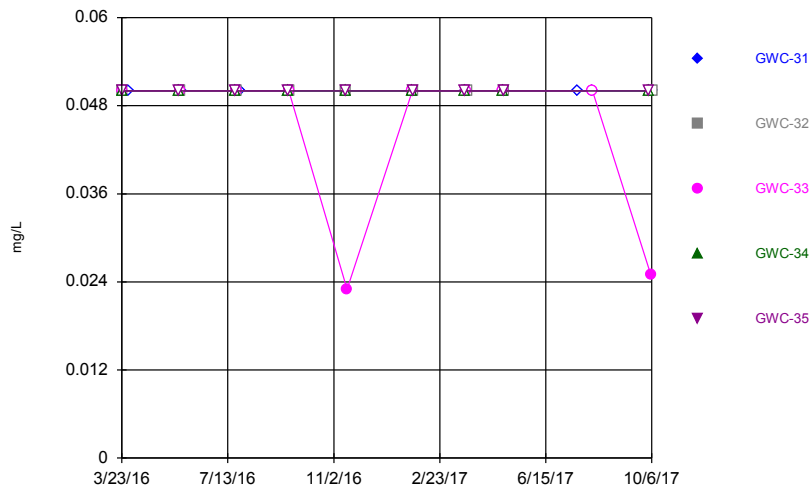
Constituent: Boron Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



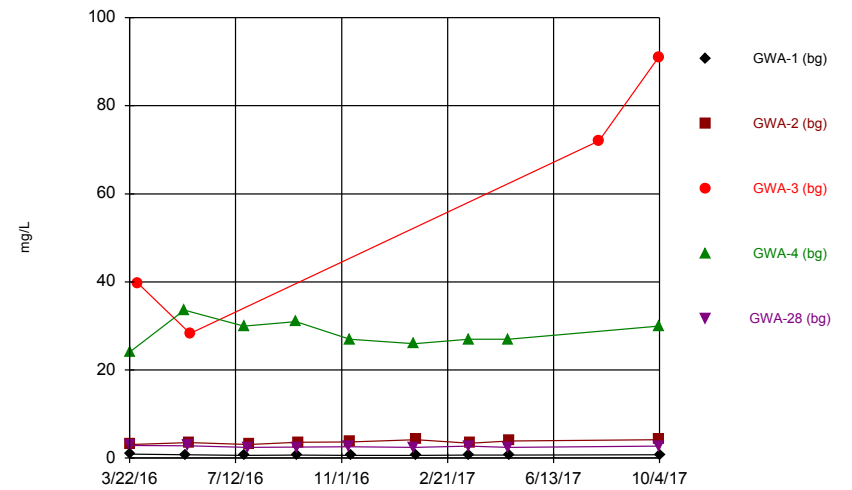
Constituent: Boron Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



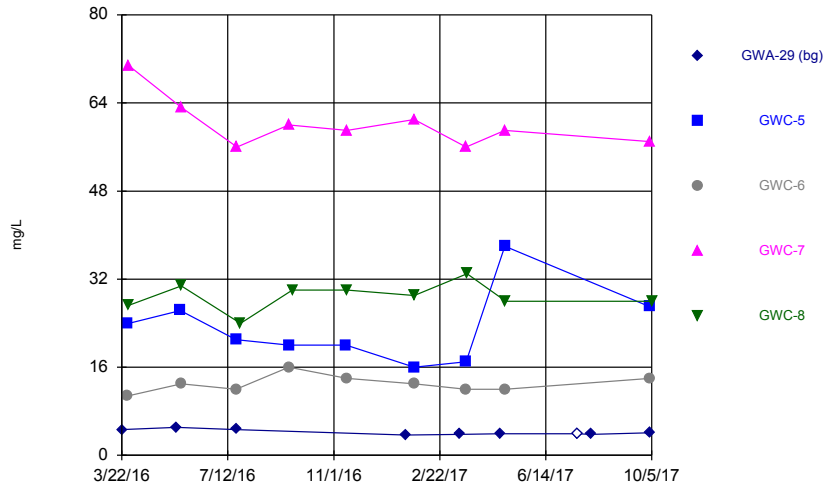
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



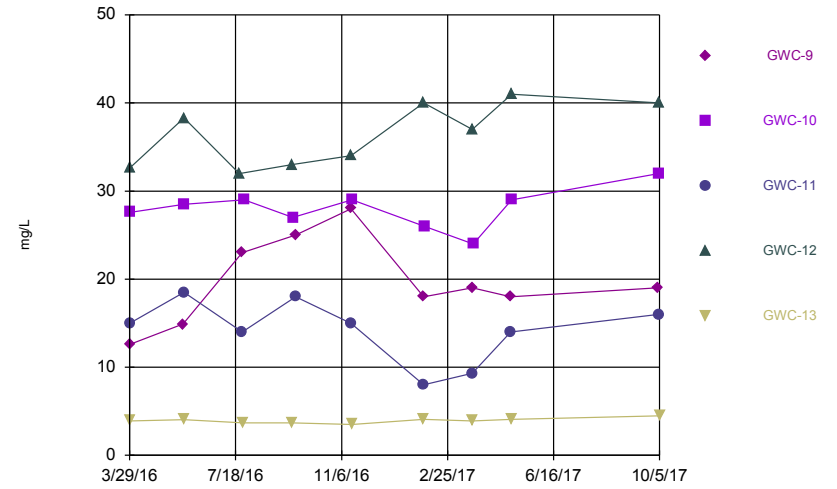
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



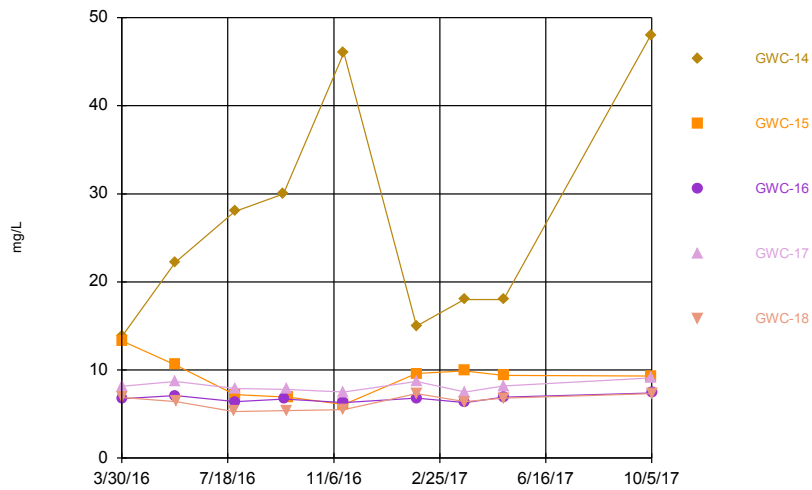
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



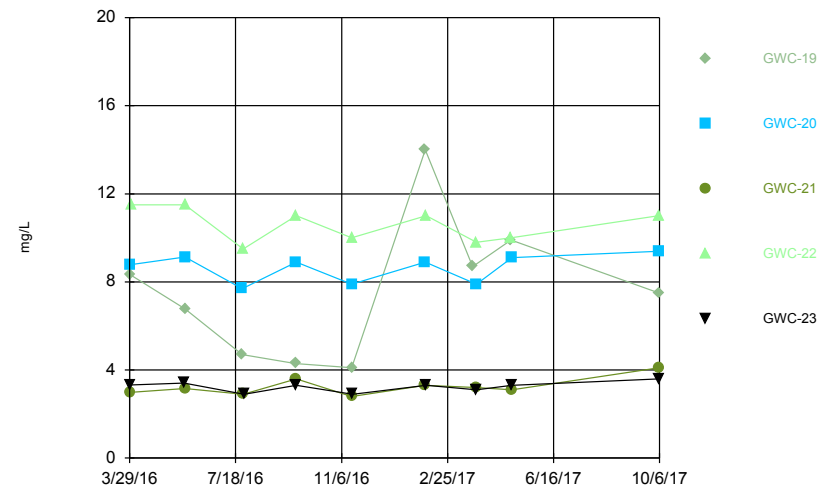
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



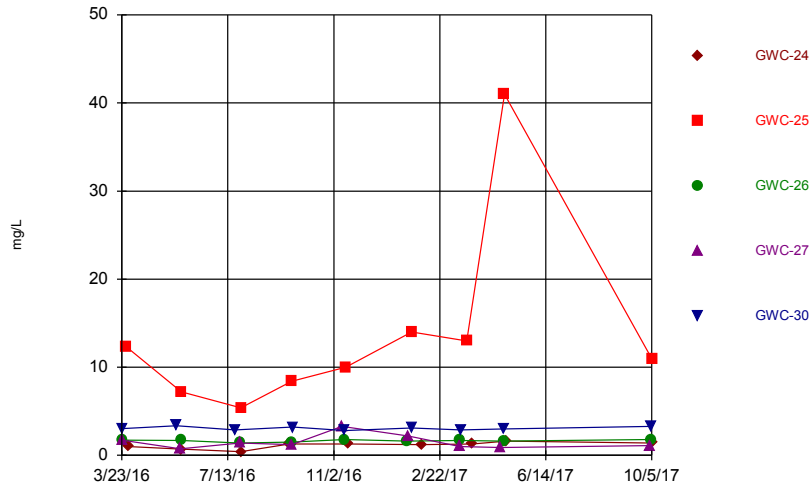
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



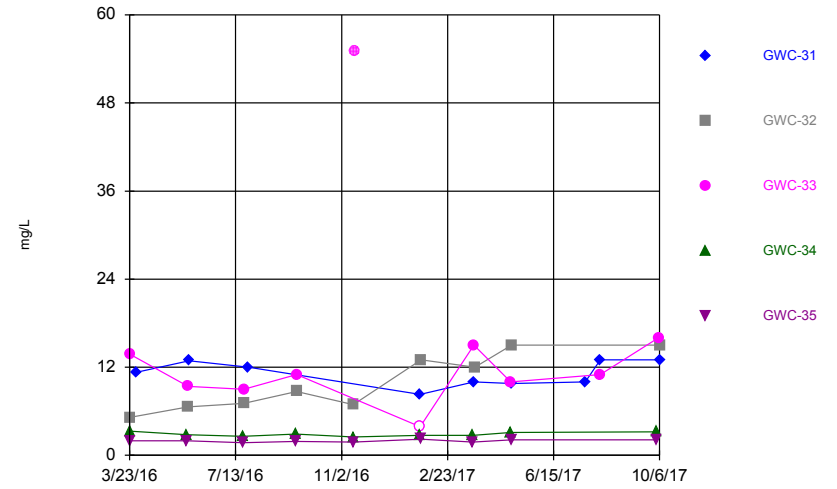
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



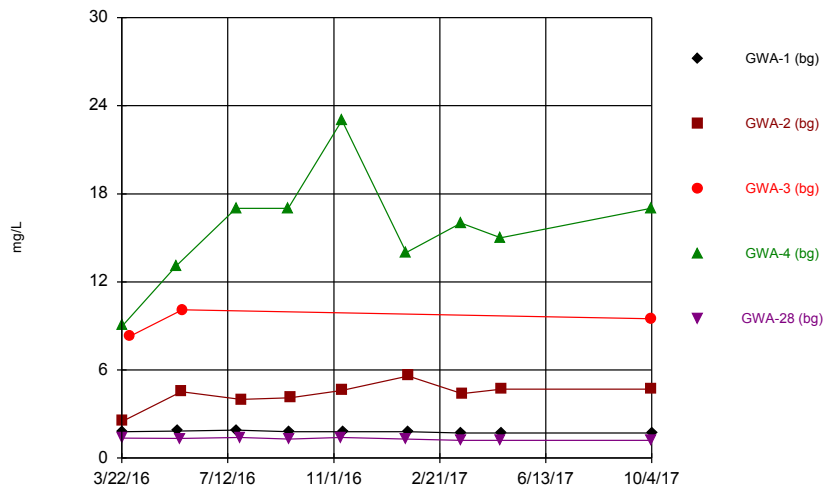
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 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



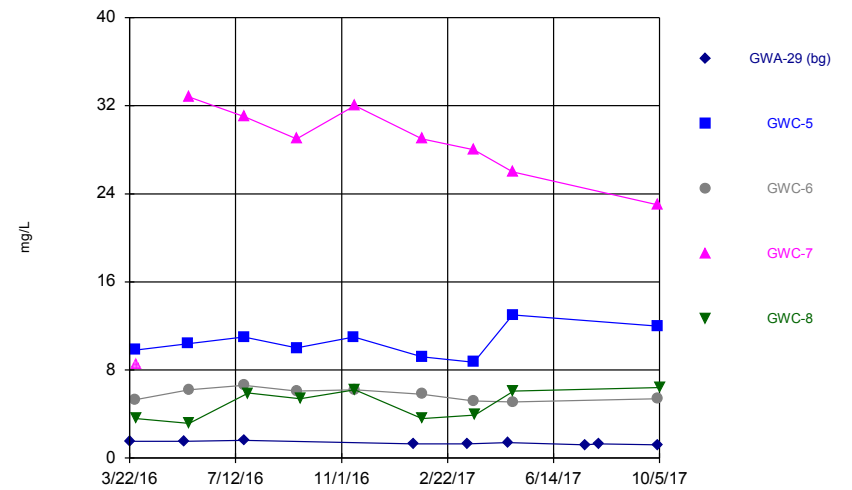
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 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



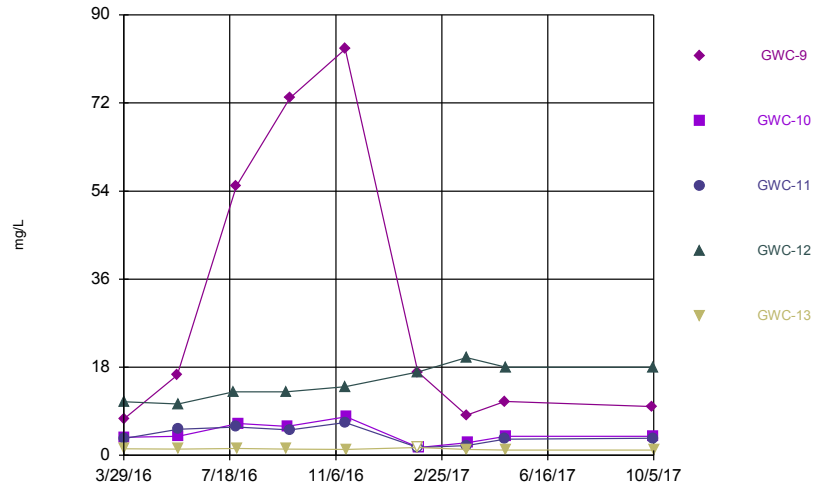
Constituent: Chloride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



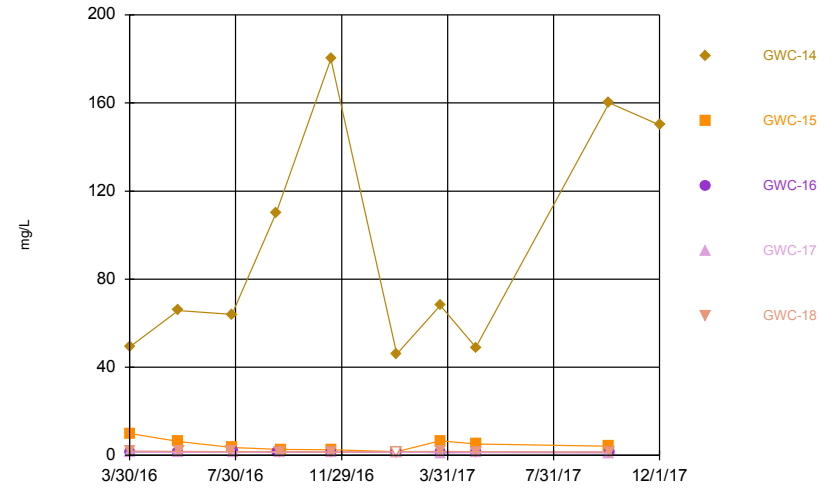
Constituent: Chloride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



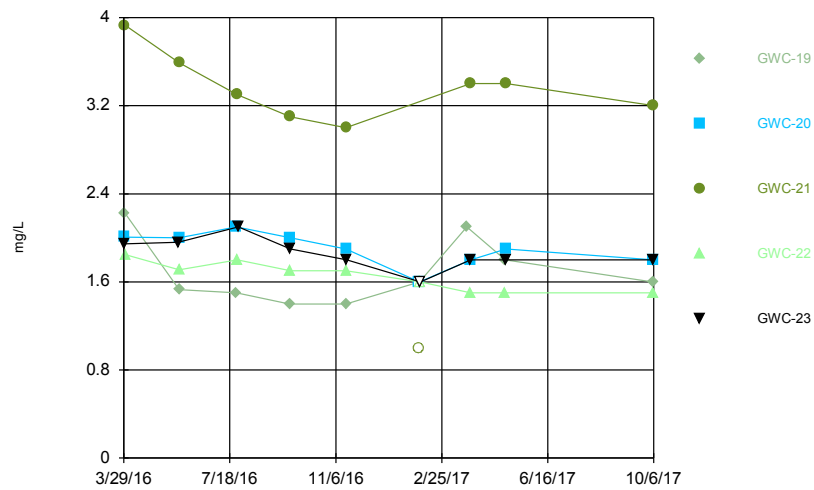
Constituent: Chloride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



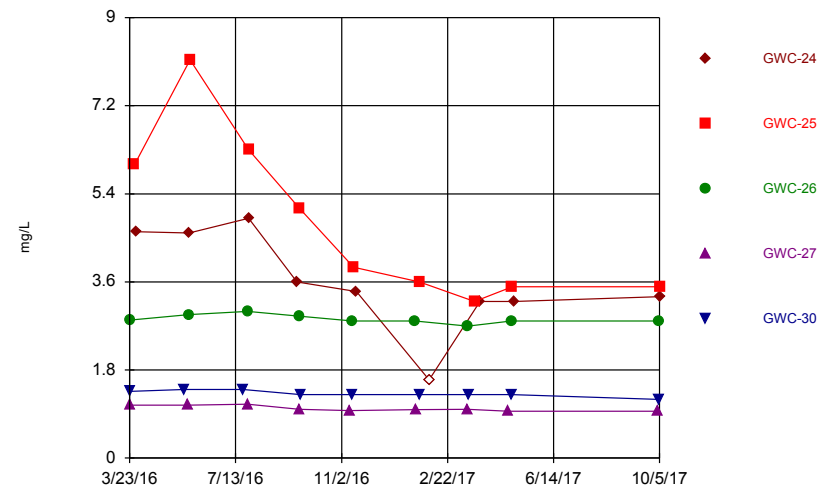
Constituent: Chloride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



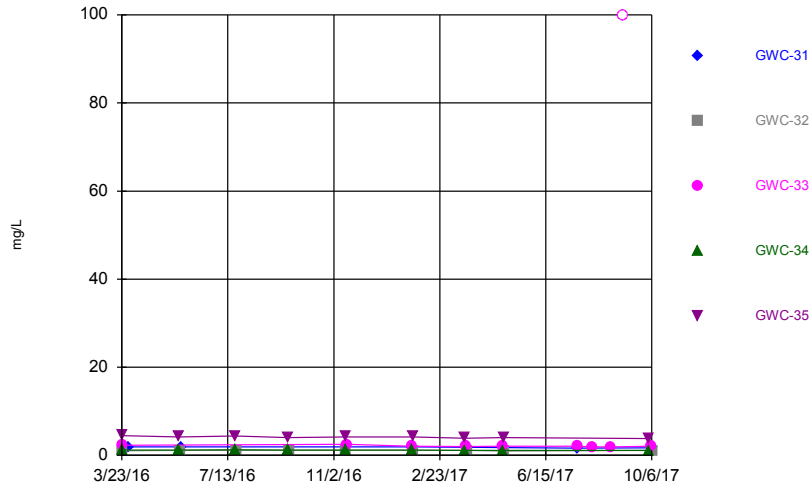
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



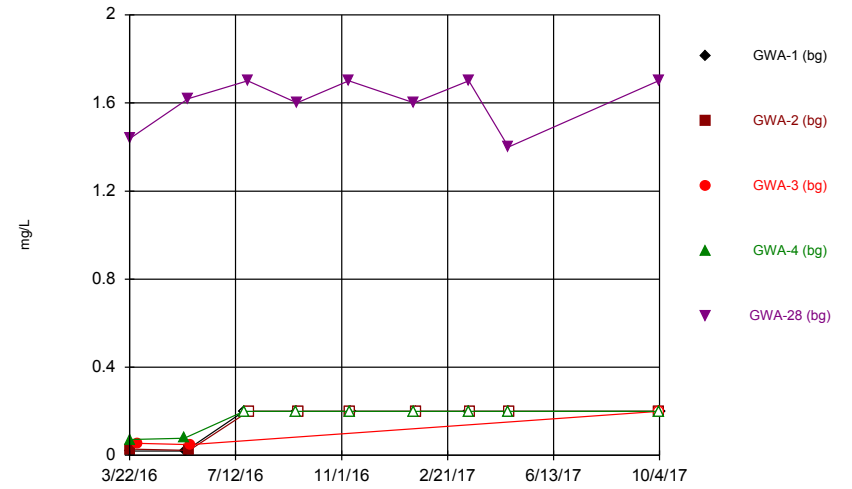
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



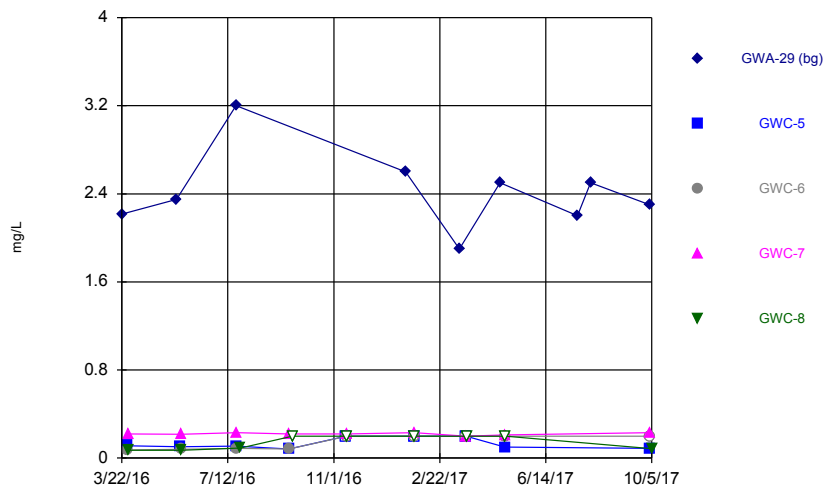
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



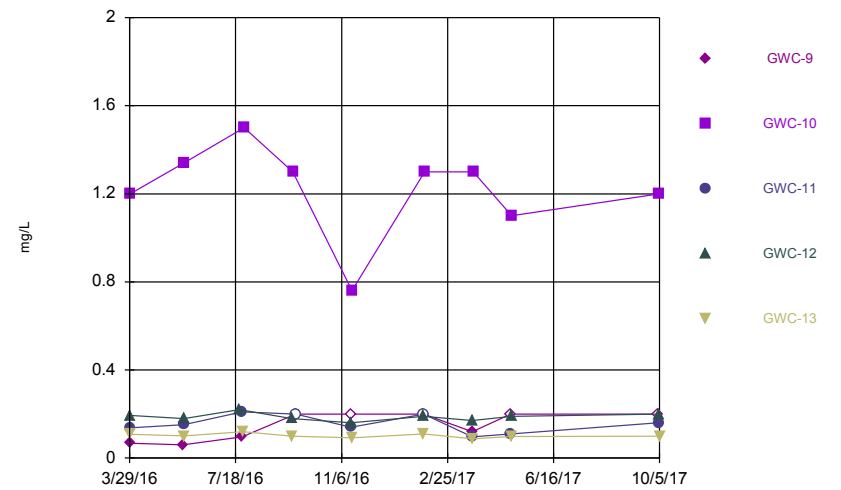
Constituent: Fluoride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



Constituent: Fluoride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

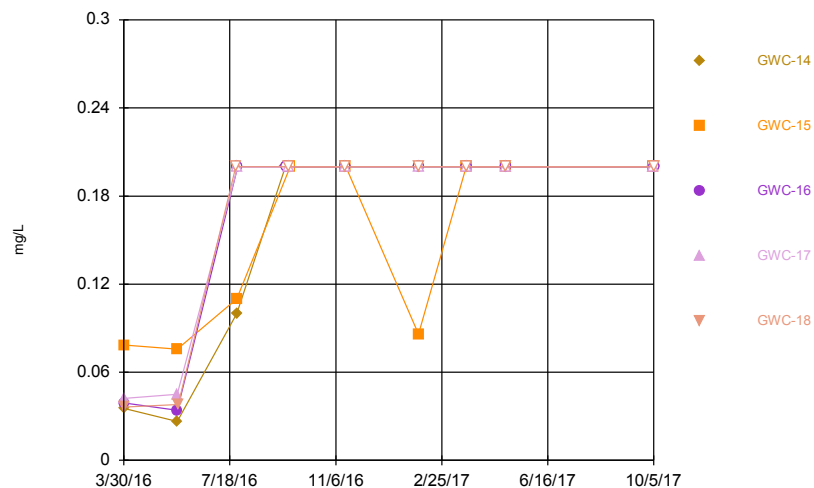
Time Series



Constituent: Fluoride Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

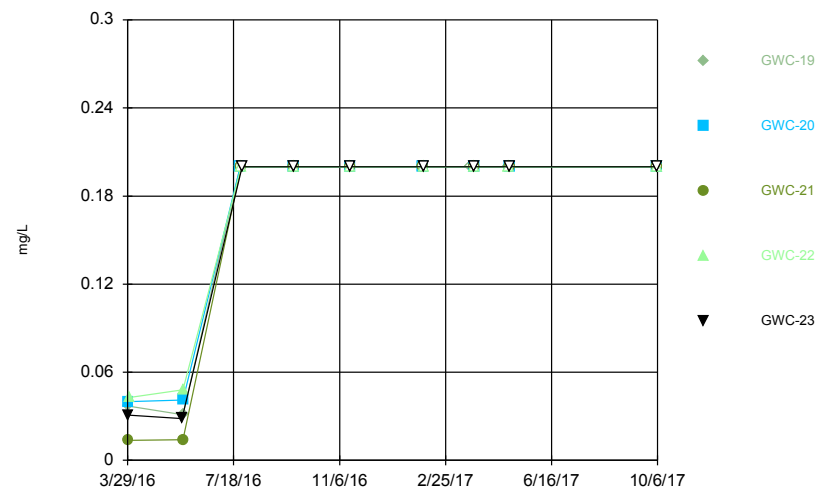


### Time Series



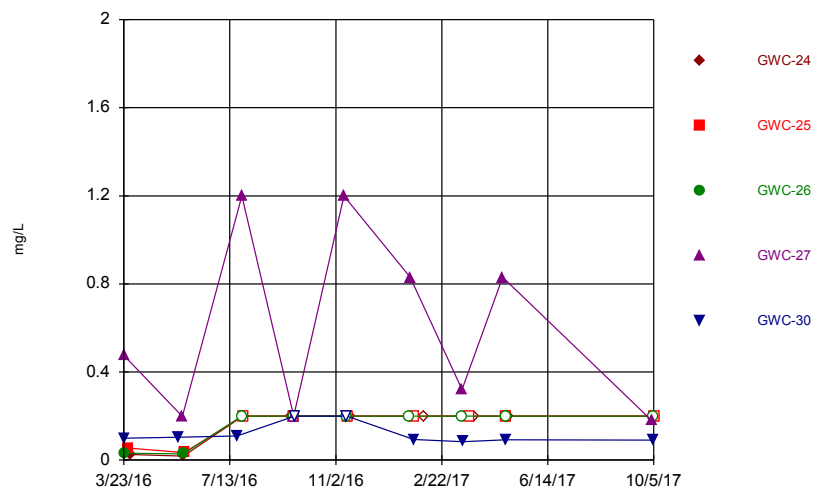
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



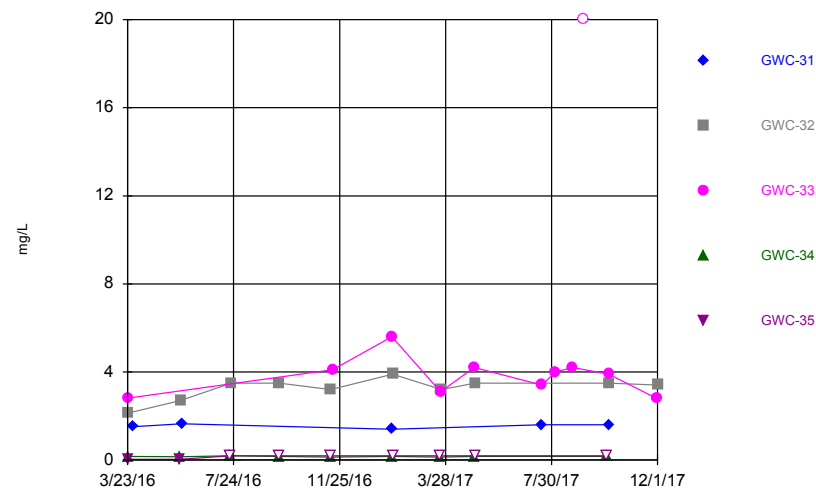
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



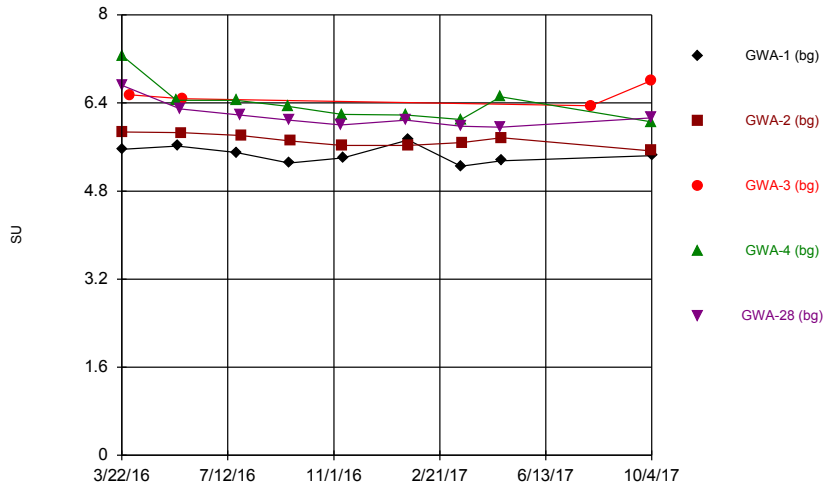
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



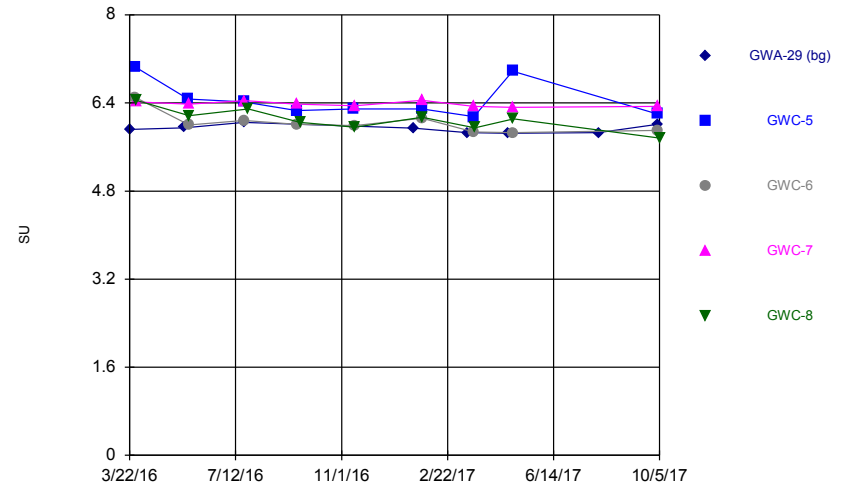
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



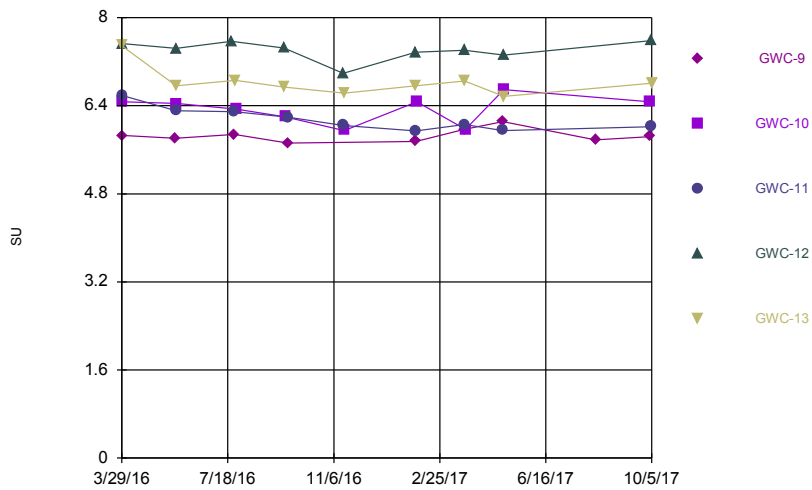
Constituent: pH Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



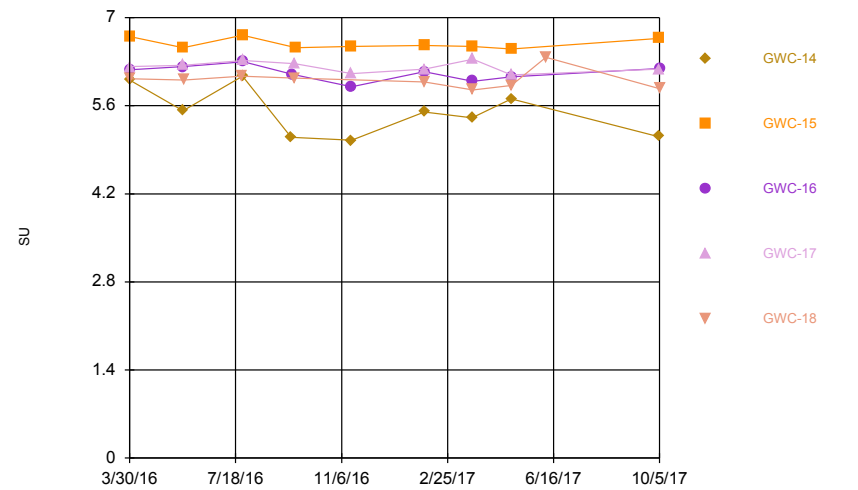
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



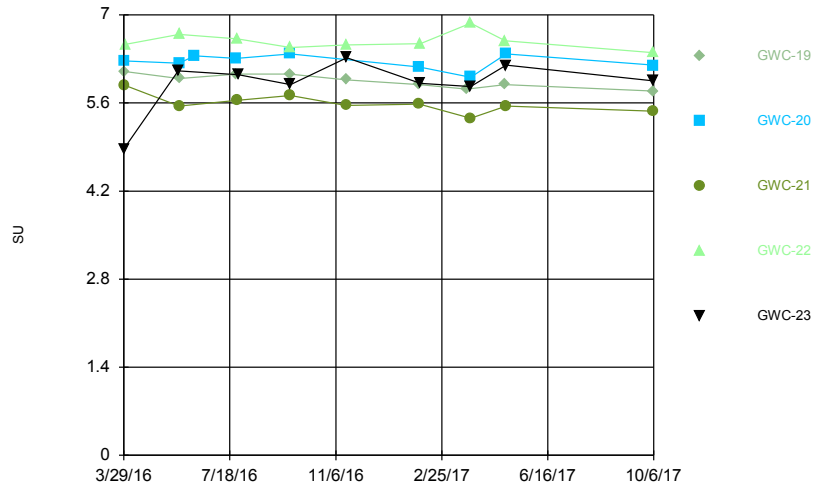
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



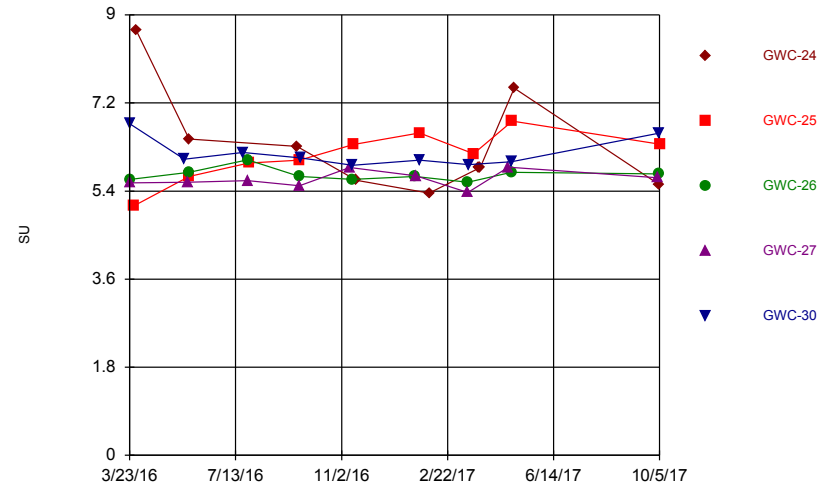
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



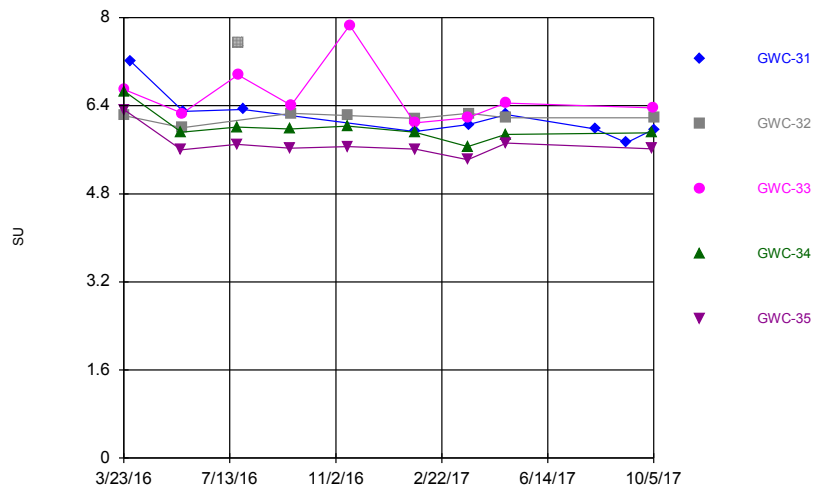
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 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



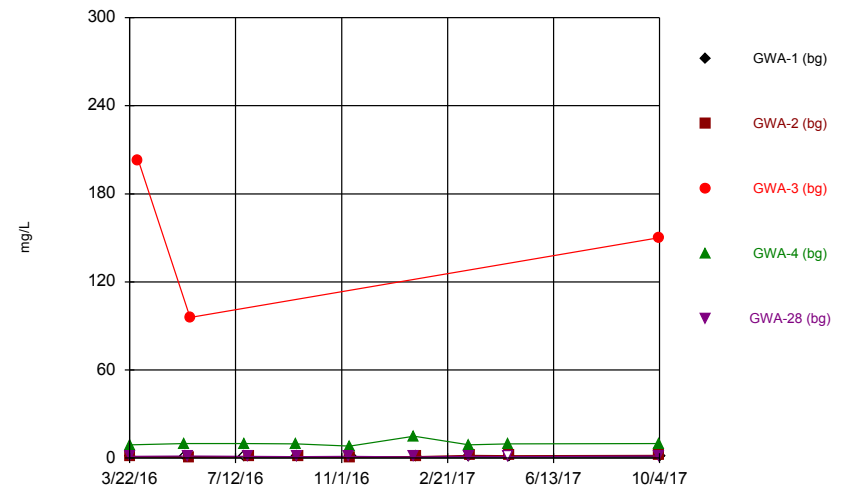
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 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



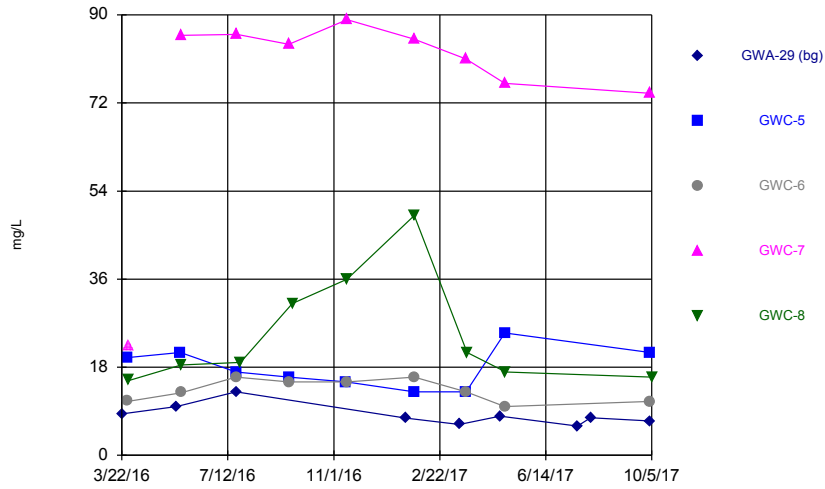
Constituent: pH Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



Constituent: Sulfate Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

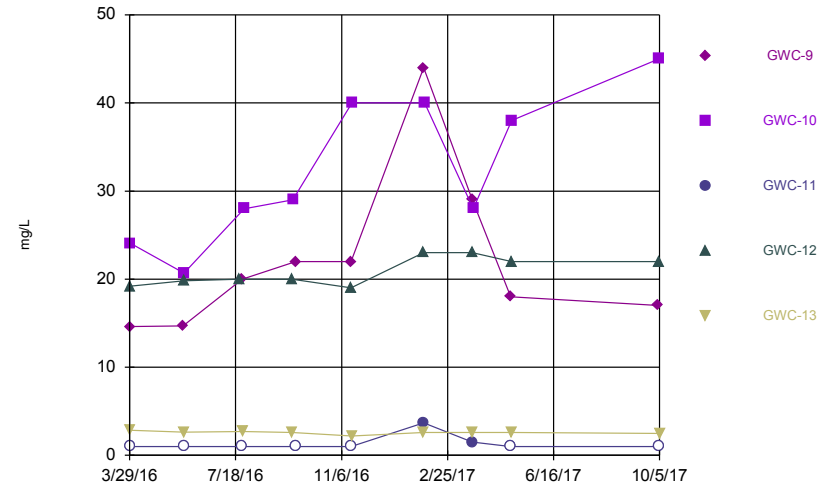
Time Series



Constituent: Sulfate Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Hollow symbols indicate censored values.

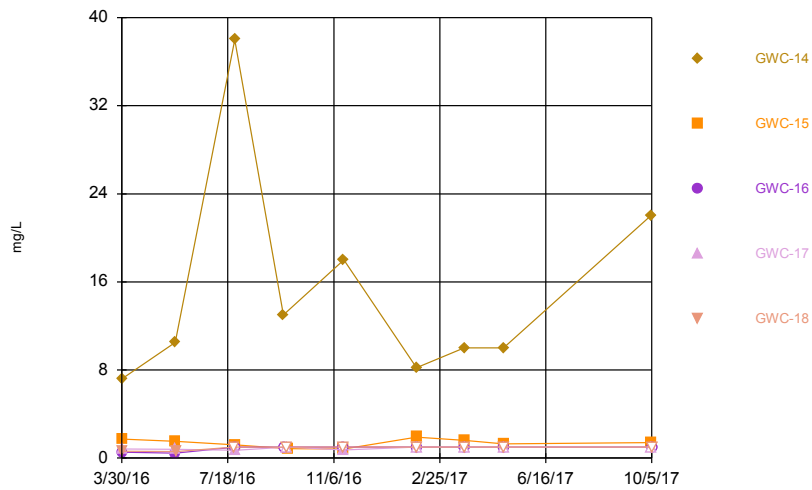
Time Series



Constituent: Sulfate Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Hollow symbols indicate censored values.

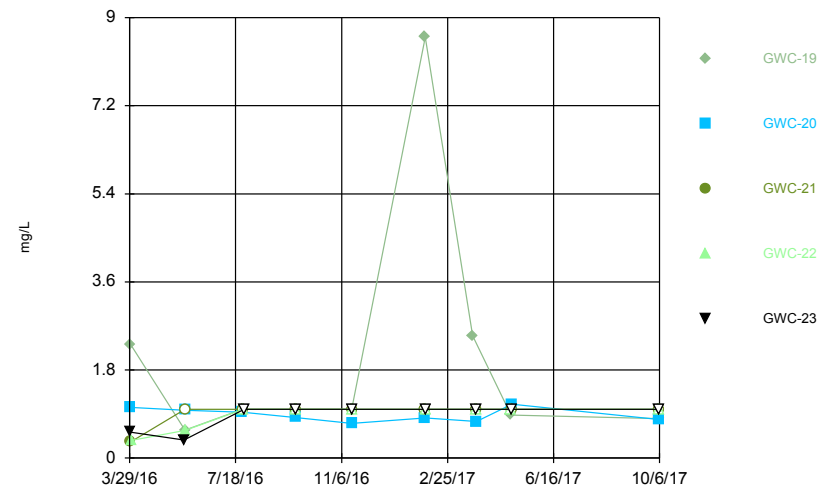
Time Series



Constituent: Sulfate Analysis Run 1/26/2018 4:14 PM View: 1. Time Series - All Wells  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

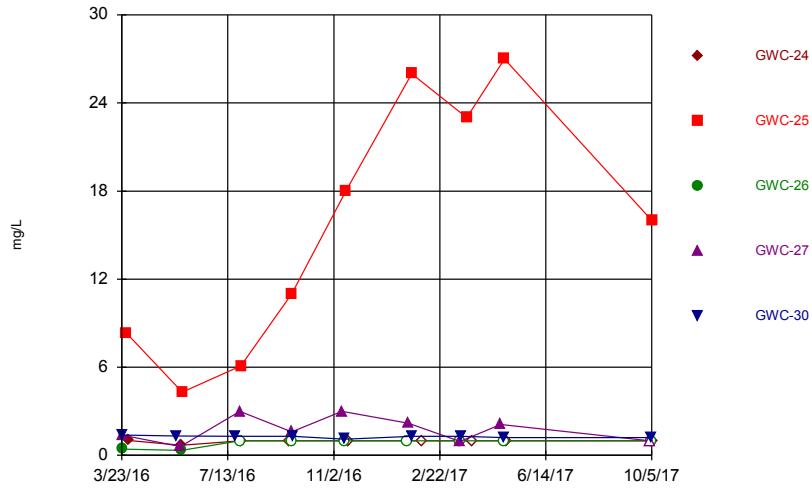
Hollow symbols indicate censored values.

Time Series



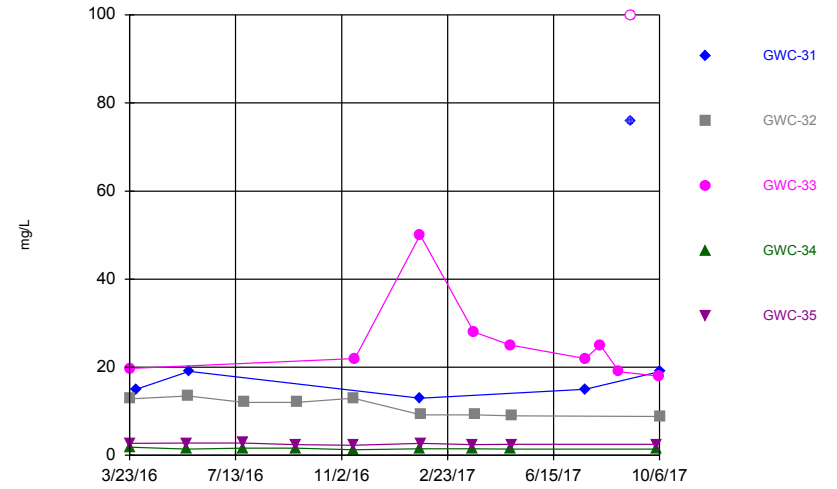
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 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



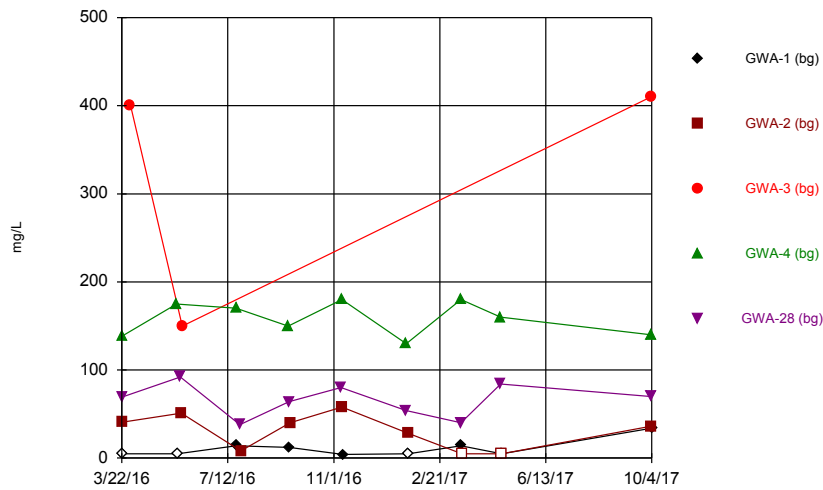
Constituent: Sulfate Analysis Run 1/26/2018 4:15 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



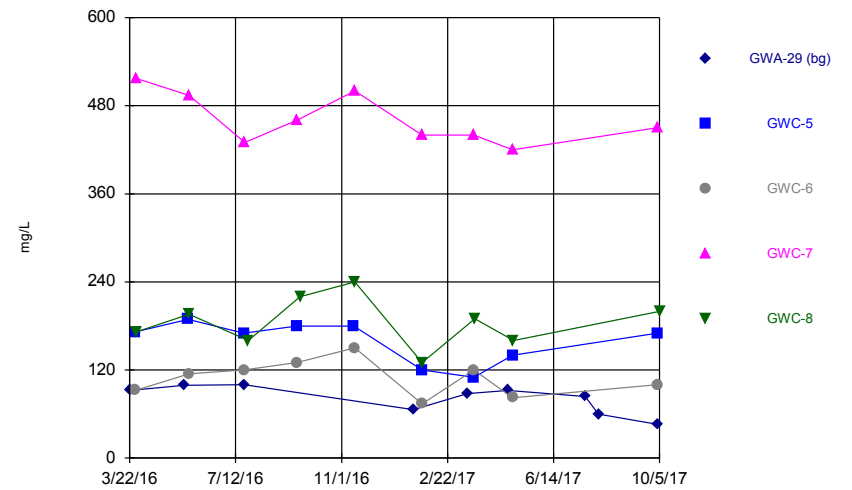
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



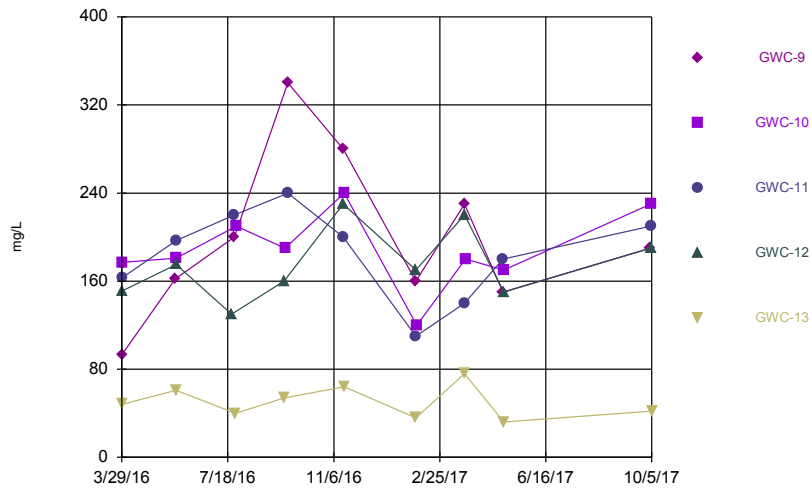
Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:15 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Time Series



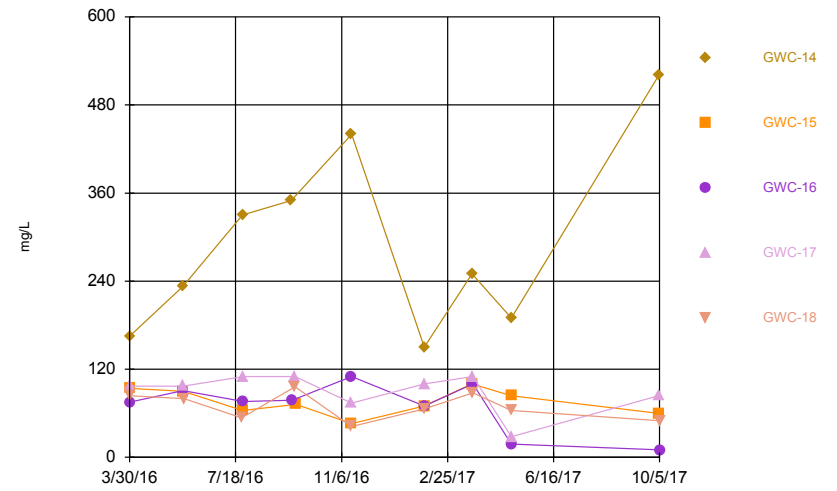
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



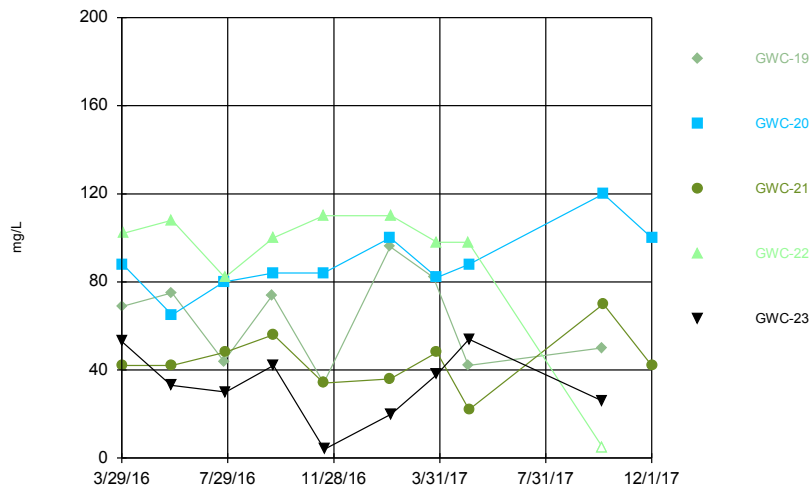
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



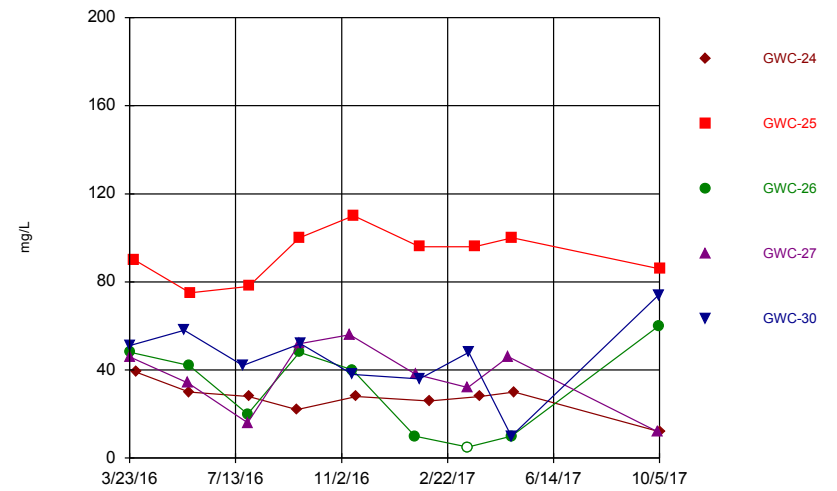
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



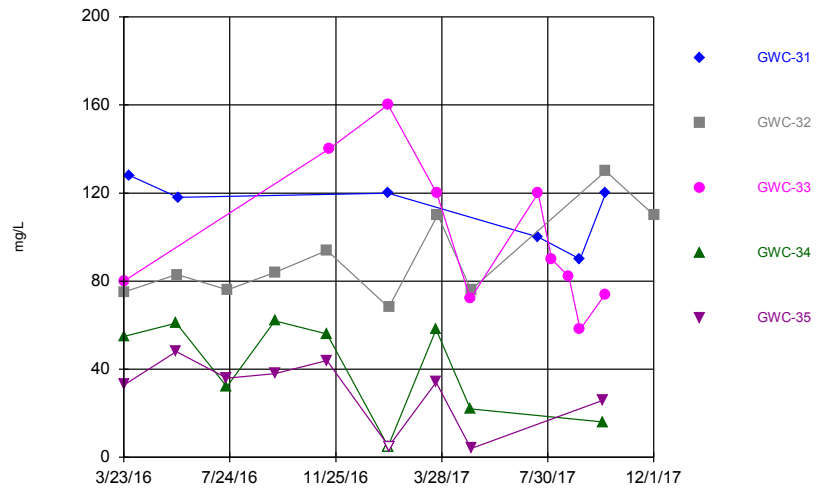
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Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:15 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

### Time Series



Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:15 PM View: 1. Time Series - All Wells  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126 Printed 1/26/2018, 4:22 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-5	0.05	n/a	10/3/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-6	0.05	n/a	10/3/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-7	0.05	n/a	10/3/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-8	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GWC-9</b>	<b>0.05</b>	<b>n/a</b>	<b>12/1/2017</b>	<b>0.1</b>	<b>Yes</b>	<b>49</b>	<b>97.96</b>	<b>n/a</b>	<b>0.000...</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GWC-10	0.05	n/a	10/4/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-11	0.05	n/a	10/4/2017	0.022	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-12	0.05	n/a	10/4/2017	0.022	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-13	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GWC-14</b>	<b>0.05</b>	<b>n/a</b>	<b>12/1/2017</b>	<b>1.2</b>	<b>Yes</b>	<b>49</b>	<b>97.96</b>	<b>n/a</b>	<b>0.000...</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GWC-15	0.05	n/a	10/4/2017	0.044	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-16	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-17	0.05	n/a	10/4/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-18	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-19	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-20	0.05	n/a	10/6/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-21	0.05	n/a	10/6/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-22	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-23	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-24	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-25	0.05	n/a	10/5/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-26	0.05	n/a	10/4/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-27	0.05	n/a	10/3/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-30	0.05	n/a	10/4/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-31	0.05	n/a	10/6/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-32	0.05	n/a	10/6/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-33	0.05	n/a	10/5/2017	0.025	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-34	0.05	n/a	10/3/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	GWC-35	0.05	n/a	10/3/2017	0.05ND	No	49	97.96	n/a	0.000...	NP Inter (NDs) 1 of 2
Chloride (mg/L)	GWC-5	23	n/a	10/3/2017	12	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-6	23	n/a	10/3/2017	5.4	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-7	23	n/a	10/3/2017	23	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-8	23	n/a	10/5/2017	6.4	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-9	23	n/a	10/3/2017	10	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-10	23	n/a	10/4/2017	3.9	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-11	23	n/a	10/4/2017	3.5	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-12	23	n/a	10/4/2017	18	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-13	23	n/a	10/5/2017	1.1	No	48	0	n/a	0.000...	NP Inter (normality) ...
<b>Chloride (mg/L)</b>	<b>GWC-14</b>	<b>23</b>	<b>n/a</b>	<b>12/1/2017</b>	<b>150</b>	<b>Yes</b>	<b>48</b>	<b>0</b>	<b>n/a</b>	<b>0.000...</b>	<b>NP Inter (normality) ...</b>
Chloride (mg/L)	GWC-15	23	n/a	10/4/2017	4.2	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-16	23	n/a	10/5/2017	1.3	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-17	23	n/a	10/4/2017	1.1	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-18	23	n/a	10/5/2017	1.5	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-19	23	n/a	10/5/2017	1.6	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-20	23	n/a	10/6/2017	1.8	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-21	23	n/a	10/6/2017	3.2	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-22	23	n/a	10/5/2017	1.5	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-23	23	n/a	10/5/2017	1.8	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-24	23	n/a	10/5/2017	3.3	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-25	23	n/a	10/5/2017	3.5	No	48	0	n/a	0.000...	NP Inter (normality) ...



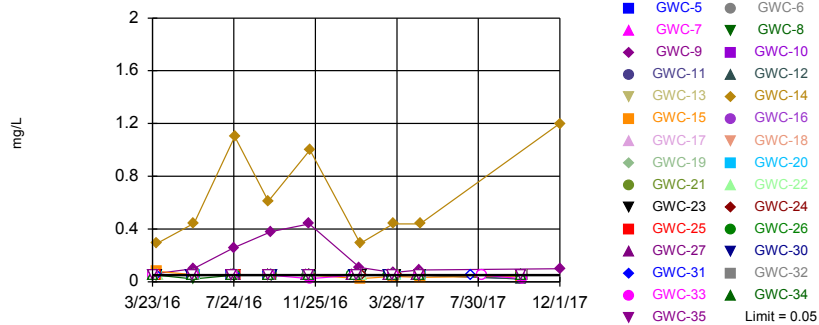
## Prediction Limit

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126 Printed 1/26/2018, 4:22 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	GWC-26	23	n/a	10/4/2017	2.8	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-27	23	n/a	10/3/2017	0.96	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-30	23	n/a	10/4/2017	1.2	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-31	23	n/a	10/6/2017	1.7	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-32	23	n/a	10/6/2017	1.1	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-33	23	n/a	10/5/2017	2.1	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-34	23	n/a	10/3/2017	1.1	No	48	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	GWC-35	23	n/a	10/3/2017	3.8	No	48	0	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-5	3.2	n/a	10/3/2017	0.089	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-6	3.2	n/a	10/3/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-7	3.2	n/a	10/3/2017	0.23	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-8	3.2	n/a	10/5/2017	0.085	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-9	3.2	n/a	10/3/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-10	3.2	n/a	10/4/2017	1.2	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-11	3.2	n/a	10/4/2017	0.16	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-12	3.2	n/a	10/4/2017	0.2	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-13	3.2	n/a	10/5/2017	0.1	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-14	3.2	n/a	10/4/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-15	3.2	n/a	10/4/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-16	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-17	3.2	n/a	10/4/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-18	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-19	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-20	3.2	n/a	10/6/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-21	3.2	n/a	10/6/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-22	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-23	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-24	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-25	3.2	n/a	10/5/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-26	3.2	n/a	10/4/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-27	3.2	n/a	10/3/2017	0.18	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-30	3.2	n/a	10/4/2017	0.091	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-31	3.2	n/a	10/6/2017	1.6	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
<b>Fluoride (mg/L)</b>	<b>GWC-32</b>	<b>3.2</b>	<b>n/a</b>	<b>12/1/2017</b>	<b>3.4</b>	<b>Yes</b>	<b>48</b>	<b>45.83</b>	<b>n/a</b>	<b>0.000...</b>	<b>NP Inter (normality) ...</b>
Fluoride (mg/L)	GWC-33	3.2	n/a	11/30/2017	2.8	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-34	3.2	n/a	10/3/2017	0.17	No	48	45.83	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	GWC-35	3.2	n/a	10/3/2017	0.2ND	No	48	45.83	n/a	0.000...	NP Inter (normality) ...

Exceeds Limit: GWC-9, GWC-14

Prediction Limit  
Interwell Non-parametric

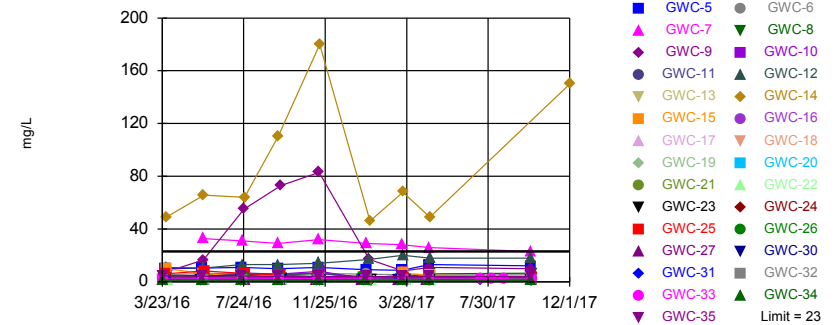


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 49 background values. 97.96% NDs. Annual per-constituent alpha = 0.04111. Individual comparison alpha = 0.0007236 (1 of 2). Comparing 29 points to limit.

Constituent: Boron Analysis Run 1/26/2018 4:20 PM View: 2A. Interwell UPL - B,Cl,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Exceeds Limit: GWC-14

Prediction Limit  
Interwell Non-parametric

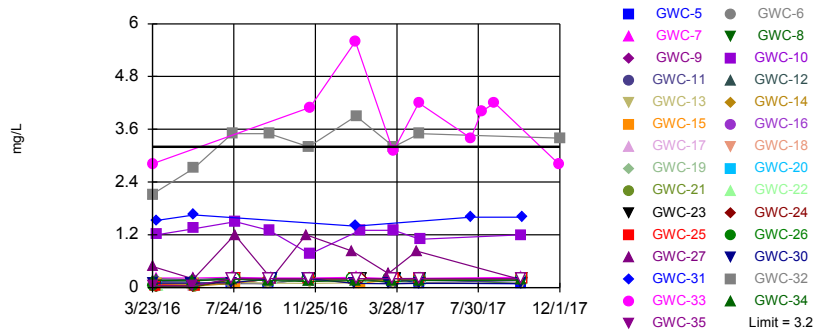


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 48 background values. Annual per-constituent alpha = 0.04295. Individual comparison alpha = 0.0007566 (1 of 2). Comparing 29 points to limit.

Constituent: Chloride Analysis Run 1/26/2018 4:21 PM View: 2A. Interwell UPL - B,Cl,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Exceeds Limit: GWC-32

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 48 background values. 45.83% NDs. Annual per-constituent alpha = 0.04295. Individual comparison alpha = 0.0007566 (1 of 2). Comparing 29 points to limit.

Constituent: Fluoride Analysis Run 1/26/2018 4:21 PM View: 2A. Interwell UPL - B,Cl,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,CI,FI

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWA-28 (bg)	GWA-29 (bg)	GWC-33	GWA-2 (bg)	GWC-27	GWA-1 (bg)	GWC-30	GWC-32	GWA-4 (bg)
3/22/2016	<0.05	<0.05							
3/23/2016			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016		<0.05							<0.05
5/20/2016						<0.05	<0.05		
5/23/2016	<0.05								
5/24/2016			<0.05	<0.05	<0.05			<0.05	
5/25/2016									
5/26/2016									
7/21/2016		<0.05				<0.05	<0.05		<0.05
7/22/2016			<0.05					<0.05	
7/25/2016	<0.05								
7/26/2016				<0.05	<0.05				
7/27/2016									
9/14/2016									<0.05
9/15/2016	<0.05					<0.05			
9/16/2016			<0.05	<0.05				<0.05	
9/19/2016					<0.05				
9/20/2016							<0.05		
11/9/2016	<0.05								
11/10/2016				<0.05					<0.05
11/11/2016					<0.05	<0.05			
11/14/2016							<0.05		
11/15/2016								<0.05	
11/16/2016									
11/17/2016			0.023 (J)						
11/18/2016									
1/17/2017	<0.05	<0.05							<0.05
1/19/2017				<0.05		<0.05			
1/20/2017					<0.05				
1/24/2017							<0.05		
1/25/2017			<0.05						
1/26/2017								<0.05	
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/15/2017		<0.05							
3/16/2017	<0.05				<0.05	<0.05			<0.05
3/17/2017				<0.05			<0.05		
3/22/2017									
3/23/2017			<0.05						
3/24/2017								<0.05	
3/28/2017									
3/29/2017									
4/27/2017	<0.05	<0.05							<0.05
4/28/2017				<0.05	<0.05	<0.05			
5/1/2017			<0.05				<0.05		



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,CI,FI  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWC-26	GWC-34	GWC-35	GWC-25	GWC-6	GWC-5	GWC-9	GWC-12	GWC-13
3/22/2016									
3/23/2016									
3/24/2016	<0.05	<0.05	<0.05						
3/28/2016				<0.05	<0.05	<0.05			
3/29/2016							0.0635 (J)	<0.05	<0.05
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016		<0.05	<0.05			<0.05			
5/24/2016					<0.05		0.0981 (J)		
5/25/2016	<0.05			<0.05				<0.05	<0.05
5/26/2016									
7/21/2016		<0.05	<0.05		<0.05	<0.05			
7/22/2016								<0.05	
7/25/2016							0.26		
7/26/2016	<0.05								<0.05
7/27/2016				<0.05					
9/14/2016									
9/15/2016		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05
9/16/2016									
9/19/2016	<0.05			<0.05			0.38		
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016	<0.05								
11/15/2016		<0.05	<0.05	<0.05		<0.05			
11/16/2016					<0.05		0.44	<0.05	
11/17/2016									<0.05
11/18/2016									
1/17/2017									
1/19/2017	<0.05								
1/20/2017									
1/24/2017				<0.05					
1/25/2017		<0.05							
1/26/2017			<0.05		<0.05	<0.05			
1/31/2017							0.11	<0.05	<0.05
2/1/2017									
2/2/2017									
2/3/2017									
3/15/2017									
3/16/2017	<0.05								
3/17/2017									
3/22/2017		<0.05	<0.05		<0.05	<0.05			
3/23/2017				<0.05			0.071	<0.05	<0.05
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	<0.05	<0.05							

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,CI,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-26	GWC-34	GWC-35	GWC-25	GWC-6	GWC-5	GWC-9	GWC-12	GWC-13
5/2/2017			<0.05	<0.05	<0.05	<0.05	0.089		
5/3/2017								<0.05	<0.05
5/4/2017									
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
10/3/2017		<0.05	<0.05		<0.05	<0.05			
10/4/2017	<0.05							0.022 (J)	
10/5/2017				<0.05					<0.05
10/6/2017									
12/1/2017							0.1 (R)		









# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,CI,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-19	GWC-15	GWC-14	GWC-16	GWC-10	GWC-17	GWC-22	GWA-3 (bg)
5/2/2017								
5/3/2017	<0.05	0.034 (J)	0.44	<0.05	<0.05	<0.05	<0.05	
5/4/2017								
7/18/2017								
7/19/2017								
8/1/2017								<0.05
8/4/2017								
10/3/2017								<0.05
10/4/2017		0.044 (J)			<0.05	<0.05		
10/5/2017	<0.05			<0.05			<0.05	
10/6/2017								
12/1/2017			1.2 (R)					

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,C,I,FI

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWA-28 (bg)	GWA-29 (bg)	GWA-4 (bg)	GWC-27	GWA-2 (bg)	GWC-30	GWA-1 (bg)	GWC-33	GWC-32
3/22/2016	1.3716	1.5096							
3/23/2016			9.041	1.0825	2.5102	1.3598	1.8057	2.2604	1.0533
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016		1.51	13.1						
5/20/2016						1.4	1.84		
5/23/2016	1.33								
5/24/2016				1.08	4.52				1.1
5/25/2016									
5/26/2016									
7/21/2016		1.6	17			1.4	1.9		
7/22/2016									1.1
7/25/2016	1.4								
7/26/2016				1.1	4				
7/27/2016									
9/14/2016			17						
9/15/2016	1.3						1.8		
9/16/2016					4.1				1.1
9/19/2016				1					
9/20/2016						1.3			
11/9/2016	1.4								
11/10/2016			23		4.6				
11/11/2016				0.97 (J)			1.8		
11/14/2016						1.3			
11/15/2016									1.1
11/16/2016									
11/17/2016								2.5	
11/18/2016									
1/17/2017	1.3	1.3	14						
1/19/2017					5.6		1.8		
1/20/2017				0.99 (J)					
1/24/2017						1.3			
1/25/2017								2.1	
1/26/2017									1.1
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/15/2017		1.3							
3/16/2017	1.2		16	1			1.7		
3/17/2017					4.4	1.3			
3/22/2017									
3/23/2017								2	
3/24/2017									1.1
3/28/2017									
3/29/2017									
4/27/2017	1.2	1.4	15						
4/28/2017				0.96 (J)	4.7		1.7		
5/1/2017						1.3		2.1	



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,C,I,FI  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWC-26	GWC-34	GWC-35	GWC-25	GWC-6	GWC-5	GWC-9	GWC-12	GWC-8
3/22/2016									
3/23/2016									
3/24/2016	2.8217	1.2259	4.4998						
3/28/2016				5.992	5.312	9.818			
3/29/2016							7.395	10.931	3.5914
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016		1.19	4.19			10.4			
5/24/2016					6.21		16.4		3.16
5/25/2016	2.93							10.5	
5/26/2016				8.14					
7/21/2016		1.3	4.4		6.6	11			
7/22/2016								13	
7/25/2016							55		
7/26/2016	3								5.9
7/27/2016				6.3					
9/14/2016									
9/15/2016		1.2	4		6.1	10		13	
9/16/2016									
9/19/2016	2.9			5.1			73		5.4
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016	2.8								
11/15/2016		1.2	4.2	3.9		11			
11/16/2016					6.2		83	14	6.2
11/17/2016									
11/18/2016									
1/17/2017									
1/19/2017	2.8								
1/20/2017									
1/24/2017				3.6					
1/25/2017		1.2							
1/26/2017			4.2		5.8	9.2			3.6
1/31/2017							17	17	
2/1/2017									
2/2/2017									
2/3/2017									
3/15/2017									
3/16/2017	2.7								
3/17/2017									
3/22/2017		1.1	3.9		5.2	8.7			
3/23/2017				3.2			8.2	20	3.9
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	2.8	1.1							





# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,C,I,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWC-13	GWC-23	GWC-11	GWC-14	GWC-18	GWC-21	GWC-20	GWC-19	GWC-24
5/2/2017			3.3						
5/3/2017	1.1			49	1.6			1.8	
5/4/2017		1.8				3.4	1.9		3.2
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
8/24/2017									
9/6/2017									
10/3/2017									
10/4/2017			3.5						
10/5/2017	1.1	1.8			1.5			1.6	3.3
10/6/2017						3.2	1.8		
12/1/2017				150 (R)					







# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,C,I,FI  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-32	GWC-33	GWA-4 (bg)	GWC-27	GWC-30	GWA-1 (bg)
3/22/2016	2.2163	1.4375							
3/23/2016			0.0276 (J)	2.1209	2.8158	0.0713 (J)	0.4759	0.0999 (J)	0.019 (J)
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016	2.35					0.078 (J)			
5/20/2016								0.104 (J)	0.02 (J)
5/23/2016		1.62							
5/24/2016			0.023 (J)	2.71			0.198 (J)		
5/25/2016									
5/26/2016									
7/21/2016	3.2					<0.2		0.11 (J)	<0.2
7/22/2016				3.5					
7/25/2016		1.7							
7/26/2016			<0.2				1.2		
7/27/2016									
9/14/2016						<0.2			
9/15/2016		1.6							<0.2
9/16/2016			<0.2	3.5					
9/19/2016							<0.2 (*)		
9/20/2016								<0.2 (*)	
11/9/2016		1.7							
11/10/2016			<0.2			<0.2			
11/11/2016							1.2		<0.2
11/14/2016								<0.2	
11/15/2016				3.2					
11/16/2016									
11/17/2016					4.1				
11/18/2016									
1/17/2017	2.6	1.6				<0.2			
1/19/2017			<0.2						<0.2
1/20/2017							0.83		
1/24/2017								0.094 (J)	
1/25/2017					5.6				
1/26/2017				3.9					
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/15/2017	1.9								
3/16/2017		1.7				<0.2	0.32		<0.2
3/17/2017			<0.2					0.084 (J)	
3/22/2017									
3/23/2017					3.1				
3/24/2017				3.2					
3/28/2017									
3/29/2017									
4/27/2017	2.5	1.4				<0.2			
4/28/2017			<0.2				0.83		<0.2
5/1/2017					4.2			0.092 (J)	

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,C,I,FI  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-32	GWC-33	GWA-4 (bg)	GWC-27	GWC-30	GWA-1 (bg)
5/2/2017				3.5					
5/3/2017									
5/4/2017									
7/18/2017	2.2								
7/19/2017					3.4				
8/1/2017	2.5								
8/4/2017					4				
8/24/2017					4.2				
9/6/2017					<20 (o)				
10/3/2017	2.3	1.7	<0.2			<0.2	0.18 (J)		
10/4/2017								0.091 (J)	<0.2
10/5/2017									
10/6/2017									
11/30/2017					2.8 (R)				
12/1/2017				3.4 (R)					

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/26/2018 4:22 PM View: 2A. Interwell UPL - B,C,I,FI  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWC-34	GWC-26	GWC-35	GWC-25	GWC-6	GWC-5	GWC-12	GWC-23	GWC-11
3/22/2016									
3/23/2016									
3/24/2016	0.1653 (J)	0.0318 (J)	0.0396 (J)						
3/28/2016				0.0542 (J)	0.0752 (J)	0.1116 (J)			
3/29/2016							0.1936 (J)	0.0308 (J)	0.1377 (J)
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016	0.155 (J)		0.0343 (J)			0.1022 (J)			
5/24/2016					0.081 (J)				
5/25/2016		0.0282 (J)					0.1797 (J)	0.0285 (J)	0.1521 (J)
5/26/2016				0.034 (J)					
7/21/2016	0.19 (J)		<0.2		0.088 (J)	0.11 (J)			
7/22/2016							0.22		
7/25/2016									0.21
7/26/2016		<0.2							
7/27/2016				<0.2				<0.2	
9/14/2016									
9/15/2016	0.16 (J)		<0.2		0.084 (J)	0.084 (J)	0.18 (J)		
9/16/2016									
9/19/2016		<0.2		<0.2					<0.2 (*)
9/20/2016								<0.2	
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016		<0.2							
11/15/2016	0.14 (J)		<0.2	<0.2		<0.2			
11/16/2016					<0.2		0.16 (J)		0.14 (J)
11/17/2016									
11/18/2016								<0.2	
1/17/2017									
1/19/2017		<0.2							
1/20/2017									
1/24/2017				<0.2					
1/25/2017	0.16 (J)								
1/26/2017			<0.2		<0.2	<0.2			
1/31/2017							0.19 (J)		<0.2
2/1/2017									
2/2/2017									
2/3/2017								<0.2	
3/15/2017									
3/16/2017		<0.2							
3/17/2017									
3/22/2017	0.14 (J)		<0.2		<0.2	<0.2			
3/23/2017				<0.2			0.17 (J)		0.097 (J)
3/24/2017									
3/28/2017								<0.2	
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	0.16 (J)	<0.2							













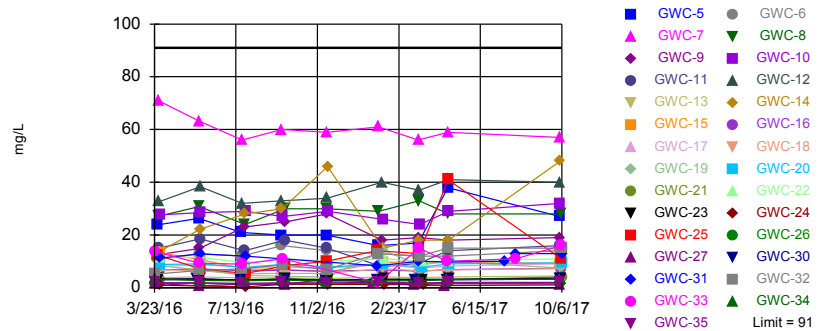
# Prediction Limit

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126 Printed 1/26/2018, 4:28 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>
Calcium (mg/L)	GWC-5	91	n/a	10/3/2017	27	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-6	91	n/a	10/3/2017	14	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-7	91	n/a	10/3/2017	57	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-8	91	n/a	10/5/2017	28	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-9	91	n/a	10/3/2017	19	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-10	91	n/a	10/4/2017	32	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-11	91	n/a	10/4/2017	16	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-12	91	n/a	10/4/2017	40	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-13	91	n/a	10/5/2017	4.5	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-14	91	n/a	10/4/2017	48	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-15	91	n/a	10/4/2017	9.3	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-16	91	n/a	10/5/2017	7.4	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-17	91	n/a	10/4/2017	9.1	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-18	91	n/a	10/5/2017	7.3	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-19	91	n/a	10/5/2017	7.5	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-20	91	n/a	10/6/2017	9.4	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-21	91	n/a	10/6/2017	4.1	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-22	91	n/a	10/5/2017	11	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-23	91	n/a	10/5/2017	3.6	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-24	91	n/a	10/5/2017	1.4	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-25	91	n/a	10/5/2017	11	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-26	91	n/a	10/4/2017	1.8	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-27	91	n/a	10/3/2017	1.1	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-30	91	n/a	10/4/2017	3.3	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-31	91	n/a	10/6/2017	13	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-32	91	n/a	10/6/2017	15	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-33	91	n/a	10/5/2017	16	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-34	91	n/a	10/3/2017	3.2	No	49	2.041	n/a	0.000...	NP Inter (normality) ...
Calcium (mg/L)	GWC-35	91	n/a	10/3/2017	2.1	No	49	2.041	n/a	0.000...	NP Inter (normality) ...

Within Limit

### Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 49 background values. 2.041% NDs. Annual per-constituent alpha = 0.04111. Individual comparison alpha = 0.0007236 (1 of 2). Comparing 29 points to limit.

Constituent: Calcium Analysis Run 1/26/2018 4:27 PM View: 2B. Interwell UPL - Ca  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/26/2018 4:28 PM View: 2B. Interwell UPL - Ca  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWA-28 (bg)	GWA-29 (bg)	GWC-32	GWA-2 (bg)	GWA-4 (bg)	GWC-33	GWC-27	GWC-30	GWA-1 (bg)
3/22/2016	2.86	4.65							
3/23/2016			5.18	3.09	24.2	13.8	1.73	3.03	0.893
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016		5.08			33.6				
5/20/2016								3.37	0.784
5/23/2016	2.81								
5/24/2016			6.58	3.51		9.38	0.745		
5/25/2016									
5/26/2016									
7/21/2016		4.7			30			2.9	0.6
7/22/2016			7.1			9			
7/25/2016	2.4								
7/26/2016				3.1			1.4		
7/27/2016									
9/14/2016					31				
9/15/2016	2.5								0.7
9/16/2016			8.7	3.6		11			
9/19/2016							1.2		
9/20/2016								3.2	
11/9/2016	2.6								
11/10/2016				3.7	27				
11/11/2016							3.3		0.59
11/14/2016								2.8	
11/15/2016			6.9						
11/16/2016									
11/17/2016						55 (O)			
11/18/2016									
1/17/2017	2.4	3.7			26				
1/19/2017				4.2					0.59
1/20/2017							2.2		
1/24/2017								3.1	
1/25/2017						<3.9			
1/26/2017			13						
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/15/2017		3.8							
3/16/2017	2.7				27		1		0.72
3/17/2017				3.4				2.9	
3/22/2017									
3/23/2017						15			
3/24/2017			12						
3/28/2017									
3/29/2017									
4/27/2017	2.4	3.9			27				
4/28/2017				3.9			0.88		0.72
5/1/2017						10		3	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/26/2018 4:28 PM View: 2B. Interwell UPL - Ca  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-28 (bg)	GWA-29 (bg)	GWC-32	GWA-2 (bg)	GWA-4 (bg)	GWC-33	GWC-27	GWC-30	GWA-1 (bg)
5/2/2017			15						
5/3/2017									
5/4/2017									
7/18/2017		<3.9 (*)							
7/19/2017									
8/1/2017		3.8							
8/4/2017						11			
10/3/2017	2.7	4.1		4.2	30		1.1		
10/4/2017								3.3	0.73
10/5/2017						16			
10/6/2017			15						

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/26/2018 4:28 PM View: 2B. Interwell UPL - Ca  
 Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

	GWC-26	GWC-35	GWC-34	GWC-25	GWC-6	GWC-5	GWC-23	GWC-13	GWC-12
3/22/2016									
3/23/2016									
3/24/2016	1.72	1.97	3.27						
3/28/2016				12.3	10.8	23.9			
3/29/2016							3.32	3.91	32.6
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016		1.97	2.82			26.3			
5/24/2016					13				
5/25/2016	1.68			7.2			3.4	4.06	38.3
5/26/2016									
7/21/2016		1.7	2.6		12	21			
7/22/2016									32
7/25/2016									
7/26/2016	1.4							3.7	
7/27/2016				5.4			2.9		
9/14/2016									
9/15/2016		1.9	2.9		16	20		3.7	33
9/16/2016									
9/19/2016	1.5			8.4					
9/20/2016							3.3		
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016	1.8								
11/15/2016		1.8	2.5	10		20			
11/16/2016					14				34
11/17/2016								3.5	
11/18/2016							2.9		
1/17/2017									
1/19/2017	1.6								
1/20/2017									
1/24/2017				14					
1/25/2017			2.7						
1/26/2017		2.2			13	16			
1/31/2017								4.1	40
2/1/2017									
2/2/2017									
2/3/2017							3.3		
3/15/2017									
3/16/2017	1.7								
3/17/2017									
3/22/2017		1.8	2.7		12	17			
3/23/2017				13				3.9	37
3/24/2017									
3/28/2017							3.1		
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	1.6		3.1						











# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/26/2018 4:28 PM View: 2B. Interwell UPL - Ca  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-19	GWC-15	GWC-31	GWC-14	GWC-24	GWC-10	GWA-3 (bg)	GWC-22
5/2/2017			9.8					
5/3/2017	9.9	9.4		18		29		10
5/4/2017					1.6			
7/18/2017								
7/19/2017			10					
8/1/2017							72	
8/4/2017			13					
10/3/2017							91	
10/4/2017		9.3		48		32		
10/5/2017	7.5				1.4			11
10/6/2017			13					

# Prediction Limit

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126 Printed 1/26/2018, 4:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (SU)	GWA-1	5.893	5.037	10/4/2017	5.44	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-2	5.995	5.495	10/3/2017	5.53	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-4	7.367	5.5	10/3/2017	6.06	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-28	6.81	5.518	10/3/2017	6.13	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-29	6.102	5.735	10/3/2017	6.01	No	7	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-5	7.365	5.612	10/3/2017	6.2	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-6	6.574	5.534	10/3/2017	5.9	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-7	6.508	6.262	10/3/2017	6.34	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-8	6.573	5.707	10/5/2017	5.76	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-9	6.192	5.528	10/3/2017	5.84	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-10	6.985	5.647	10/3/2017	6.47	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-11	6.741	5.602	10/4/2017	6.02	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-12	7.846	6.924	10/4/2017	7.58	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-13	7.569	6.129	10/5/2017	6.81	No	8	0	sqrt(x)	0.000...	Param Intra 1 of 3
pH (SU)	GWC-14	6.513	4.579	10/4/2017	5.11	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-15	6.795	6.355	10/4/2017	6.67	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-16	6.439	5.781	10/5/2017	6.19	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-17	6.456	5.987	10/4/2017	6.18	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-18	6.429	5.638	10/5/2017	5.87	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-19	6.228	5.717	10/5/2017	5.79	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-20	6.587	5.938	10/6/2017	6.2	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-21	5.994	5.216	10/6/2017	5.47	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-22	6.929	6.281	10/5/2017	6.4	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-23	7.053	4.749	10/5/2017	5.95	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-24	9.326	3.592	10/4/2017	5.54	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-25	7.477	4.705	10/5/2017	6.36	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-26	6.099	5.366	10/4/2017	5.75	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-27	6.102	5.178	10/3/2017	5.67	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-30	6.78	5.93	10/4/2017	6.58	No	8	0	n/a	0.01182	NP Intra (normality) ...
pH (SU)	GWC-31	7.379	5.066	10/5/2017	5.97	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-32	6.418	5.956	10/5/2017	6.18	No	7	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-33	8.104	5.123	10/4/2017	6.36	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-34	6.75	5.265	10/3/2017	5.91	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-35	6.395	5.065	10/3/2017	5.62	No	8	0	x^(1/3)	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-2	2.203	n/a	10/3/2017	1.9	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-4	15.67	n/a	10/3/2017	9.8	No	8	0	x^(1/3)	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-29	14.17	n/a	10/3/2017	7	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-5	28.34	n/a	10/3/2017	21	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-6	19.45	n/a	10/3/2017	11	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-7	94.67	n/a	10/3/2017	74	No	7	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-8	56.37	n/a	10/5/2017	16	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-9	47.94	n/a	10/3/2017	17	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-10	50.16	n/a	10/4/2017	45	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-11	3.7	n/a	10/4/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-12	25.02	n/a	10/4/2017	22	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-13	3.055	n/a	10/5/2017	2.5	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-14	42.84	n/a	10/4/2017	22	No	8	0	sqrt(x)	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-15	2.38	n/a	10/4/2017	1.4	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-16	1	n/a	10/5/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-17	0.896	n/a	10/4/2017	1ND	No	8	50	No	0.000...	Param Intra 1 of 3

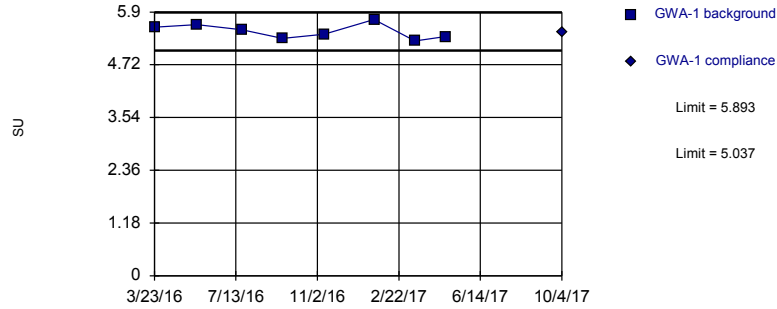
## Prediction Limit

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126 Printed 1/26/2018, 4:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	GWC-18	1	n/a	10/5/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-19	10.09	n/a	10/5/2017	0.81	No	8	37.5	x^(1/3)	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-20	1.255	n/a	10/6/2017	0.79	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-21	1	n/a	10/6/2017	1ND	No	8	87.5	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-22	1	n/a	10/5/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-23	1	n/a	10/5/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-24	1.019	n/a	10/5/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-25	39.16	n/a	10/5/2017	16	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-26	1	n/a	10/4/2017	1ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-27	4.138	n/a	10/3/2017	1ND	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-30	1.49	n/a	10/4/2017	1.2	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-31	22.14	n/a	10/6/2017	19	No	4	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-32	16.24	n/a	10/6/2017	8.8	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-33	53.9	n/a	10/5/2017	18	No	8	0	x^(1/3)	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-34	1.975	n/a	10/3/2017	1.4	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-35	3.086	n/a	10/3/2017	2.5	No	8	0	No	0.000...	Param Intra 1 of 3
<b>Total Dissolved Solids (mg/L)</b>	<b>GWA-1</b>	<b>26.76</b>	<b>n/a</b>	<b>10/4/2017</b>	<b>34</b>	<b>Yes</b>	<b>8</b>	<b>50</b>	<b>ln(x)</b>	<b>0.000...</b>	<b>Param Intra 1 of 3</b>
Total Dissolved Solids (mg/L)	GWA-2	80.95	n/a	10/3/2017	36	No	8	25	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-4	209.9	n/a	10/3/2017	140	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-28	116.8	n/a	10/3/2017	70	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-29	123.1	n/a	10/3/2017	46	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-5	235.3	n/a	10/3/2017	170	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-6	176.7	n/a	10/3/2017	100	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-7	556.4	n/a	10/3/2017	450	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-8	275.1	n/a	10/5/2017	200	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-9	406.1	n/a	10/3/2017	190	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-10	271.9	n/a	10/4/2017	230	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-11	291	n/a	10/4/2017	210	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-12	263.2	n/a	10/4/2017	190	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-13	90.6	n/a	10/5/2017	42	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-14	525.4	n/a	10/4/2017	520	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-15	123.6	n/a	10/4/2017	60	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-16	148.6	n/a	10/5/2017	10	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-17	138.4	n/a	10/4/2017	84	No	8	0	x^2	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-18	119.2	n/a	10/5/2017	50	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-19	121.2	n/a	10/5/2017	50	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-20	109.1	n/a	12/1/2017	100	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-21	67.88	n/a	12/1/2017	42	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-22	124.7	n/a	10/5/2017	5ND	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-23	77.35	n/a	10/5/2017	26	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-24	41.32	n/a	10/5/2017	12	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-25	123.4	n/a	10/5/2017	86	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-27	73.1	n/a	10/3/2017	12	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-30	80.25	n/a	10/4/2017	74	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-31	151.6	n/a	10/6/2017	120	No	5	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-32	117.6	n/a	12/1/2017	110	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-33	190.5	n/a	10/5/2017	74	No	9	0	No	0.000...	Param Intra 1 of 3

Within Limits

### Prediction Limit Intrawell Parametric

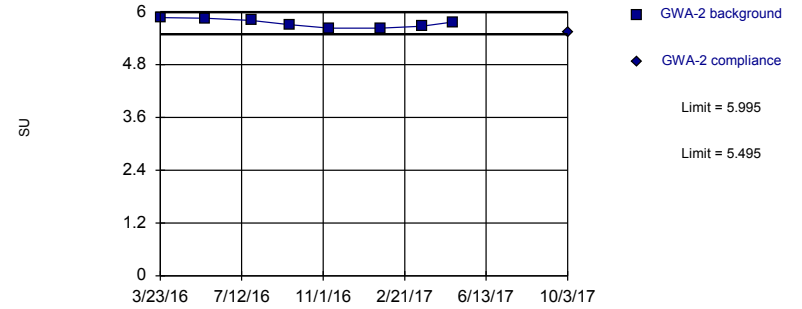


Background Data Summary: Mean=5.465, Std. Dev.=0.1657, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9656, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

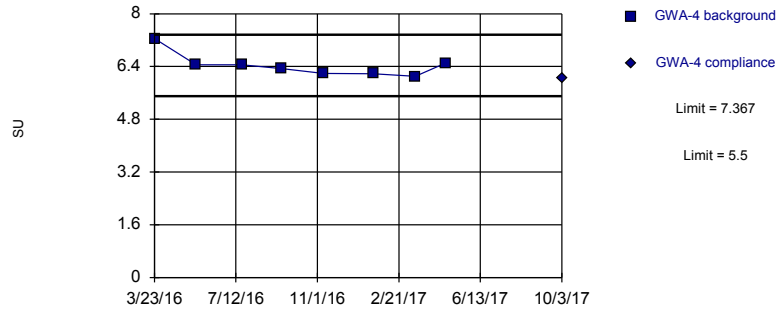


Background Data Summary: Mean=5.745, Std. Dev.=0.09681, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9079, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

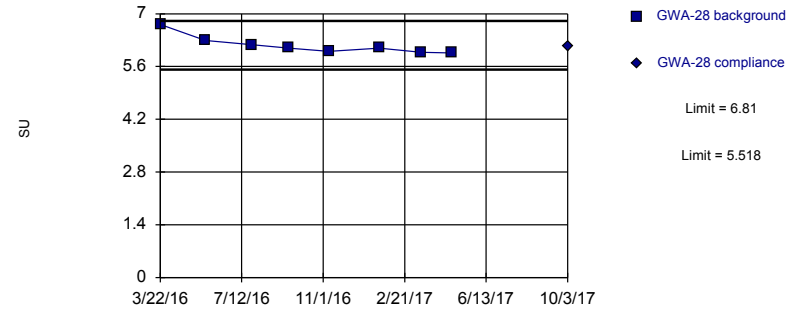


Background Data Summary: Mean=6.434, Std. Dev.=0.3619, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7917, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.164, Std. Dev.=0.2503, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7921, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-1	GWA-1
3/23/2016	5.56	
5/20/2016	5.62	
7/21/2016	5.5	
9/15/2016	5.31	
11/11/2016	5.4	
1/19/2017	5.73	
3/16/2017	5.25	
4/28/2017	5.35	
10/4/2017		5.44



# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-2	GWA-2
3/23/2016	5.87	
5/24/2016	5.86	
7/26/2016	5.81	
9/16/2016	5.71	
11/10/2016	5.63	
1/19/2017	5.63	
3/17/2017	5.68	
4/28/2017	5.77	
10/3/2017		5.53

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-4	GWA-4
3/23/2016	7.25	
5/19/2016	6.45	
7/21/2016	6.45	
9/14/2016	6.34	
11/10/2016	6.19	
1/17/2017	6.18	
3/16/2017	6.1	
4/27/2017	6.51	
10/3/2017		6.06

# Prediction Limit

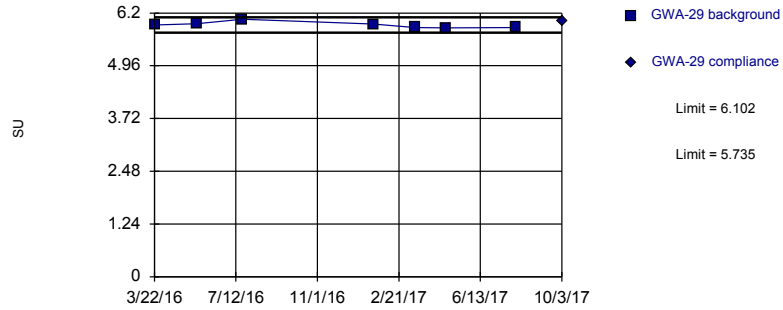
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-28	GWA-28
3/22/2016	6.72	
5/23/2016	6.29	
7/25/2016	6.18	
9/15/2016	6.09	
11/9/2016	6	
1/17/2017	6.09	
3/16/2017	5.98	
4/27/2017	5.96	
10/3/2017		6.13

Within Limits

### Prediction Limit Intrawell Parametric

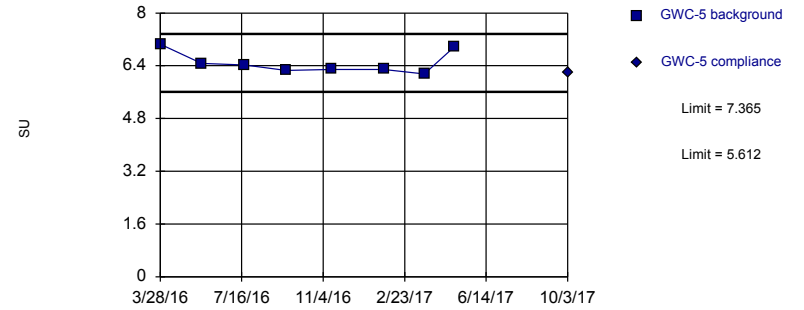


Background Data Summary: Mean=5.919, Std. Dev.=0.07105, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8789, critical = 0.73. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

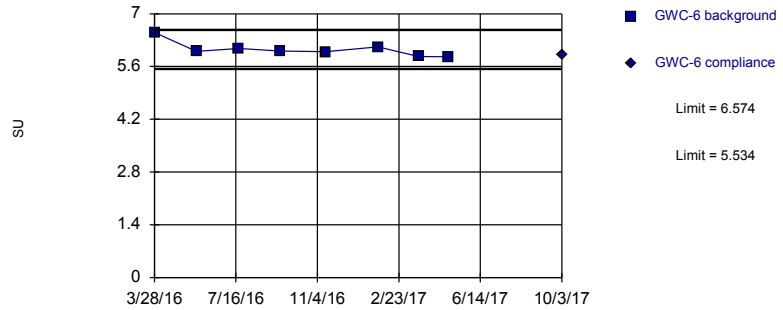


Background Data Summary: Mean=6.489, Std. Dev.=0.3396, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8148, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

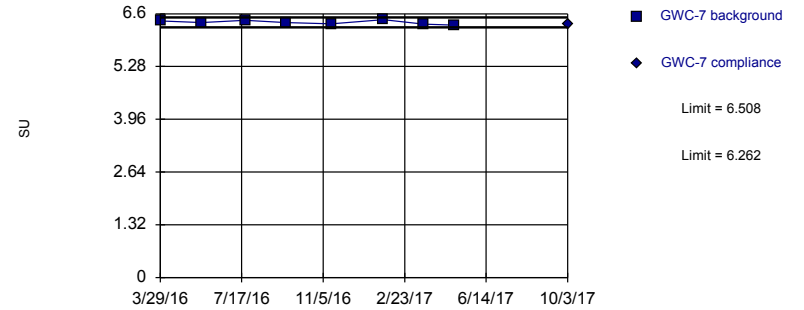


Background Data Summary: Mean=6.054, Std. Dev.=0.2016, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8192, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.385, Std. Dev.=0.04781, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9382, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-29	GWA-29
3/22/2016	5.92	
5/19/2016	5.95	
7/21/2016	6.05	
1/17/2017	5.94	
3/15/2017	5.86	
4/27/2017	5.85	
8/1/2017	5.86 (D)	
10/3/2017		6.01

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-5	GWC-5
3/28/2016	7.05	
5/23/2016	6.47	
7/21/2016	6.42	
9/15/2016	6.26	
11/15/2016	6.29	
1/26/2017	6.29	
3/22/2017	6.15	
5/2/2017	6.98	
10/3/2017		6.2

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-6	GWC-6
3/28/2016	6.5	
5/24/2016	6	
7/21/2016	6.08	
9/15/2016	6.01	
11/16/2016	5.99	
1/26/2017	6.12	
3/22/2017	5.87	
5/2/2017	5.86	
10/3/2017		5.9

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

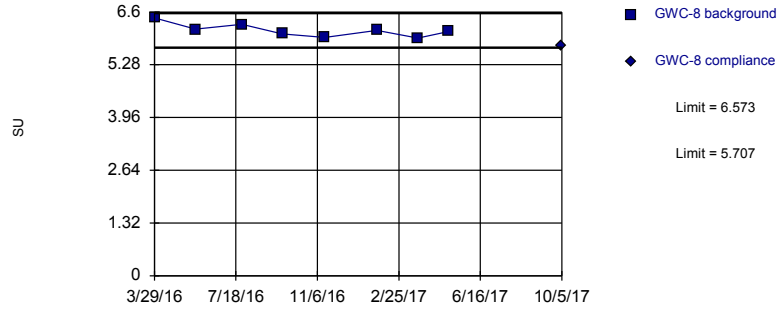
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	GWC-7	GWC-7
3/29/2016	6.42	
5/24/2016	6.38	
7/22/2016	6.44	
9/15/2016	6.38	
11/16/2016	6.35	
1/26/2017	6.45	
3/22/2017	6.34	
5/2/2017	6.32	
10/3/2017		6.34



Within Limits

### Prediction Limit Intrawell Parametric

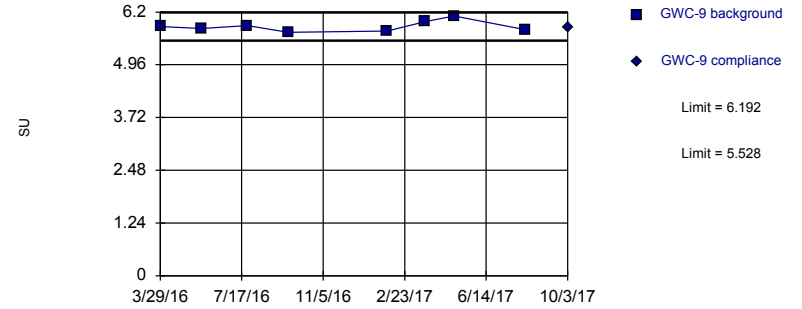


Background Data Summary: Mean=6.14, Std. Dev.=0.1678, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9369, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

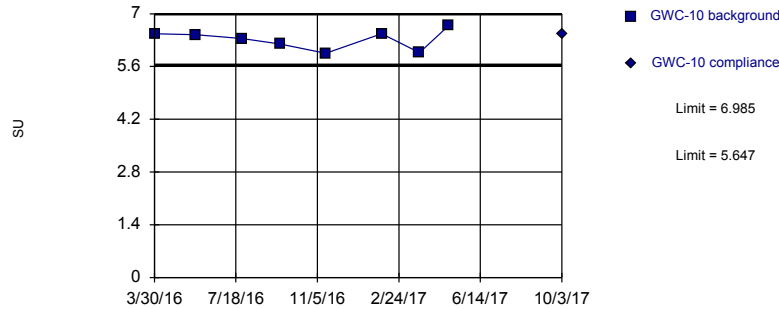


Background Data Summary: Mean=5.86, Std. Dev.=0.1285, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9186, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

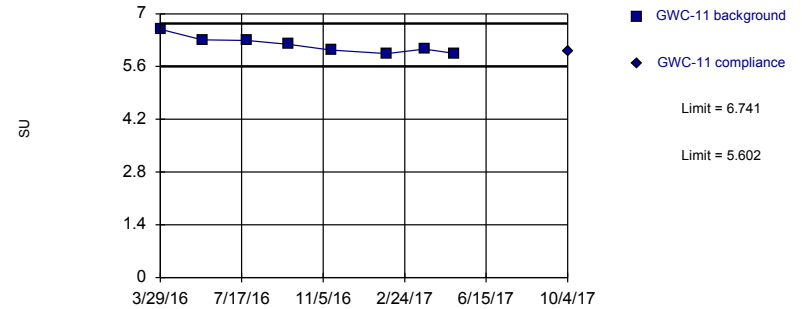


Background Data Summary: Mean=6.316, Std. Dev.=0.2592, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9225, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.171, Std. Dev.=0.2207, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-8	GWC-8
3/29/2016	6.45	
5/24/2016	6.17	
7/26/2016	6.29	
9/19/2016	6.05	
11/16/2016	5.96	
1/26/2017	6.14	
3/23/2017	5.95	
5/3/2017	6.11	
10/5/2017		5.76

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-9	GWC-9
3/29/2016	5.86	
5/24/2016	5.81	
7/25/2016	5.88	
9/19/2016	5.72	
1/31/2017	5.75	
3/23/2017	5.97	
5/2/2017	6.11	
8/7/2017	5.78	
10/3/2017		5.84

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-10	GWC-10
3/30/2016	6.47	
5/25/2016	6.44	
7/27/2016	6.34	
9/16/2016	6.2	
11/17/2016	5.95	
2/1/2017	6.47	
3/24/2017	5.97	
5/3/2017	6.69	
10/3/2017		6.47

# Prediction Limit

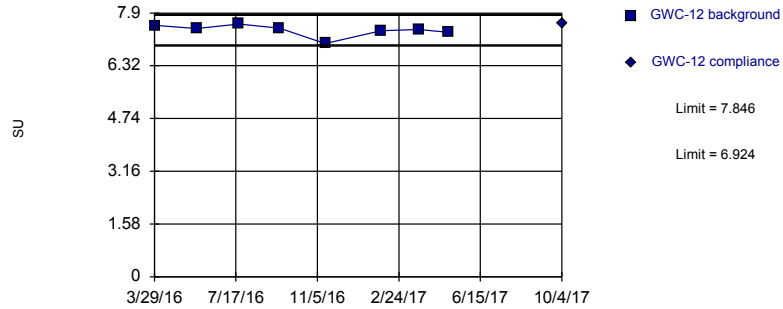
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-11	GWC-11
3/29/2016	6.59	
5/25/2016	6.31	
7/25/2016	6.29	
9/19/2016	6.19	
11/16/2016	6.04	
1/31/2017	5.94	
3/23/2017	6.06	
5/2/2017	5.95	
10/4/2017		6.02

Within Limits

### Prediction Limit Intrawell Parametric

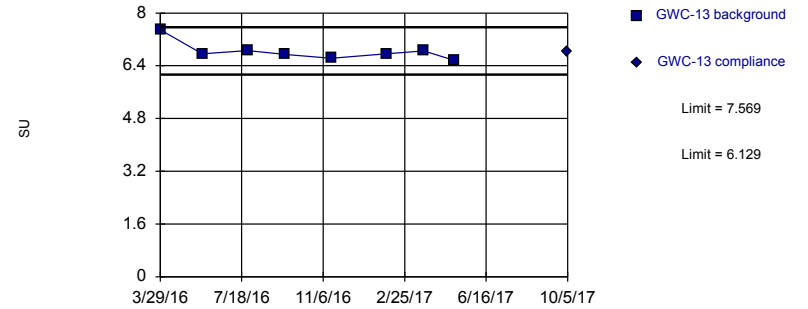


Background Data Summary: Mean=7.385, Std. Dev.=0.1787, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8388, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

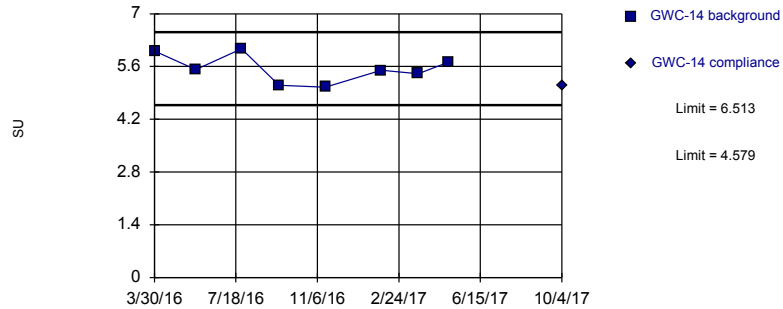


Background Data Summary (based on square root transformation): Mean=2.613, Std. Dev.=0.05336, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7558, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

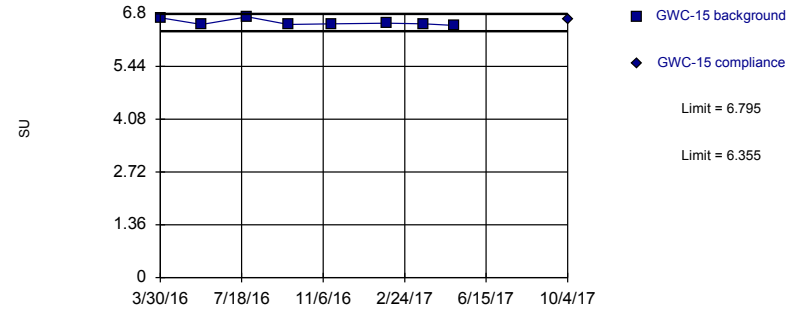


Background Data Summary: Mean=5.546, Std. Dev.=0.3747, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9349, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.575, Std. Dev.=0.08536, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7615, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-12	GWC-12
3/29/2016	7.53	
5/25/2016	7.44	
7/22/2016	7.57	
9/15/2016	7.45	
11/16/2016	6.99	
1/31/2017	7.37	
3/23/2017	7.41	
5/3/2017	7.32	
10/4/2017		7.58

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-13	GWC-13
3/29/2016	7.49	
5/25/2016	6.76	
7/26/2016	6.86	
9/15/2016	6.74	
11/17/2016	6.63	
1/31/2017	6.76	
3/23/2017	6.85	
5/3/2017	6.57	
10/5/2017		6.81



# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-14	GWC-14
3/30/2016	6.01	
5/25/2016	5.52	
7/26/2016	6.07	
9/15/2016	5.1	
11/17/2016	5.05	
2/1/2017	5.5	
3/23/2017	5.41	
5/3/2017	5.71	
10/4/2017		5.11

# Prediction Limit

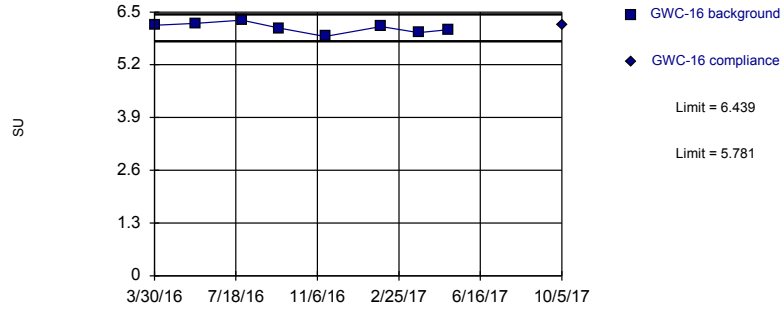
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-15	GWC-15
3/30/2016	6.7	
5/25/2016	6.52	
7/26/2016	6.72	
9/20/2016	6.52	
11/17/2016	6.54	
2/1/2017	6.56	
3/23/2017	6.54	
5/3/2017	6.5	
10/4/2017		6.67

Within Limits

### Prediction Limit Intrawell Parametric

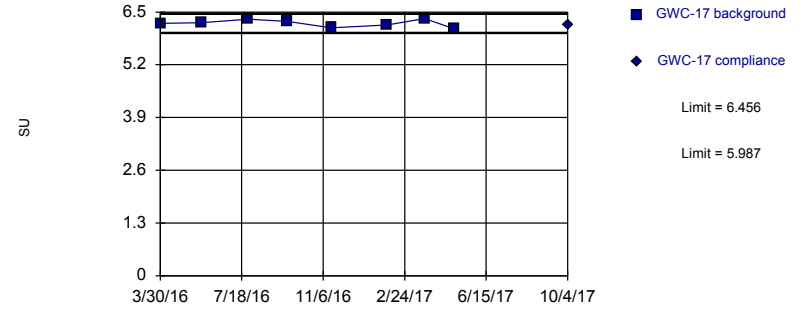


Background Data Summary: Mean=6.11, Std. Dev.=0.1275, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9936, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

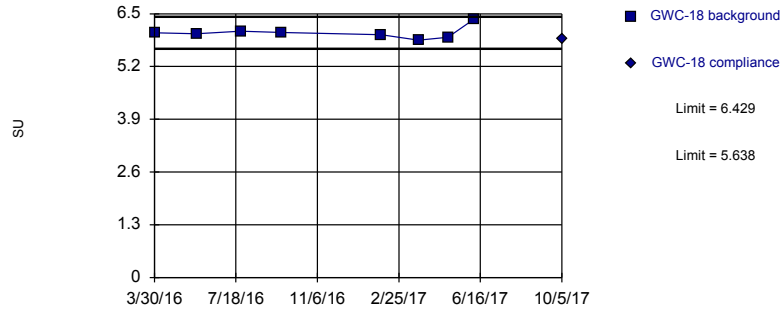


Background Data Summary: Mean=6.221, Std. Dev.=0.09094, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9504, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

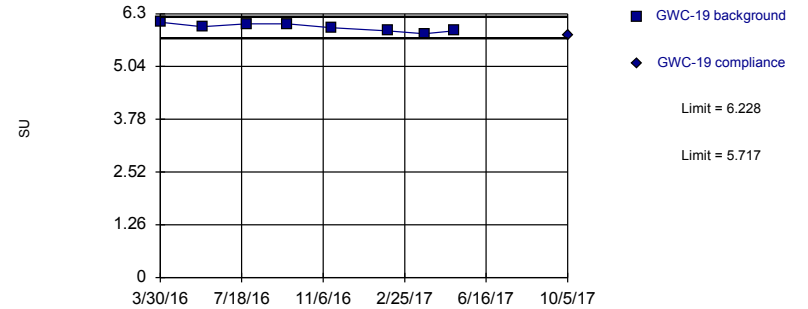


Background Data Summary: Mean=6.034, Std. Dev.=0.1533, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8487, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=5.973, Std. Dev.=0.0991, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9384, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-16	GWC-16
3/30/2016	6.17	
5/25/2016	6.22	
7/27/2016	6.3	
9/16/2016	6.1	
11/17/2016	5.9	
2/1/2017	6.14	
3/24/2017	5.99	
5/3/2017	6.06	
10/5/2017		6.19

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-17	GWC-17
3/30/2016	6.22	
5/25/2016	6.24	
7/27/2016	6.32	
9/19/2016	6.27	
11/17/2016	6.11	
2/1/2017	6.18	
3/24/2017	6.34	
5/3/2017	6.09	
10/4/2017		6.18

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-18	GWC-18
3/30/2016	6.03	
5/26/2016	6.01	
7/25/2016	6.07	
9/19/2016	6.04	
2/1/2017	5.98	
3/24/2017	5.85	
5/3/2017	5.92	
6/8/2017	6.37	
10/5/2017		5.87

# Prediction Limit

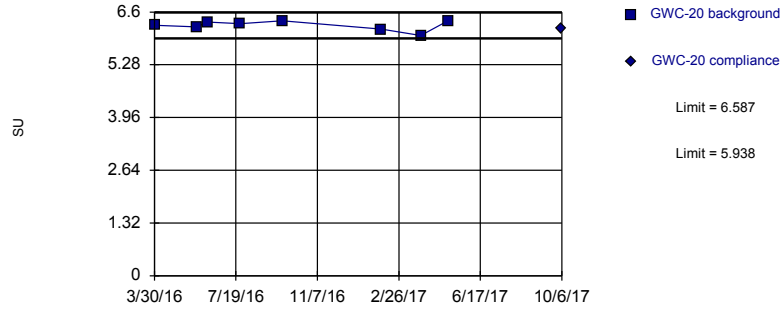
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-19	GWC-19
3/30/2016	6.1	
5/26/2016	5.99	
7/25/2016	6.06	
9/19/2016	6.06	
11/17/2016	5.97	
2/2/2017	5.89	
3/24/2017	5.82	
5/3/2017	5.89	
10/5/2017		5.79

Within Limits

Prediction Limit  
Intrawell Parametric

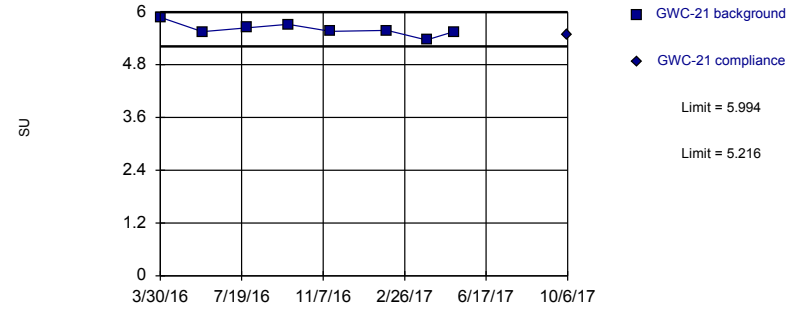


Background Data Summary: Mean=6.263, Std. Dev.=0.1259, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.886, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

Prediction Limit  
Intrawell Parametric

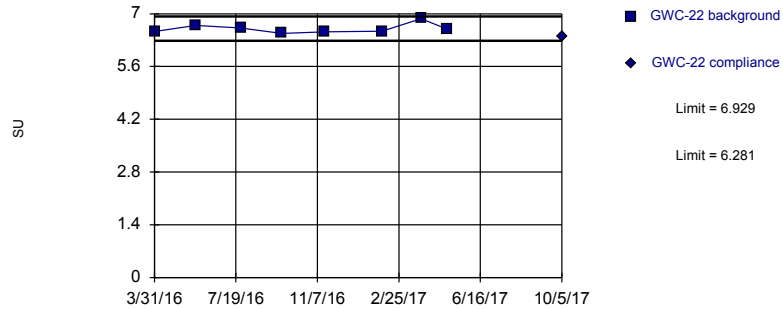


Background Data Summary: Mean=5.605, Std. Dev.=0.1506, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9349, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

Prediction Limit  
Intrawell Parametric

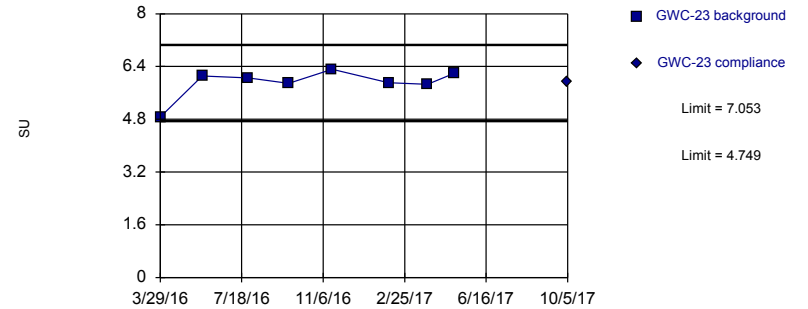


Background Data Summary: Mean=6.605, Std. Dev.=0.1257, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8594, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=5.901, Std. Dev.=0.4465, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7621, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126



# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-20	GWC-20
3/30/2016	6.27	
5/26/2016	6.23	
6/11/2016	6.35	
7/25/2016	6.31	
9/20/2016	6.38	
2/2/2017	6.17	
3/28/2017	6.01	
5/4/2017	6.38	
10/6/2017		6.2

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-21	GWC-21
3/30/2016	5.88	
5/26/2016	5.55	
7/26/2016	5.64	
9/20/2016	5.72	
11/17/2016	5.56	
2/2/2017	5.58	
3/28/2017	5.36	
5/4/2017	5.55	
10/6/2017		5.47

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-22	GWC-22
3/31/2016	6.53	
5/26/2016	6.69	
7/26/2016	6.62	
9/20/2016	6.48	
11/17/2016	6.52	
2/3/2017	6.54	
3/28/2017	6.87	
5/3/2017	6.59	
10/5/2017		6.4

# Prediction Limit

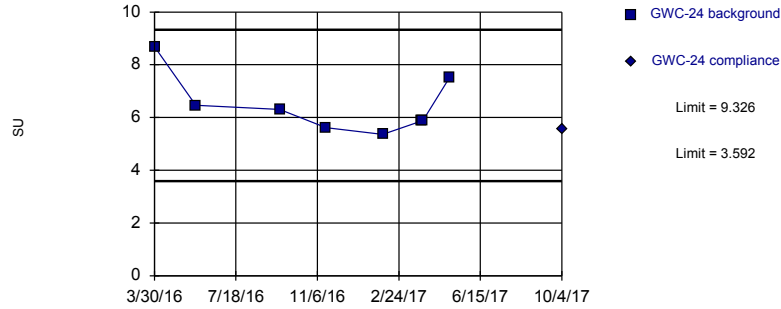
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-23	GWC-23
3/29/2016	4.87	
5/25/2016	6.11	
7/27/2016	6.05	
9/20/2016	5.89	
11/18/2016	6.32	
2/3/2017	5.91	
3/28/2017	5.86	
5/4/2017	6.2	
10/5/2017		5.95

Within Limits

### Prediction Limit Intrawell Parametric

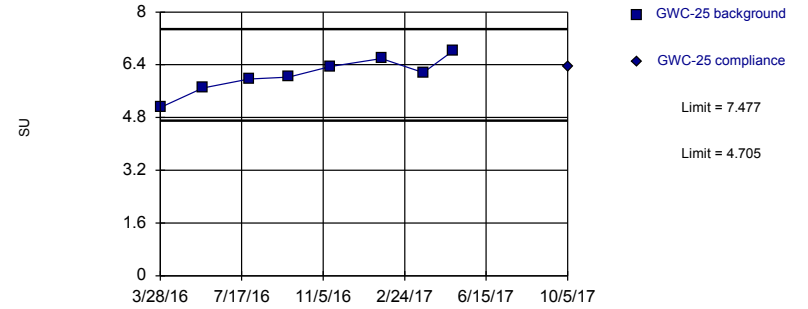


Background Data Summary: Mean=6.459, Std. Dev.=1.111, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8632, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

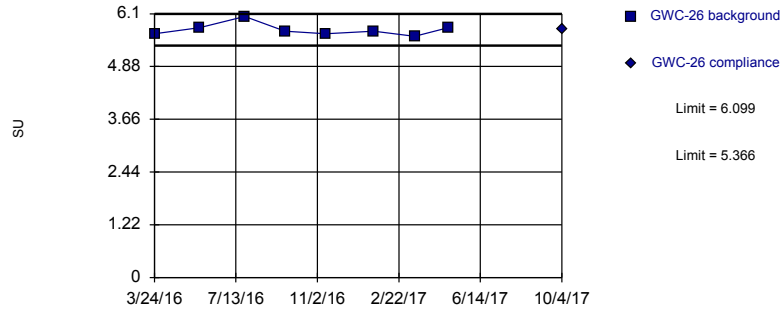


Background Data Summary: Mean=6.091, Std. Dev.=0.5372, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9731, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

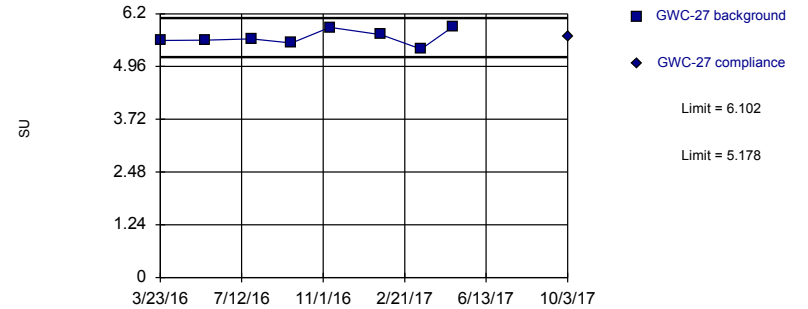


Background Data Summary: Mean=5.733, Std. Dev.=0.1422, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8511, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=5.64, Std. Dev.=0.179, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.935, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-24	GWC-24
3/30/2016	8.68	
5/25/2016	6.46	
9/16/2016	6.31	
11/18/2016	5.62	
2/3/2017	5.36	
3/28/2017	5.87	
3/29/2017	5.87	
5/4/2017	7.5	
10/4/2017		5.54

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-25	GWC-25
3/28/2016	5.1	
5/25/2016	5.7	
7/27/2016	5.97	
9/19/2016	6.03	
11/15/2016	6.35	
1/24/2017	6.59	
3/22/2017	6.16	
5/2/2017	6.83	
10/5/2017		6.36

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-26	GWC-26
3/24/2016	5.64	
5/25/2016	5.78	
7/26/2016	6.04	
9/19/2016	5.7	
11/14/2016	5.64	
1/19/2017	5.7	
3/16/2017	5.58	
5/1/2017	5.78	
10/4/2017		5.75



# Prediction Limit

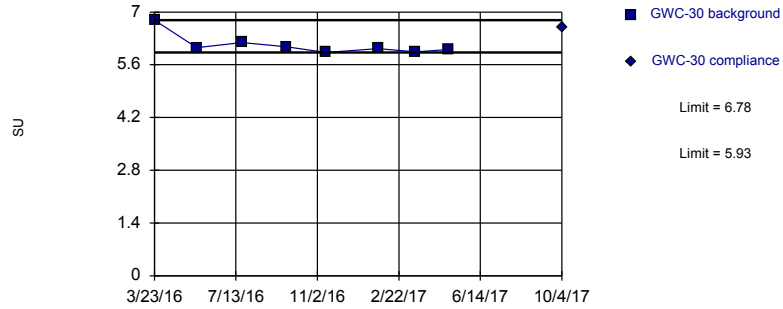
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-27	GWC-27
3/23/2016	5.57	
5/24/2016	5.58	
7/26/2016	5.61	
9/19/2016	5.51	
11/11/2016	5.88	
1/20/2017	5.71	
3/16/2017	5.37	
4/28/2017	5.89	
10/3/2017		5.67

Within Limits

### Prediction Limit Intrawell Non-parametric

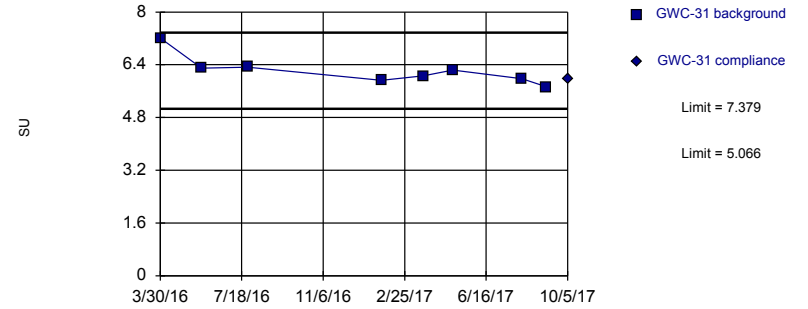


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.02358. Individual comparison alpha = 0.01182 (1 of 3).

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

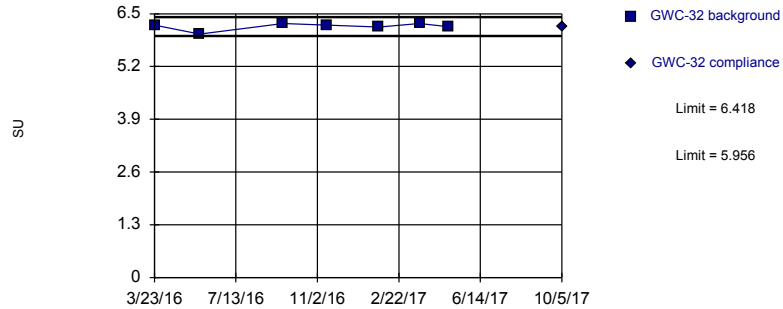


Background Data Summary: Mean=6.223, Std. Dev.=0.4482, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8419, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric

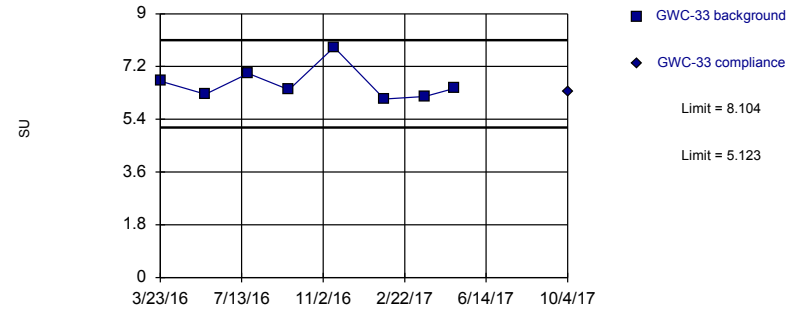


Background Data Summary: Mean=6.187, Std. Dev.=0.08958, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7894, critical = 0.73. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.614, Std. Dev.=0.5777, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8352, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-30	GWC-30
3/23/2016	6.78	
5/20/2016	6.05	
7/21/2016	6.19	
9/20/2016	6.08	
11/14/2016	5.93	
1/24/2017	6.03	
3/17/2017	5.94	
5/1/2017	6	
10/4/2017		6.58

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-31	GWC-31
3/30/2016	7.21	
5/25/2016	6.3	
7/27/2016	6.33	
1/25/2017	5.93	
3/23/2017	6.06	
5/2/2017	6.24	
8/4/2017	5.98	
9/6/2017	5.73	
10/5/2017		5.97

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-32	GWC-32
3/23/2016	6.22	
5/24/2016	6	
7/22/2016	7.55 (O)	
9/16/2016	6.26	
11/15/2016	6.22	
1/26/2017	6.17	
3/23/2017	6.26	
5/2/2017	6.18	
10/5/2017		6.18

# Prediction Limit

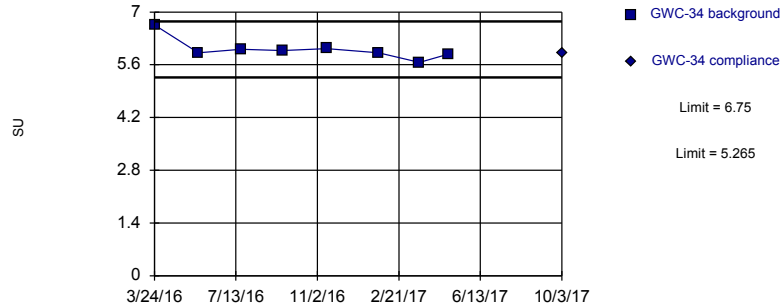
Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-33	GWC-33
3/23/2016	6.7	
5/24/2016	6.26	
7/22/2016	6.96	
9/16/2016	6.41	
11/17/2016	7.86	
1/25/2017	6.09	
3/22/2017	6.18	
5/1/2017	6.45	
10/4/2017		6.36

Within Limits

Prediction Limit  
Intrawell Parametric

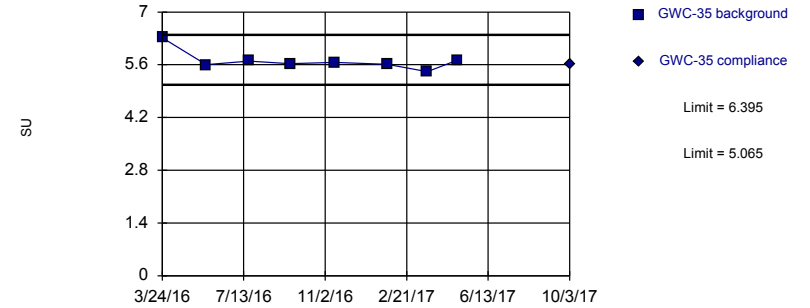


Background Data Summary: Mean=6.008, Std. Dev.=0.2877, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7788, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limits

Prediction Limit  
Intrawell Parametric

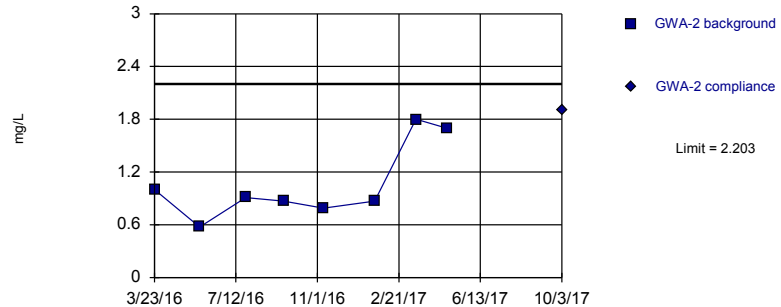


Background Data Summary (based on cube root transformation): Mean=1.787, Std. Dev.=0.02692, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7498, critical = 0.749. Kappa overridden to 2.58.

Constituent: pH Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

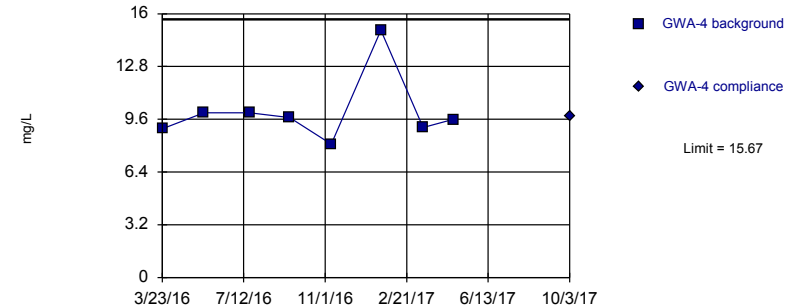


Background Data Summary: Mean=1.065, Std. Dev.=0.4412, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8151, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=2.151, Std. Dev.=0.136, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7523, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-34	GWC-34
3/24/2016	6.66	
5/23/2016	5.92	
7/21/2016	6.01	
9/15/2016	5.98	
11/15/2016	6.03	
1/25/2017	5.92	
3/22/2017	5.66	
5/1/2017	5.88	
10/3/2017		5.91



# Prediction Limit

Constituent: pH (SU) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-35	GWC-35
3/24/2016	6.32	
5/23/2016	5.6	
7/21/2016	5.7	
9/15/2016	5.63	
11/15/2016	5.66	
1/26/2017	5.61	
3/22/2017	5.42	
5/2/2017	5.72	
10/3/2017		5.62

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-2	GWA-2
3/23/2016	1.001	
5/24/2016	0.576 (J)	
7/26/2016	0.91 (J)	
9/16/2016	0.87 (J)	
11/10/2016	0.79 (J)	
1/19/2017	0.87 (J)	
3/17/2017	1.8	
4/28/2017	1.7	
10/3/2017		1.9

# Prediction Limit

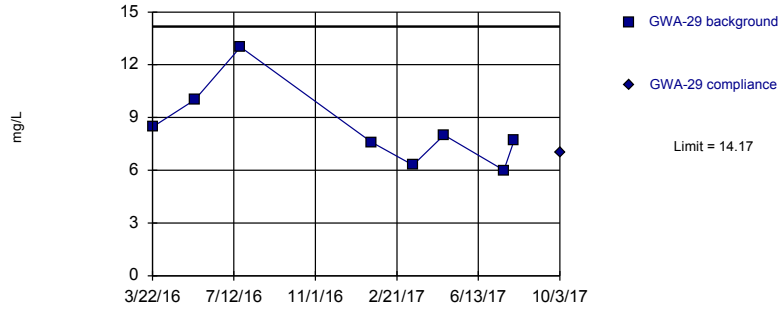
Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-4	GWA-4
3/23/2016	9.0208	
5/19/2016	10	
7/21/2016	10	
9/14/2016	9.7	
11/10/2016	8.1	
1/17/2017	15	
3/16/2017	9.1	
4/27/2017	9.6	
10/3/2017		9.8

Within Limit

### Prediction Limit Intrawell Parametric

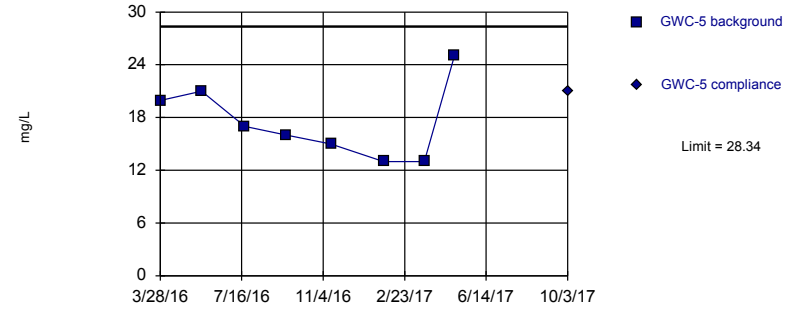


Background Data Summary: Mean=8.383, Std. Dev.=2.242, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8834, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

### Prediction Limit Intrawell Parametric

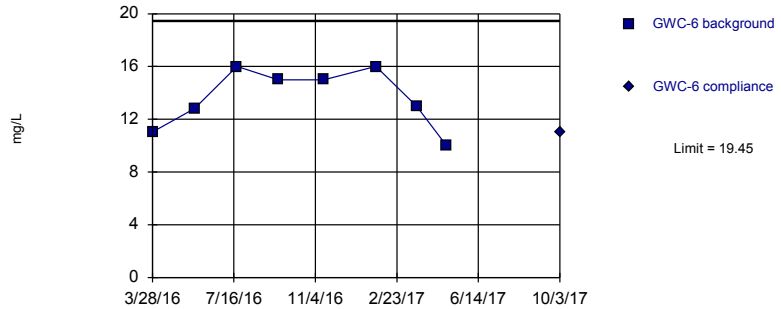


Background Data Summary: Mean=17.49, Std. Dev.=4.204, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9274, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

### Prediction Limit Intrawell Parametric

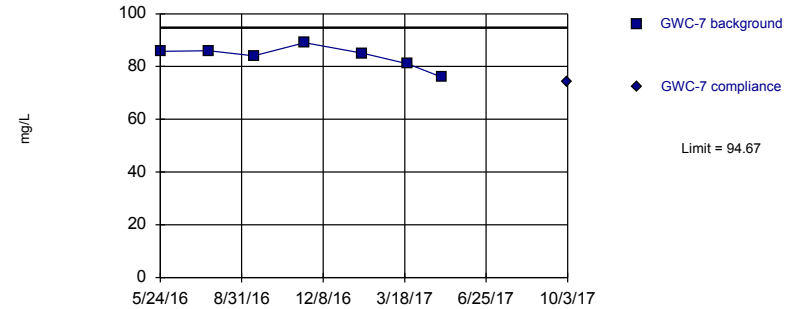


Background Data Summary: Mean=13.6, Std. Dev.=2.267, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9023, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=83.83, Std. Dev.=4.204, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.73. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-29	GWA-29
3/22/2016	8.4662	
5/19/2016	10	
7/21/2016	13	
1/17/2017	7.6	
3/15/2017	6.3	
4/27/2017	8	
7/18/2017	6	
8/1/2017	7.7	
10/3/2017		7

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-5	GWC-5
3/28/2016	19.9405	
5/23/2016	21	
7/21/2016	17	
9/15/2016	16	
11/15/2016	15	
1/26/2017	13	
3/22/2017	13	
5/2/2017	25	
10/3/2017		21

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-6	GWC-6
3/28/2016	11.0351	
5/24/2016	12.8	
7/21/2016	16	
9/15/2016	15	
11/16/2016	15	
1/26/2017	16	
3/22/2017	13	
5/2/2017	10	
10/3/2017		11

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

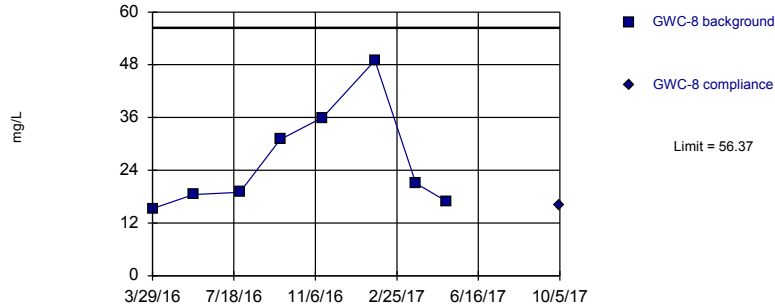
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	GWC-7	GWC-7
3/29/2016	22.385 (JO)	
5/24/2016	85.8	
7/22/2016	86	
9/15/2016	84	
11/16/2016	89	
1/26/2017	85	
3/22/2017	81	
5/2/2017	76	
10/3/2017		74



Within Limit

Prediction Limit  
Intrawell Parametric

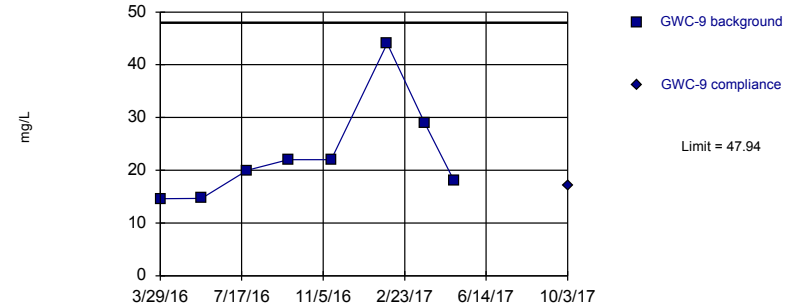


Background Data Summary: Mean=25.85, Std. Dev.=11.83, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8408, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

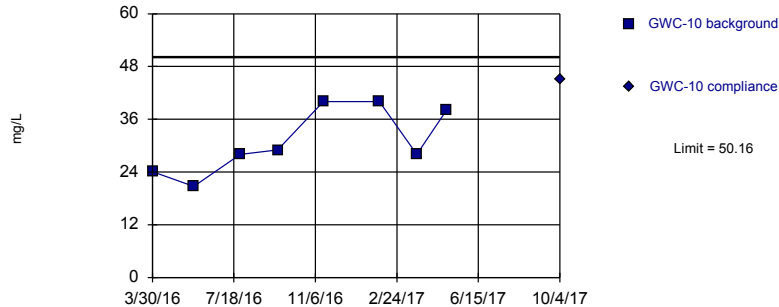


Background Data Summary: Mean=23.04, Std. Dev.=9.652, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8193, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

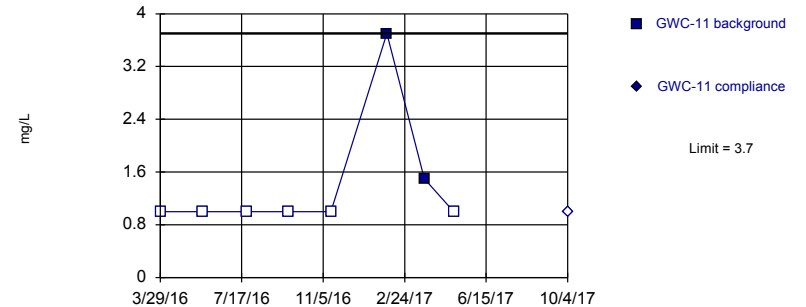


Background Data Summary: Mean=30.97, Std. Dev.=7.437, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.886, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-8	GWC-8
3/29/2016	15.2958	
5/24/2016	18.5	
7/26/2016	19	
9/19/2016	31	
11/16/2016	36	
1/26/2017	49	
3/23/2017	21	
5/3/2017	17	
10/5/2017		16

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-9	GWC-9
3/29/2016	14.6203	
5/24/2016	14.7	
7/25/2016	20	
9/19/2016	22	
11/16/2016	22	
1/31/2017	44	
3/23/2017	29	
5/2/2017	18	
10/3/2017		17

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-10	GWC-10
3/30/2016	24.0688	
5/25/2016	20.7	
7/27/2016	28	
9/16/2016	29	
11/17/2016	40	
2/1/2017	40	
3/24/2017	28	
5/3/2017	38	
10/4/2017		45

# Prediction Limit

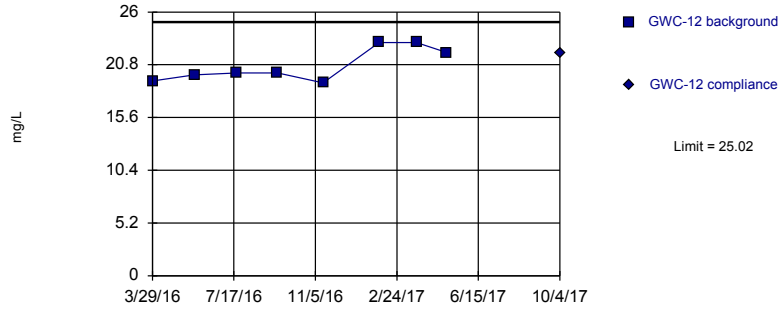
Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-11	GWC-11
3/29/2016	<1	
5/25/2016	<1	
7/25/2016	<1	
9/19/2016	<1	
11/16/2016	<1	
1/31/2017	3.7	
3/23/2017	1.5	
5/2/2017	<1	
10/4/2017		<1

Within Limit

Prediction Limit  
Intrawell Parametric

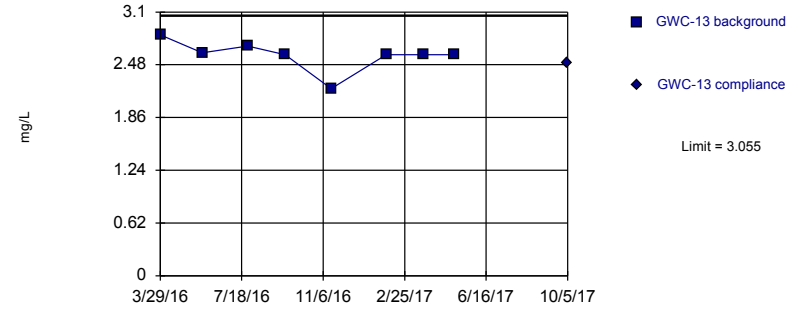


Background Data Summary: Mean=20.75, Std. Dev.=1.657, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8369, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

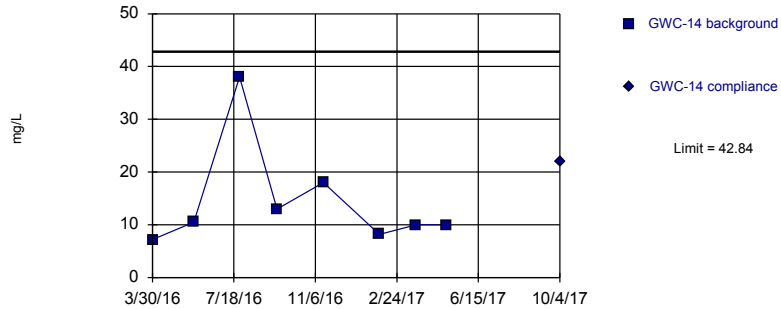


Background Data Summary: Mean=2.594, Std. Dev.=0.1788, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7786, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

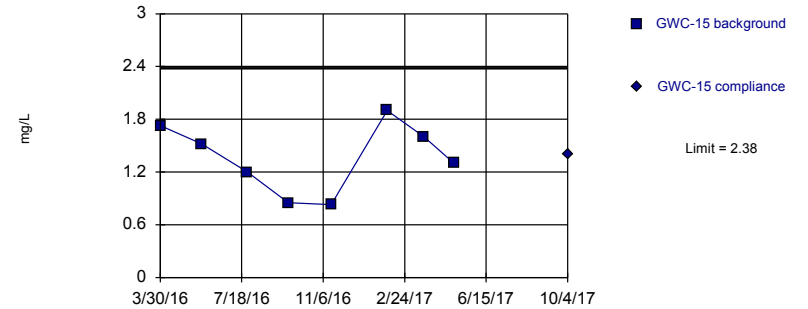


Background Data Summary (based on square root transformation): Mean=3.641, Std. Dev.=1.126, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7765, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=1.366, Std. Dev.=0.393, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9395, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-12	GWC-12
3/29/2016	19.1889	
5/25/2016	19.8	
7/22/2016	20	
9/15/2016	20	
11/16/2016	19	
1/31/2017	23	
3/23/2017	23	
5/3/2017	22	
10/4/2017		22

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-13	GWC-13
3/29/2016	2.8316	
5/25/2016	2.62	
7/26/2016	2.7	
9/15/2016	2.6	
11/17/2016	2.2	
1/31/2017	2.6	
3/23/2017	2.6	
5/3/2017	2.6	
10/5/2017		2.5



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-14	GWC-14
3/30/2016	7.2023	
5/25/2016	10.5	
7/26/2016	38	
9/15/2016	13	
11/17/2016	18	
2/1/2017	8.2	
3/23/2017	10	
5/3/2017	10	
10/4/2017		22

# Prediction Limit

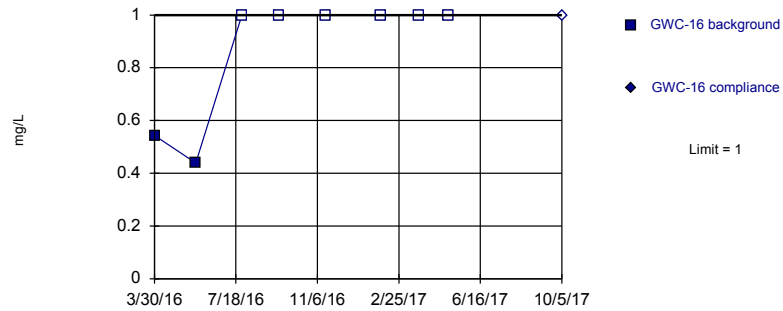
Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-15	GWC-15
3/30/2016	1.7296	
5/25/2016	1.52	
7/26/2016	1.2	
9/20/2016	0.85 (J)	
11/17/2016	0.83 (J)	
2/1/2017	1.9	
3/23/2017	1.6	
5/3/2017	1.3	
10/4/2017		1.4

Within Limit

Prediction Limit  
Intrawell Non-parametric

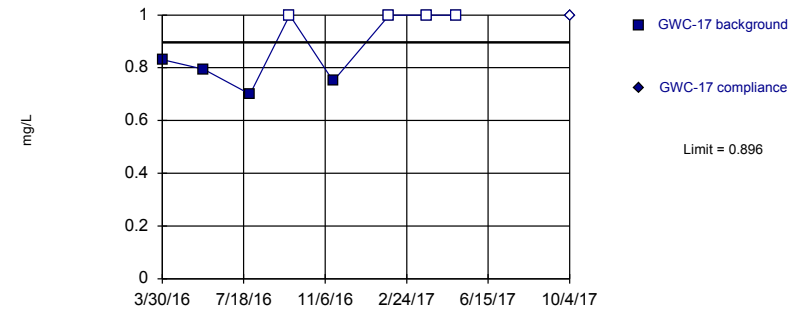


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

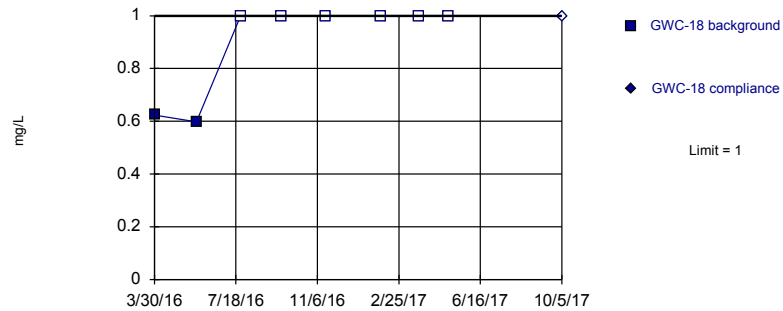


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.7691, Std. Dev.=0.04919, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8041, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Non-parametric

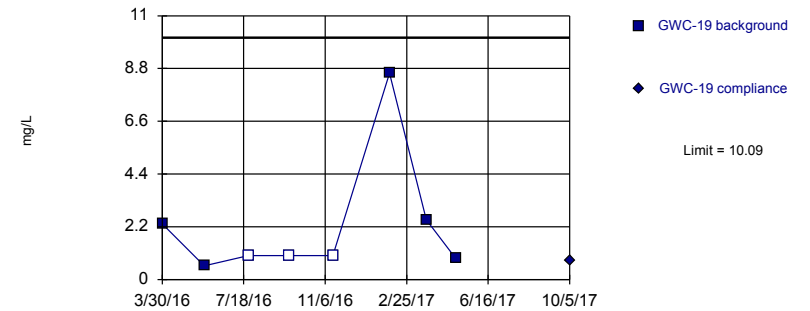


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=1.15, Std. Dev.=0.3917, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7874, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-16	GWC-16
3/30/2016	0.5433 (J)	
5/25/2016	0.4393 (J)	
7/27/2016	<1	
9/16/2016	<1	
11/17/2016	<1	
2/1/2017	<1	
3/24/2017	<1	
5/3/2017	<1	
10/5/2017		<1

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-17	GWC-17
3/30/2016	0.8313 (J)	
5/25/2016	0.795 (J)	
7/27/2016	0.7 (J)	
9/19/2016	<1	
11/17/2016	0.75 (J)	
2/1/2017	<1	
3/24/2017	<1	
5/3/2017	<1	
10/4/2017		<1

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-18	GWC-18
3/30/2016	0.6239 (J)	
5/26/2016	0.598 (J)	
7/25/2016	<1	
9/19/2016	<1	
11/17/2016	<1	
2/1/2017	<1	
3/24/2017	<1	
5/3/2017	<1	
10/5/2017		<1

# Prediction Limit

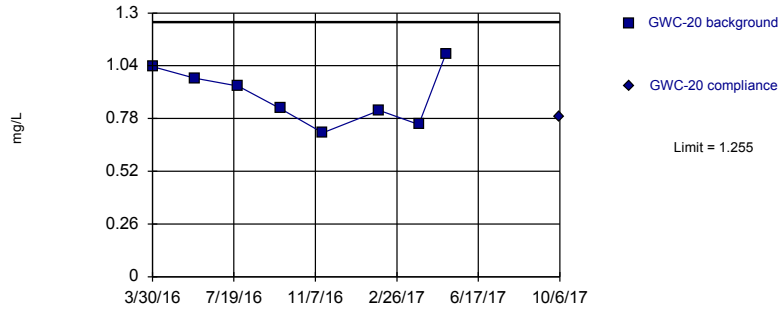
Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-19	GWC-19
3/30/2016	2.3237	
5/26/2016	0.574 (J)	
7/25/2016	<1	
9/19/2016	<1	
11/17/2016	<1	
2/2/2017	8.6	
3/24/2017	2.5	
5/3/2017	0.88 (J)	
10/5/2017		0.81 (J)

Within Limit

Prediction Limit  
Intrawell Parametric

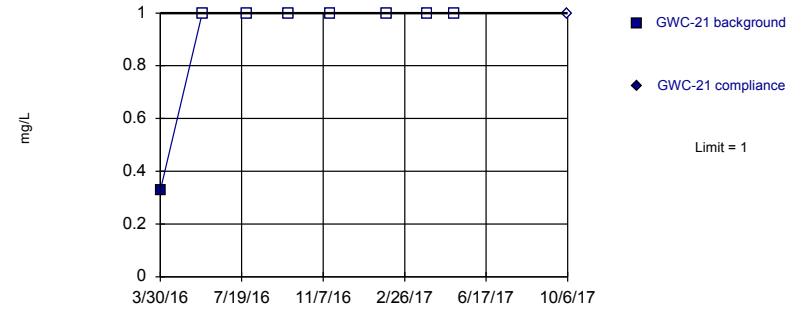


Background Data Summary: Mean=0.8956, Std. Dev.=0.1394, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9546, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Non-parametric



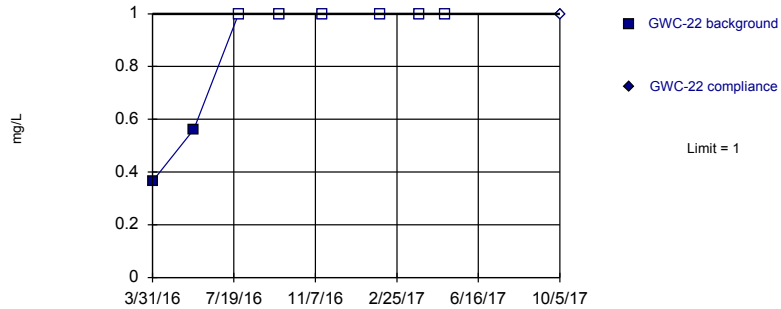
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/26/2018 4:30 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Hollow symbols indicate censored values.

Within Limit

Prediction Limit  
Intrawell Non-parametric



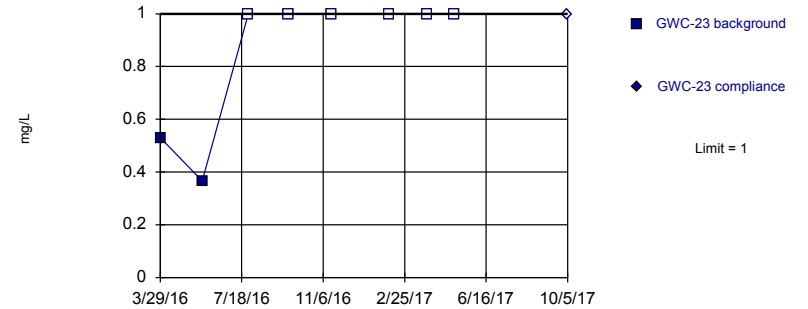
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Hollow symbols indicate censored values.

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: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-20	GWC-20
3/30/2016	1.0356	
5/26/2016	0.979 (J)	
7/25/2016	0.94 (J)	
9/20/2016	0.83 (J)	
11/17/2016	0.71 (J)	
2/2/2017	0.82 (J)	
3/28/2017	0.75 (J)	
5/4/2017	1.1	
10/6/2017		0.79 (J)

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-21	GWC-21
3/30/2016	0.3269 (J)	
5/26/2016	<1	
7/26/2016	<1	
9/20/2016	<1	
11/17/2016	<1	
2/2/2017	<1	
3/28/2017	<1	
5/4/2017	<1	
10/6/2017		<1

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-22	GWC-22
3/31/2016	0.3648 (J)	
5/26/2016	0.562 (J)	
7/26/2016	<1	
9/20/2016	<1	
11/17/2016	<1	
2/3/2017	<1	
3/28/2017	<1	
5/3/2017	<1	
10/5/2017		<1

# Prediction Limit

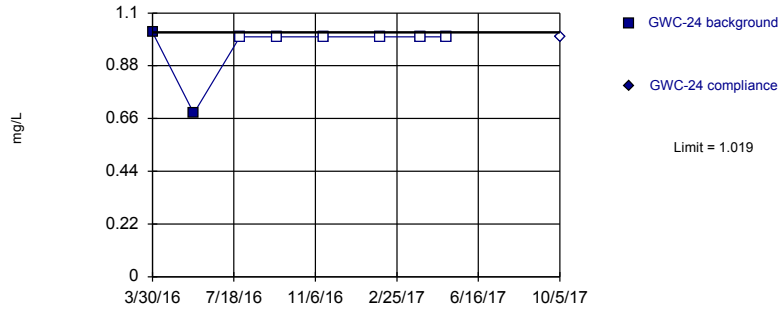
Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-23	GWC-23
3/29/2016	0.5302 (J)	
5/25/2016	0.3659 (J)	
7/27/2016	<1	
9/20/2016	<1	
11/18/2016	<1	
2/3/2017	<1	
3/28/2017	<1	
5/4/2017	<1	
10/5/2017		<1

Within Limit

Prediction Limit  
Intrawell Non-parametric

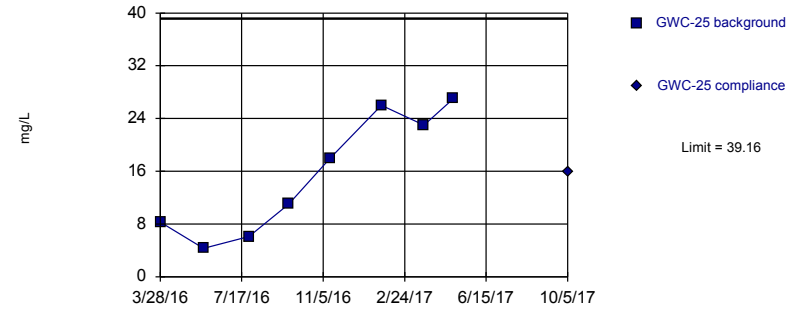


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

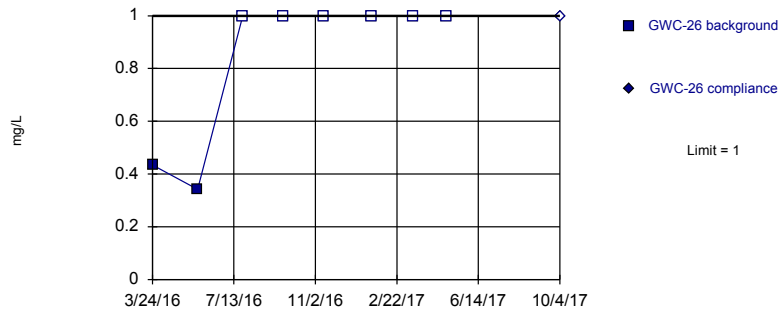


Background Data Summary: Mean=15.47, Std. Dev.=9.184, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8944, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Non-parametric

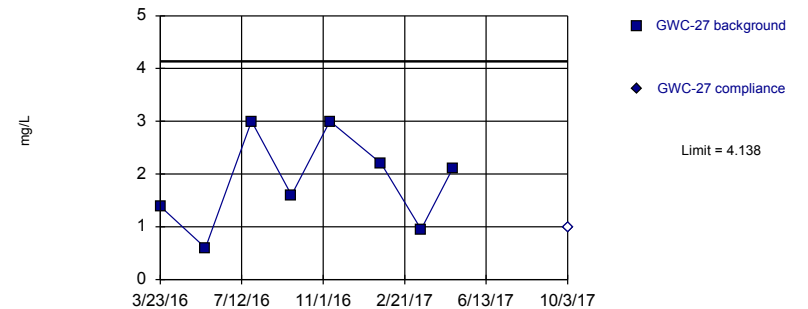


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=1.855, Std. Dev.=0.8849, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9413, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-24	GWC-24
3/30/2016	1.0189	
5/25/2016	0.6811 (J)	
7/27/2016	<1	
9/16/2016	<1	
11/18/2016	<1	
2/3/2017	<1	
3/29/2017	<1	
5/4/2017	<1	
10/5/2017		<1

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-25	GWC-25
3/28/2016	8.3151	
5/26/2016	4.31	
7/27/2016	6.1	
9/19/2016	11	
11/15/2016	18	
1/24/2017	26	
3/23/2017	23	
5/2/2017	27	
10/5/2017		16

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-26	GWC-26
3/24/2016	0.4337 (J)	
5/25/2016	0.3421 (J)	
7/26/2016	<1	
9/19/2016	<1	
11/14/2016	<1	
1/19/2017	<1	
3/16/2017	<1	
5/1/2017	<1	
10/4/2017		<1



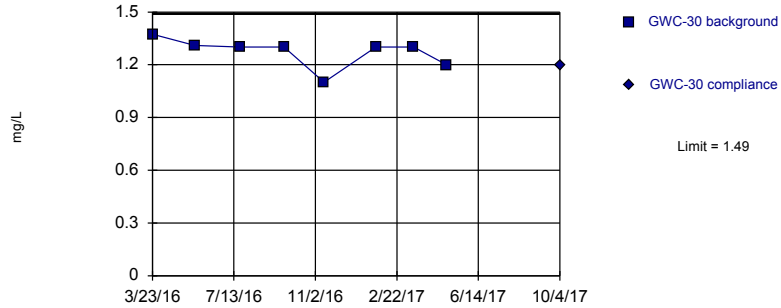
# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-27	GWC-27
3/23/2016	1.3897	
5/24/2016	0.598 (J)	
7/26/2016	3	
9/19/2016	1.6	
11/11/2016	3	
1/20/2017	2.2	
3/16/2017	0.95 (J)	
4/28/2017	2.1	
10/3/2017		<1

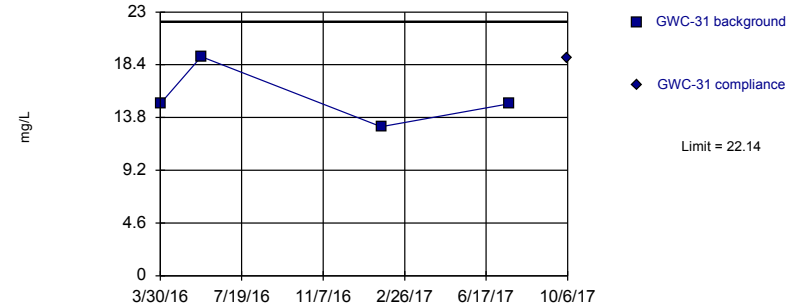
Within Limit Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=1.273, Std. Dev.=0.08411, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8074, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

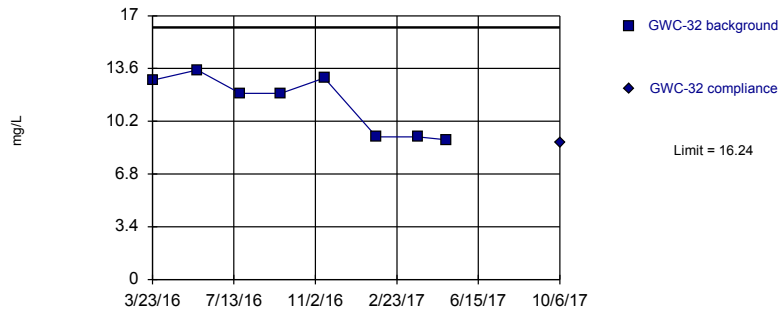
Within Limit Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=15.53, Std. Dev.=2.562, n=4. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.893, critical = 0.687. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

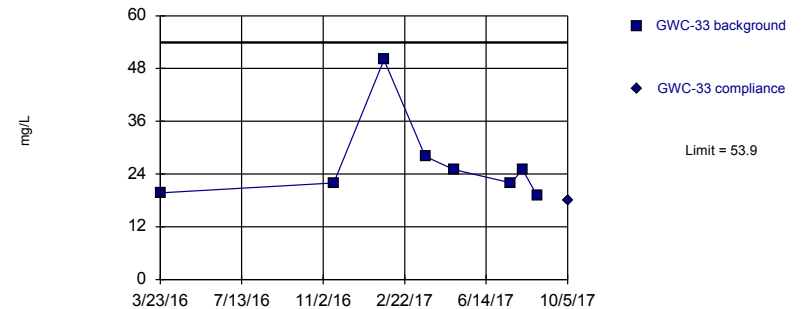
Within Limit Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=11.34, Std. Dev.=1.897, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8257, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit Prediction Limit  
Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=2.943, Std. Dev.=0.3235, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.766, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-30	GWC-30
3/23/2016	1.3729	
5/20/2016	1.31	
7/21/2016	1.3	
9/20/2016	1.3	
11/14/2016	1.1	
1/24/2017	1.3	
3/17/2017	1.3	
5/1/2017	1.2	
10/4/2017		1.2

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-31	GWC-31
3/30/2016	15.0114	
5/25/2016	19.1	
1/25/2017	13	
7/19/2017	15	
9/6/2017	76 (Jo)	
10/6/2017		19

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-32	GWC-32
3/23/2016	12.8473	
5/24/2016	13.5	
7/22/2016	12	
9/16/2016	12	
11/15/2016	13	
1/26/2017	9.2	
3/24/2017	9.2	
5/2/2017	9	
10/6/2017		8.8

# Prediction Limit

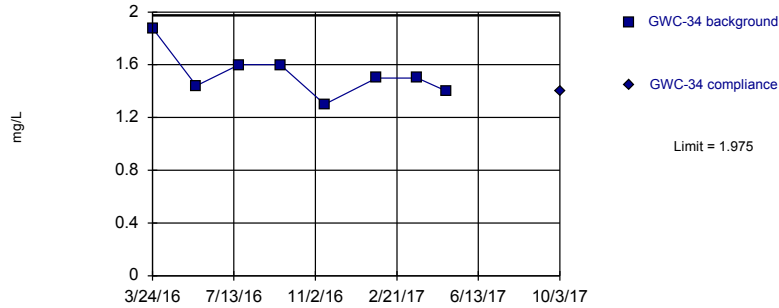
Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-33	GWC-33
3/23/2016	19.6956	
11/17/2016	22	
1/25/2017	50	
3/23/2017	28	
5/1/2017	25	
7/19/2017	22	
8/4/2017	25	
8/24/2017	19	
9/6/2017	<100 (o)	
10/5/2017		18

Within Limit

Prediction Limit  
Intrawell Parametric

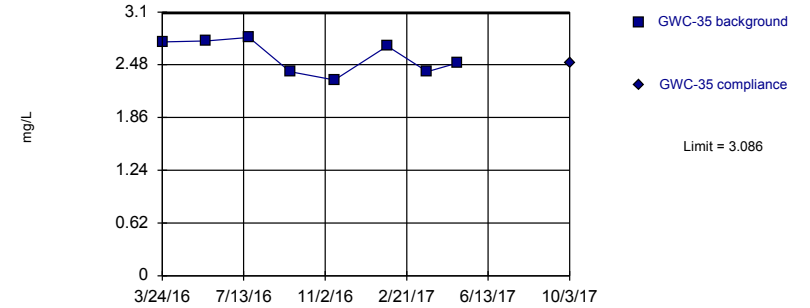


Background Data Summary: Mean=1.527, Std. Dev.=0.1735, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9235, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

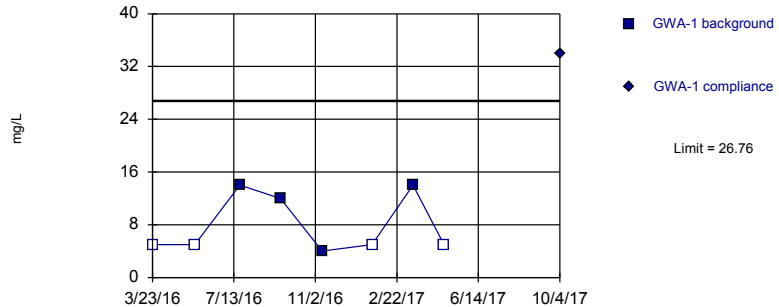


Background Data Summary: Mean=2.576, Std. Dev.=0.1975, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8739, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Exceeds Limit

Prediction Limit  
Intrawell Parametric

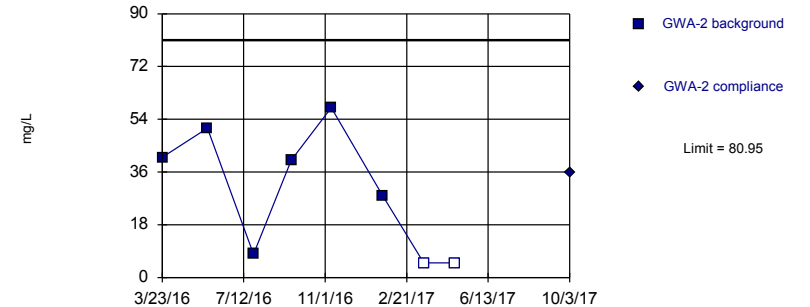


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=1.824, Std. Dev.=0.567, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7579, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=29.5, Std. Dev.=19.94, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-34	GWC-34
3/24/2016	1.8782	
5/23/2016	1.44	
7/21/2016	1.6	
9/15/2016	1.6	
11/15/2016	1.3	
1/25/2017	1.5	
3/22/2017	1.5	
5/1/2017	1.4	
10/3/2017		1.4



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-35	GWC-35
3/24/2016	2.7482	
5/23/2016	2.76	
7/21/2016	2.8	
9/15/2016	2.4	
11/15/2016	2.3	
1/26/2017	2.7	
3/22/2017	2.4	
5/2/2017	2.5	
10/3/2017		2.5

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-1	GWA-1
3/23/2016	<5	
5/20/2016	<5	
7/21/2016	14	
9/15/2016	12	
11/11/2016	4 (J)	
1/19/2017	<5	
3/16/2017	14	
4/28/2017	<5	
10/4/2017		34

# Prediction Limit

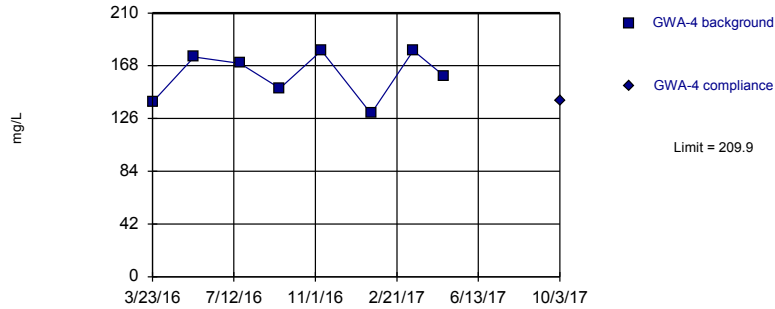
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-2	GWA-2
3/23/2016	41	
5/24/2016	51	
7/26/2016	8	
9/16/2016	40	
11/10/2016	58	
1/19/2017	28	
3/17/2017	<5	
4/28/2017	<5	
10/3/2017		36

Within Limit

Prediction Limit  
Intrawell Parametric

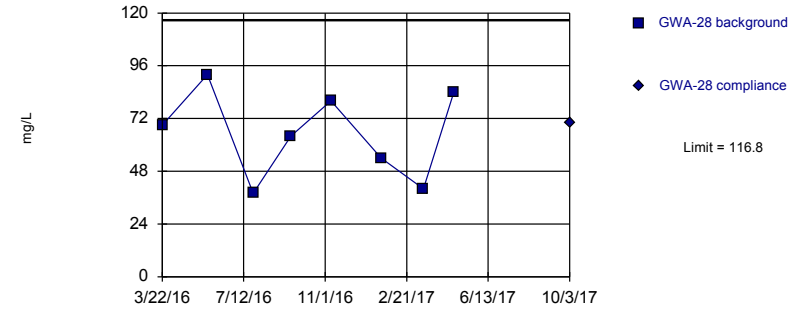


Background Data Summary: Mean=160.5, Std. Dev.=19.14, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9043, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

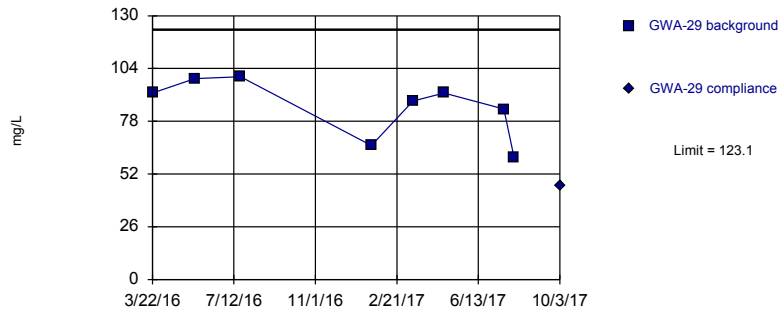


Background Data Summary: Mean=65.13, Std. Dev.=20.02, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9418, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

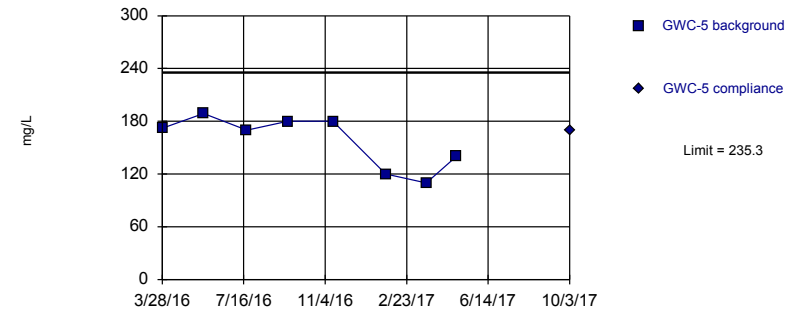


Background Data Summary: Mean=85.13, Std. Dev.=14.71, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8683, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=157.6, Std. Dev.=30.09, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8609, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-4	GWA-4
3/23/2016	139	
5/19/2016	175	
7/21/2016	170	
9/14/2016	150	
11/10/2016	180	
1/17/2017	130	
3/16/2017	180	
4/27/2017	160	
10/3/2017		140

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-28	GWA-28
3/22/2016	69	
5/23/2016	92	
7/25/2016	38	
9/15/2016	64	
11/9/2016	80	
1/17/2017	54	
3/16/2017	40	
4/27/2017	84	
10/3/2017		70

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-29	GWA-29
3/22/2016	92	
5/19/2016	99	
7/21/2016	100	
1/17/2017	66	
3/15/2017	88	
4/27/2017	92	
7/18/2017	84	
8/1/2017	60	
10/3/2017		46

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

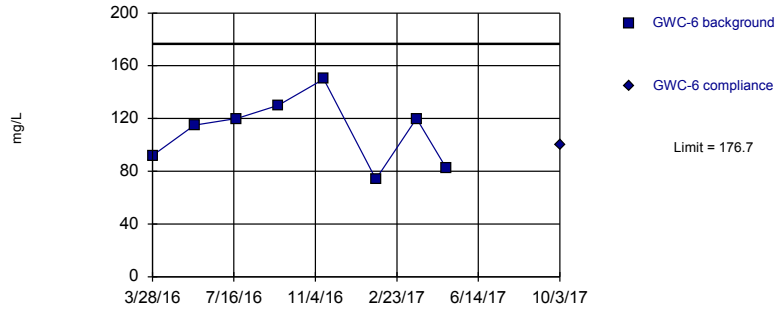
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	GWC-5	GWC-5
3/28/2016	172	
5/23/2016	189	
7/21/2016	170	
9/15/2016	180	
11/15/2016	180	
1/26/2017	120	
3/22/2017	110	
5/2/2017	140	
10/3/2017		170



Within Limit

Prediction Limit  
Intrawell Parametric

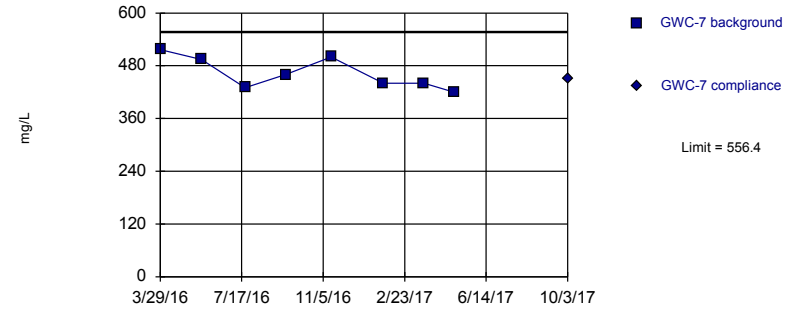


Background Data Summary: Mean=110.4, Std. Dev.=25.71, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9511, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

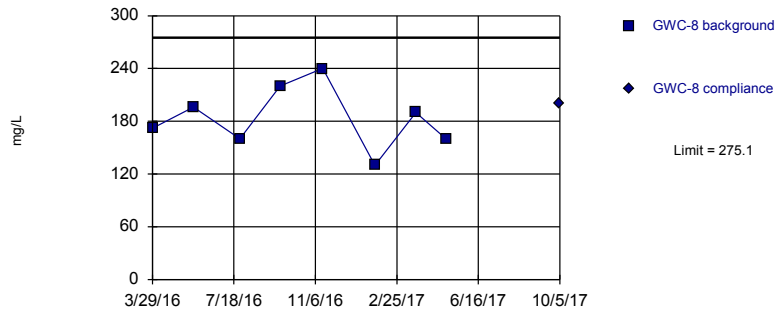


Background Data Summary: Mean=462.6, Std. Dev.=36.35, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9029, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

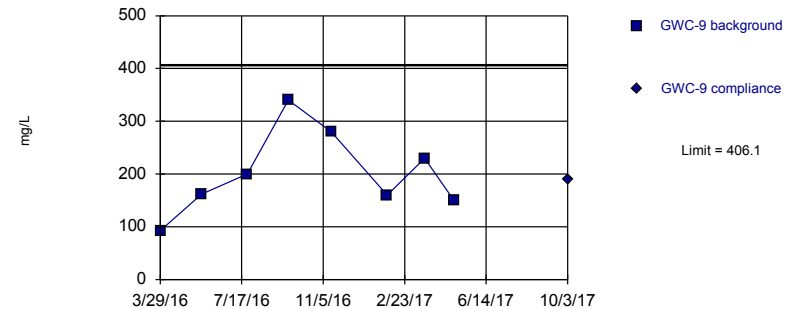


Background Data Summary: Mean=183.5, Std. Dev.=35.5, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.977, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=201.9, Std. Dev.=79.16, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9576, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-6	GWC-6
3/28/2016	92	
5/24/2016	115	
7/21/2016	120	
9/15/2016	130	
11/16/2016	150	
1/26/2017	74	
3/22/2017	120	
5/2/2017	82	
10/3/2017		100

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-7	GWC-7
3/29/2016	517	
5/24/2016	494	
7/22/2016	430	
9/15/2016	460	
11/16/2016	500	
1/26/2017	440	
3/22/2017	440	
5/2/2017	420	
10/3/2017		450

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-8	GWC-8
3/29/2016	172	
5/24/2016	196	
7/26/2016	160	
9/19/2016	220	
11/16/2016	240	
1/26/2017	130	
3/23/2017	190	
5/3/2017	160	
10/5/2017		200

# Prediction Limit

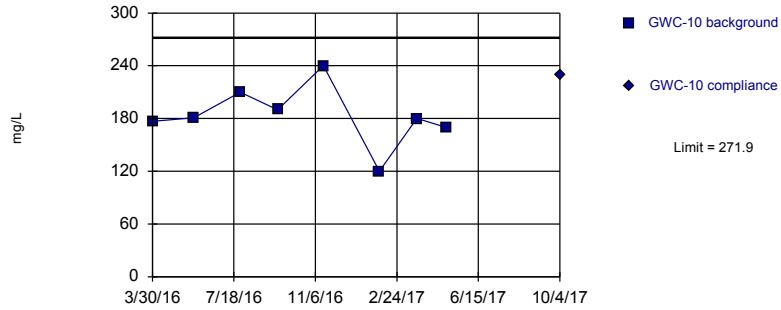
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-9	GWC-9
3/29/2016	93	
5/24/2016	162	
7/25/2016	200	
9/19/2016	340	
11/16/2016	280	
1/31/2017	160	
3/23/2017	230	
5/2/2017	150	
10/3/2017		190

Within Limit

Prediction Limit  
Intrawell Parametric

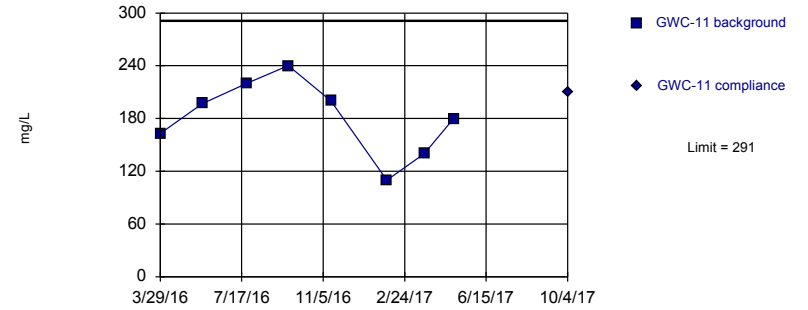


Background Data Summary: Mean=183.5, Std. Dev.=34.25, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9345, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

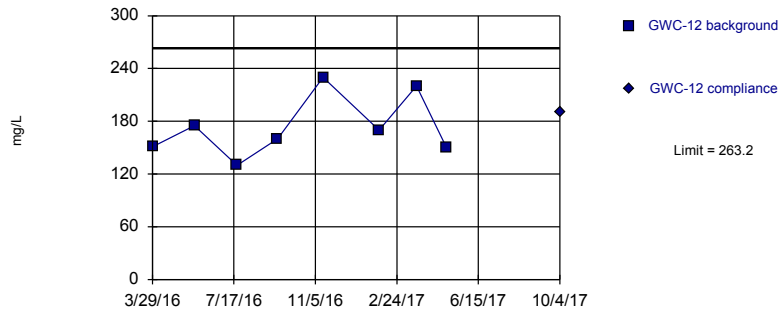


Background Data Summary: Mean=181.3, Std. Dev.=42.54, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9797, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

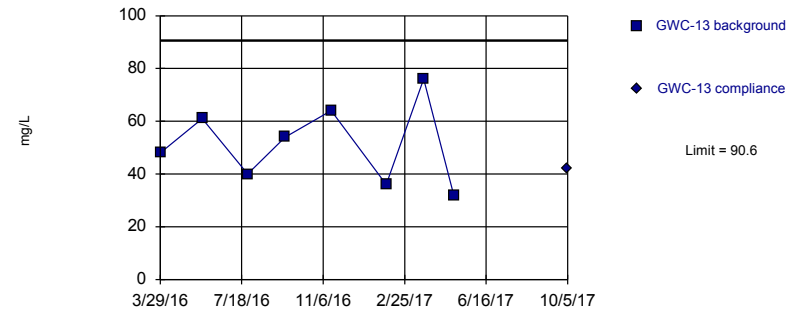


Background Data Summary: Mean=173.3, Std. Dev.=34.85, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8988, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=51.38, Std. Dev.=15.2, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9636, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-10	GWC-10
3/30/2016	177	
5/25/2016	181	
7/27/2016	210	
9/16/2016	190	
11/17/2016	240	
2/1/2017	120	
3/24/2017	180	
5/3/2017	170	
10/4/2017		230

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-11	GWC-11
3/29/2016	163	
5/25/2016	197	
7/25/2016	220	
9/19/2016	240	
11/16/2016	200	
1/31/2017	110	
3/23/2017	140	
5/2/2017	180	
10/4/2017		210



# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-12	GWC-12
3/29/2016	151	
5/25/2016	175	
7/22/2016	130	
9/15/2016	160	
11/16/2016	230	
1/31/2017	170	
3/23/2017	220	
5/3/2017	150	
10/4/2017		190

# Prediction Limit

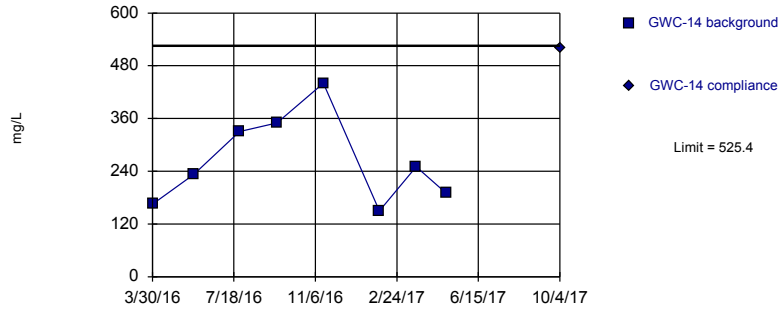
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-13	GWC-13
3/29/2016	48	
5/25/2016	61	
7/26/2016	40	
9/15/2016	54	
11/17/2016	64	
1/31/2017	36	
3/23/2017	76	
5/3/2017	32	
10/5/2017		42

Within Limit

### Prediction Limit Intrawell Parametric

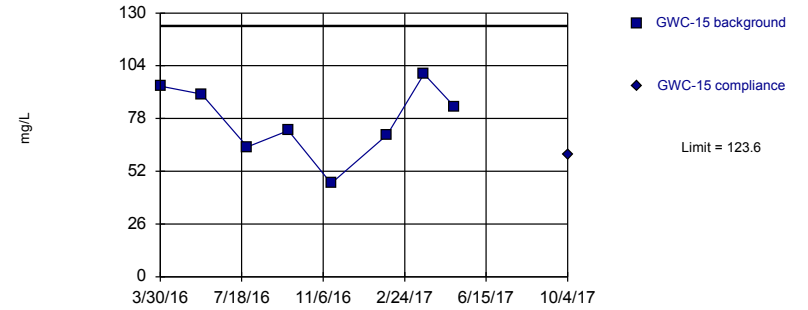


Background Data Summary: Mean=263.5, Std. Dev.=101.5, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9325, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

### Prediction Limit Intrawell Parametric

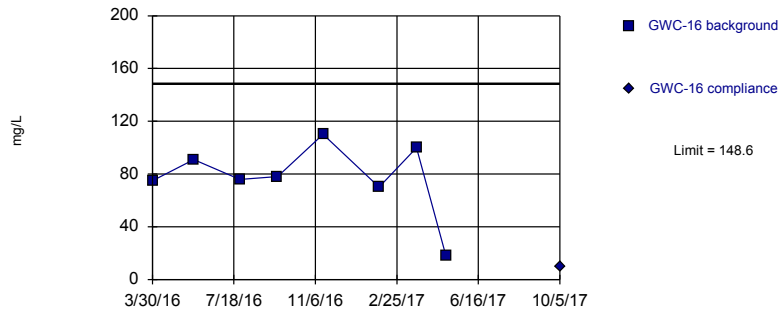


Background Data Summary: Mean=77.5, Std. Dev.=17.88, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9592, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

### Prediction Limit Intrawell Parametric

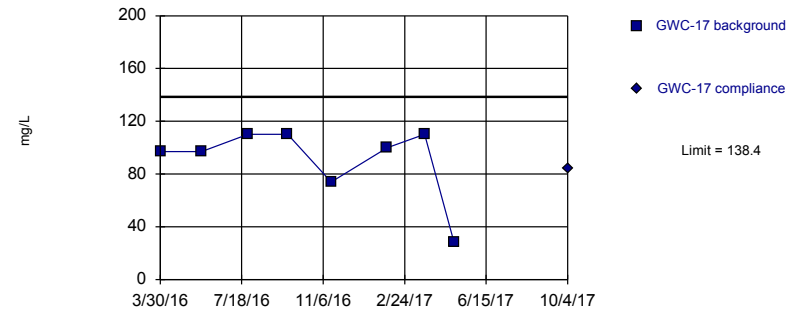


Background Data Summary: Mean=77.25, Std. Dev.=27.64, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8662, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary (based on square transformation): Mean=8922, Std. Dev.=3965, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8111, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-14	GWC-14
3/30/2016	165	
5/25/2016	233	
7/26/2016	330	
9/15/2016	350	
11/17/2016	440	
2/1/2017	150	
3/23/2017	250	
5/3/2017	190	
10/4/2017		520

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-15	GWC-15
3/30/2016	94	
5/25/2016	90	
7/26/2016	64	
9/20/2016	72	
11/17/2016	46	
2/1/2017	70	
3/23/2017	100	
5/3/2017	84	
10/4/2017		60

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-16	GWC-16
3/30/2016	75	
5/25/2016	91	
7/27/2016	76	
9/16/2016	78	
11/17/2016	110	
2/1/2017	70	
3/24/2017	100	
5/3/2017	18	
10/5/2017		10

# Prediction Limit

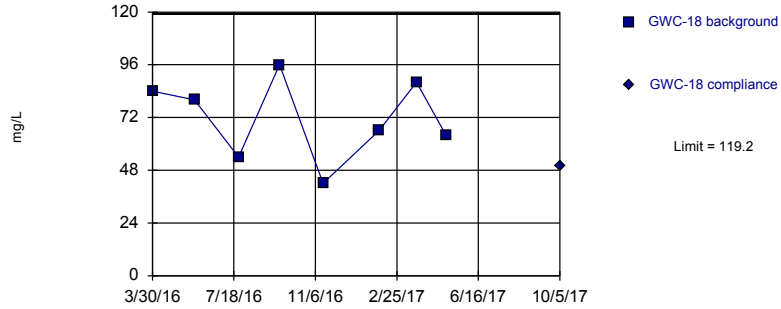
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-17	GWC-17
3/30/2016	97	
5/25/2016	97	
7/27/2016	110	
9/19/2016	110	
11/17/2016	74	
2/1/2017	100	
3/24/2017	110	
5/3/2017	28	
10/4/2017		84

Within Limit

Prediction Limit  
Intrawell Parametric

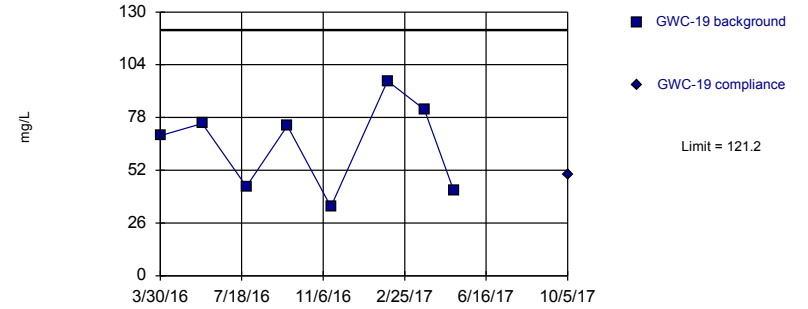


Background Data Summary: Mean=71.75, Std. Dev.=18.38, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9631, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

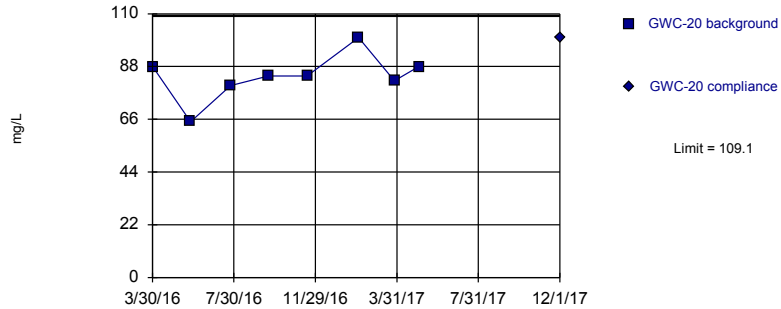


Background Data Summary: Mean=64.5, Std. Dev.=21.96, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9243, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

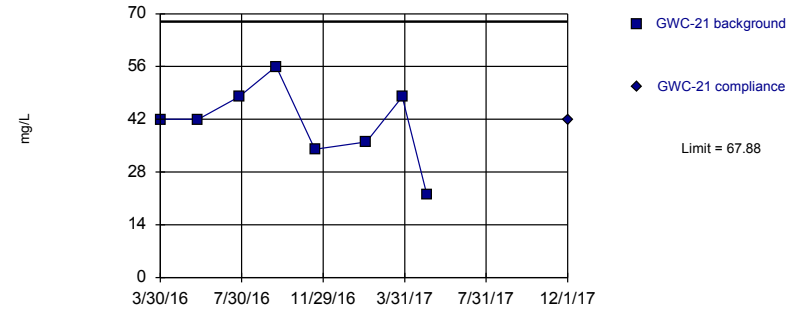


Background Data Summary: Mean=83.88, Std. Dev.=9.775, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9165, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=41, Std. Dev.=10.42, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9662, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126



# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-18	GWC-18
3/30/2016	84	
5/26/2016	80	
7/25/2016	54	
9/19/2016	96	
11/17/2016	42	
2/1/2017	66	
3/24/2017	88	
5/3/2017	64	
10/5/2017		50

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-19	GWC-19
3/30/2016	69	
5/26/2016	75	
7/25/2016	44	
9/19/2016	74	
11/17/2016	34	
2/2/2017	96	
3/24/2017	82	
5/3/2017	42	
10/5/2017		50

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-20	GWC-20
3/30/2016	88	
5/26/2016	65	
7/25/2016	80	
9/20/2016	84	
11/17/2016	84	
2/2/2017	100	
3/28/2017	82	
5/4/2017	88	
12/1/2017		100 (RD)

# Prediction Limit

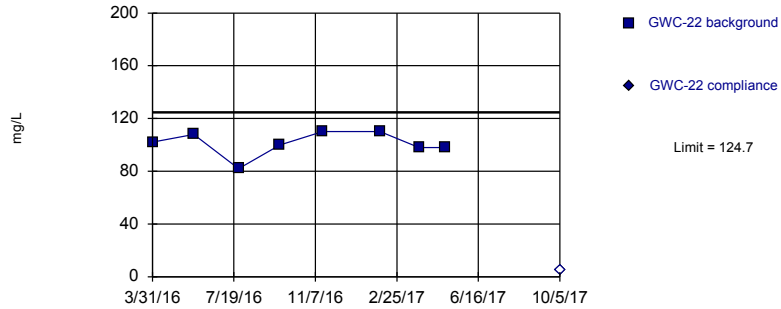
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-21	GWC-21
3/30/2016	42	
5/26/2016	42	
7/26/2016	48	
9/20/2016	56	
11/17/2016	34	
2/2/2017	36	
3/28/2017	48	
5/4/2017	22	
12/1/2017		42 (RD)

Within Limit

Prediction Limit  
Intrawell Parametric

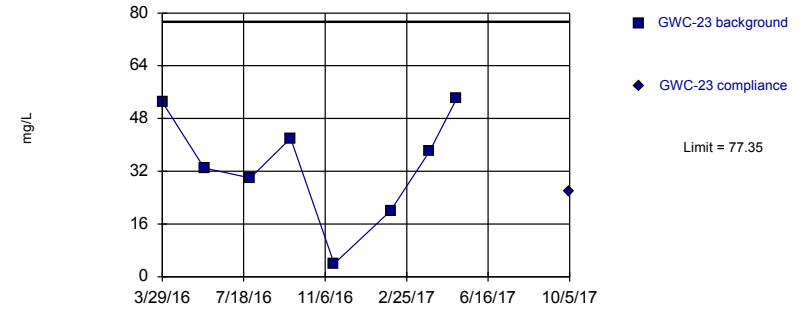


Background Data Summary: Mean=101, Std. Dev.=9.196, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8626, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

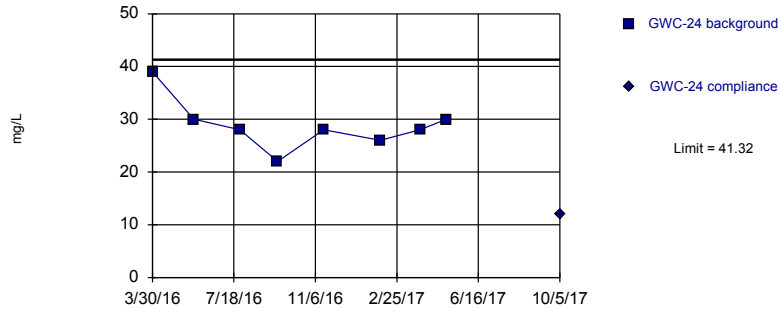


Background Data Summary: Mean=34.25, Std. Dev.=16.71, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

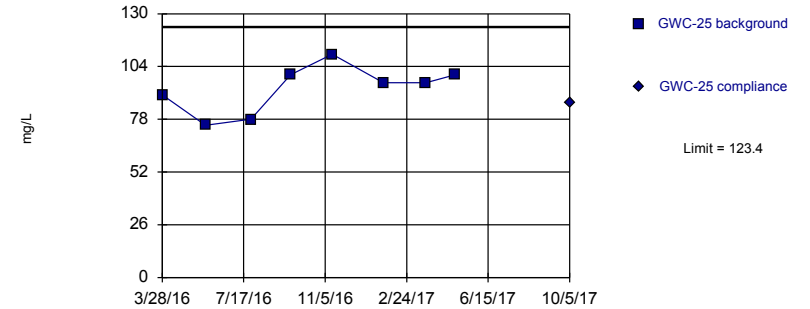


Background Data Summary: Mean=28.88, Std. Dev.=4.824, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8698, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=93.13, Std. Dev.=11.73, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9276, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-22	GWC-22
3/31/2016	102	
5/26/2016	108	
7/26/2016	82	
9/20/2016	100	
11/17/2016	110	
2/3/2017	110	
3/28/2017	98	
5/3/2017	98	
10/5/2017		<5

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-23	GWC-23
3/29/2016	53	
5/25/2016	33	
7/27/2016	30	
9/20/2016	42	
11/18/2016	4 (J)	
2/3/2017	20	
3/28/2017	38	
5/4/2017	54	
10/5/2017		26

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-24	GWC-24
3/30/2016	39	
5/25/2016	30	
7/27/2016	28	
9/16/2016	22	
11/18/2016	28	
2/3/2017	26	
3/29/2017	28	
5/4/2017	30	
10/5/2017		12



# Prediction Limit

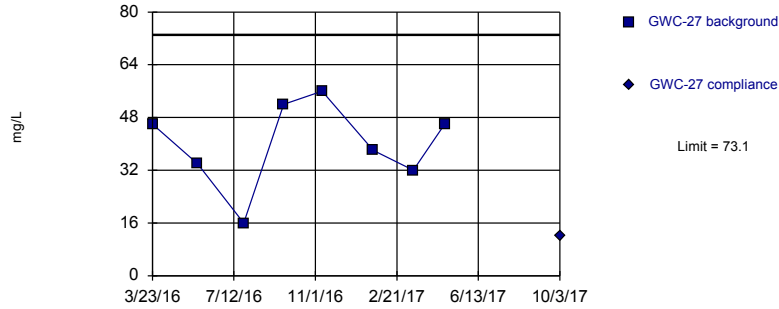
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-25	GWC-25
3/28/2016	90	
5/26/2016	75	
7/27/2016	78	
9/19/2016	100	
11/15/2016	110	
1/24/2017	96	
3/23/2017	96	
5/2/2017	100	
10/5/2017		86

Within Limit

Prediction Limit  
Intrawell Parametric

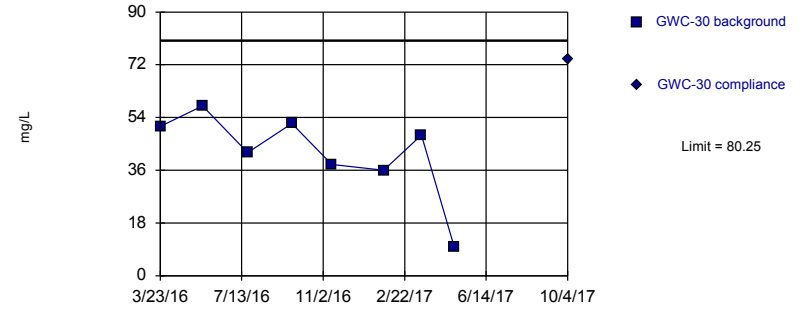


Background Data Summary: Mean=40, Std. Dev.=12.83, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

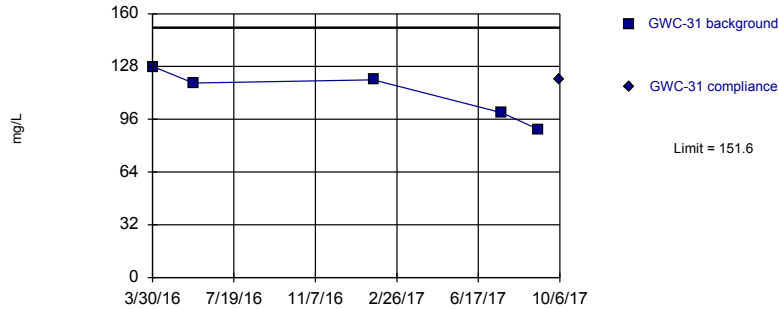


Background Data Summary: Mean=41.88, Std. Dev.=14.88, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8703, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

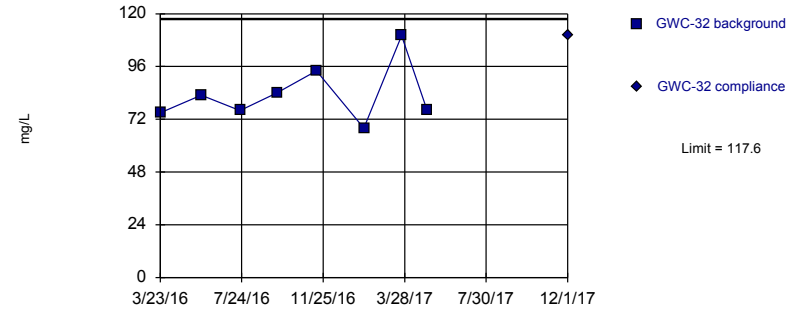


Background Data Summary: Mean=111.2, Std. Dev.=15.66, n=5. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9226, critical = 0.686. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=83.25, Std. Dev.=13.3, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8916, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-27	GWC-27
3/23/2016	46	
5/24/2016	34	
7/26/2016	16	
9/19/2016	52	
11/11/2016	56	
1/20/2017	38	
3/16/2017	32	
4/28/2017	46	
10/3/2017		12

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-30	GWC-30
3/23/2016	51	
5/20/2016	58	
7/21/2016	42	
9/20/2016	52	
11/14/2016	38	
1/24/2017	36	
3/17/2017	48	
5/1/2017	10	
10/4/2017		74

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-31	GWC-31
3/30/2016	128	
5/25/2016	118	
1/25/2017	120	
7/19/2017	100	
9/6/2017	90	
10/6/2017		120

# Prediction Limit

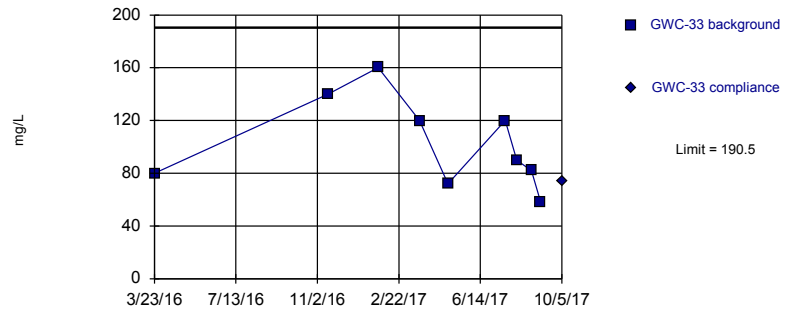
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-32	GWC-32
3/23/2016	75	
5/24/2016	83	
7/22/2016	76	
9/16/2016	84	
11/15/2016	94	
1/26/2017	68	
3/24/2017	110	
5/2/2017	76	
12/1/2017		110 (RD)

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=102.4, Std. Dev.=34.13, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9406, critical = 0.764. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:31 PM View: 3A. Intrawell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:32 PM View: 3A. IntraWell UPL - Group A  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-33	GWC-33
3/23/2016	80	
11/17/2016	140	
1/25/2017	160	
3/23/2017	120	
5/1/2017	72	
7/19/2017	120	
8/4/2017	90	
8/24/2017	82	
9/6/2017	58	
10/5/2017		74



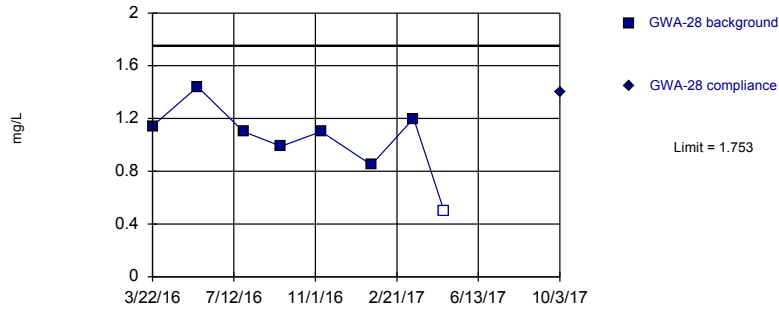
# Prediction Limit

Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126 Printed 1/26/2018, 4:54 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GWA-28	1.753	n/a	10/3/2017	1.4	No	8	12.5	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-26	76.33	n/a	10/4/2017	60	No	8	12.5	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-34	100.6	n/a	10/3/2017	16	No	8	12.5	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-35	74.38	n/a	10/3/2017	26	No	8	12.5	No	0.000...	Param Intra 1 of 3

Within Limit

Prediction Limit  
Intrawell Parametric

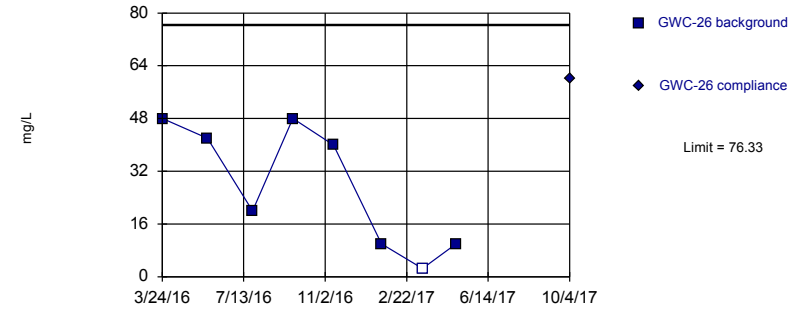


Background Data Summary: Mean=1.04, Std. Dev.=0.2761, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9348, critical = 0.749. Kappa overridden to 2.58.

Constituent: Sulfate Analysis Run 1/26/2018 4:53 PM View: 3B. Intrawell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

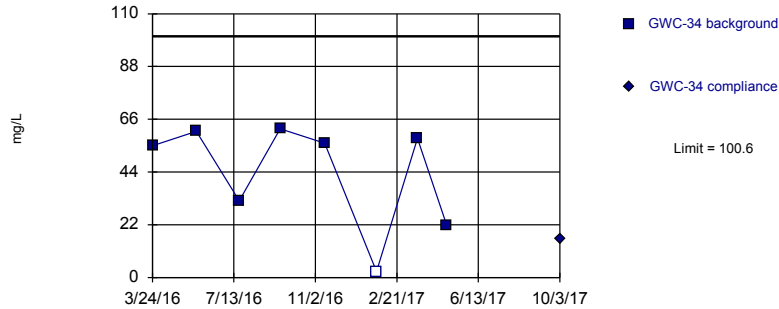


Background Data Summary: Mean=27.56, Std. Dev.=18.9, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8557, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:53 PM View: 3B. Intrawell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric

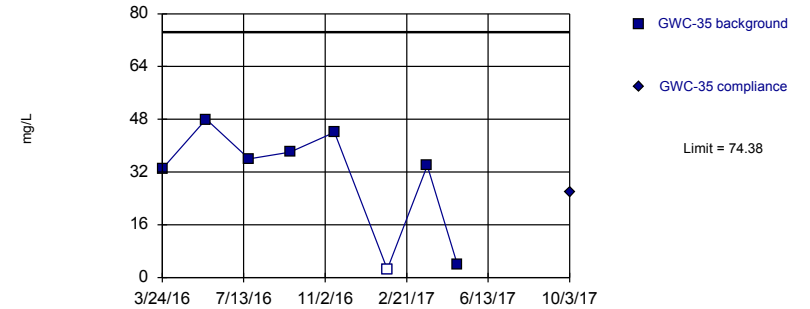


Background Data Summary: Mean=43.56, Std. Dev.=22.11, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8187, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:53 PM View: 3B. Intrawell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=29.94, Std. Dev.=17.23, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8162, critical = 0.749. Kappa overridden to 2.58.

Constituent: Total Dissolved Solids Analysis Run 1/26/2018 4:53 PM View: 3B. Intrawell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:54 PM View: 3B. IntraWell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWA-28	GWA-28
3/22/2016	1.1423	
5/23/2016	1.44	
7/25/2016	1.1	
9/15/2016	0.99 (J)	
11/9/2016	1.1	
1/17/2017	0.85 (J)	
3/16/2017	1.2	
4/27/2017	<1	
10/3/2017		1.4

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:54 PM View: 3B. Intrawell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-26	GWC-26
3/24/2016	48	
5/25/2016	42	
7/26/2016	20	
9/19/2016	48	
11/14/2016	40	
1/19/2017	10	
3/16/2017	<5	
5/1/2017	10	
10/4/2017		60

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:54 PM View: 3B. IntraWell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-34	GWC-34
3/24/2016	55	
5/23/2016	61	
7/21/2016	32	
9/15/2016	62	
11/15/2016	56	
1/25/2017	<5	
3/22/2017	58	
5/1/2017	22	
10/3/2017		16

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/26/2018 4:54 PM View: 3B. IntraWell UPL - Group B  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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	GWC-35	GWC-35
3/24/2016	33	
5/23/2016	48	
7/21/2016	36	
9/15/2016	38	
11/15/2016	44	
1/26/2017	<5	
3/22/2017	34	
5/2/2017	4 (J)	
10/3/2017		26

# Summary Report

Constituent: Sulfate (mg/L) Analysis Run 1/26/2018 4:38 PM View: 4, Double Quantification  
Plant Wansley Client: Southern Company Data: CCR\_WansleyLF\_20180126

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GWA-1 (bg)

3/23/2016	<1
5/20/2016	<1
7/21/2016	<1
9/15/2016	<1
11/11/2016	<1
1/19/2017	<1
3/16/2017	<1
4/28/2017	<1
10/4/2017	<1