

Georgia Power Company  
Plant Wansley CCR Landfill  
PERMIT #: 074-005D(LI)  
Heard County

2018 ANNUAL GROUNDWATER MONITORING  
AND CORRECTIVE ACTION REPORT



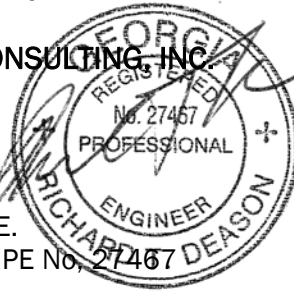
ATLANTIC COAST  
CONSULTING, INC.

## CERTIFICATION STATEMENT

This 2018 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company – Plant Wansley CCR Landfill has been prepared in accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 under the supervision of a licensed professional engineer with:

**ATLANTIC COAST CONSULTING, INC.**

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01/31/2019





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## 1.0 INTRODUCTION

In accordance with the US EPA Coal Combustion Residuals (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2018 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Wansley CCR Landfill (the Site). Semi-annual monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements of 40 CFR §257.90 through §257.95 of the Federal CCR rule, and Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a).

### 1.1 Site Description and Background

Plant Wansley is located in northeast Heard County and southeast Carroll County, Georgia, at 1371 Liberty Church Road, 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 site is located onsite south of the plant. The site is composed of three cells within an approximate 73-acre disposal footprint.

### 1.2 Regional Geology and Hydrogeologic Setting

The site 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.

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.

### 1.3 Groundwater Monitoring Well Network

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

## **2.0 GROUNDWATER MONITORING ACTIVITIES**

As required by §257.90(e), the following describes monitoring-related activities performed during the preceding year. All groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the monitoring system shown on Figure 2, Well Location Map.

Pursuant to §257.90(e)(3), Table 2, Groundwater Sampling Event Summary for 2018, presents a summary of groundwater sampling events completed at the site.

### **2.1 Monitoring Well Installation and Maintenance**

There was no change to the groundwater monitoring system in 2018; the network remained the same as in the 2017 (previous) reporting year. Monitoring well-related activities were limited to the following: Visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.

### **2.2 Alternate Source Demonstrations**

There were statistically significant increases (SSIs) above background identified in the 2017 Groundwater Monitoring and Corrective Action Report. In accordance with §257.94(e)(2), an alternate source demonstration (ASD) was prepared and placed into the operating record on April 16, 2018 in response to the 2017 SSIs. As discussed in the following sections of this report, two additional SSIs above background levels were documented during the current year. These results are also addressed by an ASD. The ASDs for 2017 and 2018 are provided in Appendix A, Alternate Source Demonstrations.

### **2.3 Detection Monitoring**

In accordance with §257.94(a), groundwater samples were collected during 2018 from each monitoring well and analyzed for Appendix III constituents. The two sampling events which occurred in 2018 are the second and third detection monitoring events. Pursuant to §257.90(e)(3), data reports for the 2018 sampling events are included in Appendix B, Laboratory Analytical and Field Sampling Reports.

## **3.0 SAMPLE METHODOLOGY & ANALYSIS**

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

### **3.1 Groundwater Elevation Measurement**

Prior to each sampling event, groundwater elevations were recorded from each well in the network at the site. Groundwater elevations recorded during the background and detection monitoring events are summarized in Tables 3A and 3B, Summary of Groundwater Elevations – June 2018 and September 2018, respectively. Groundwater elevation data was used to develop potentiometric surface elevation contour maps (Figure 3, Potentiometric Surface Contour Map – June 2018 and Figure 4, Potentiometric Surface Contour Map – September 2018). The general direction of groundwater flow across the site is to the east. The groundwater flow patterns observed during the 2018 detection monitoring events are consistent with historical patterns.

### 3.2 Groundwater Gradient and Flow Velocity

The groundwater flow velocity at the site was calculated using a derivation of Darcy's Law. Specifically:

#### Equation

$$v = \frac{k ( dh/dl )}{P_e} \quad \text{where:}$$

$v$  = ground water velocity  
 $k$  = hydraulic conductivity  
 $dh/dl$  = hydraulic gradient  
 $P_e$  = effective porosity

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average permeability based on previous slug test data, and an estimated effective porosity of 0.25 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). Groundwater flow velocities have been calculated and are tabulated on Tables 4A and 4B, Groundwater Flow Velocity Calculations – June 2018 and September 2018, respectively. The calculated flow velocity was approximately 0.19 feet per day during both 2018 monitoring events.

### 3.3 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a). Analytical data collected in respective 2018 monitoring events are summarized in Tables 5A and 5B, Summary of Groundwater Analytical Data – June 2018 and September 2018, respectively. Purging and sampling was performed using bladder pumps and peristaltic pumps. For wells without dedicated 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 4 US EPA Science and Ecosystem Support System (SESD) Operating Procedure for Field Equipment Cleaning and Decontamination as a guide.

Monitoring wells were purged and sampled using low-flow sampling procedures. Prior to sampling, during well purging, the following field monitoring parameters are periodically recorded: water level, pH (field), conductivity, temperature, oxidation/reduction potential (ORP), dissolved oxygen (DO), and total purge volume. Wells are purged until indicator parameters are stable within limits shown below. Once the wells have been purged, and indicator parameters are stable, samples are collected in laboratory-supplied containers.

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

- $\pm 0.1$  standard units for pH
- $\pm 5\%$  for specific conductance
- $\pm 0.2$  milligrams per liter (mg/L) or 10% for DO greater than 0.5 mg/L (whichever is greater). No criterion applies if DO is less than 0.5 mg/L
- Turbidity measurements less than 10 nephelometric turbidity units (NTU)

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

During the June 2018 sampling event, all wells were sampled. During the September 2018 sampling event, GWA-3 purged dry and did not sufficiently recover to allow for sampling; all other network wells were sampled.

### **3.4 Laboratory Analyses**

Groundwater samples were collected for Appendix III parameters during monitoring events performed in 2018. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix B.

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

### **3.5 Quality Assurance and Quality Control**

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

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

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

## **4.0 STATISTICAL ANALYSIS**

Statistical analysis of Appendix III groundwater monitoring data was performed pursuant to §257.93 and according to the PE-certified statistical method for the site.

### **4.1 Statistical Methods**

Groundwater quality data are evaluated through use of interwell prediction limits, combined with a 1-of-2 resampling strategy, for parameters boron, calcium, chloride, and fluoride. Using this method, upgradient well data are pooled to establish a background statistical limit. Data from the 2018 detection monitoring events were compared to the statistical limit to determine whether any concentrations exceed background levels. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier.

For the parameters pH, sulfate, and total dissolved solids (TDS), groundwater quality data are evaluated through use of intrawell prediction limits, combined with the 1-of-3 resampling strategy. Using this method, background data from the parameter are used to establish a background statistical limit for that parameter at that well; therefore, each parameter will have a different statistical limit at each well. Data from the 2018 detection monitoring events were compared to the statistical limit to determine whether any concentrations exceed background levels. When an SSI or questionable result occurs, an additional sample may be collected to verify the initial result or determine if the result was an outlier.

If the initial finding is not verified by resampling, the resampled value will replace the initial finding. When the resample(s) confirms the initial finding, the exceedance will be reported.

The following are also applicable to the site statistical analysis method:

- Statistical analyses are not performed on analytes containing 100% non-detects (US EPA Unified Guidance, 2009, Chapter 6).
- When data contain less than 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 the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

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 US EPA regulations and guidance as recommended in the Unified Guidance (US EPA, 2009) document.

## 4.2 Statistical Analysis Results

Analytical data were statistically analyzed in accordance with the PE-certified statistical methods. The statistical analysis and comparison to prediction limits are included as Appendix C, Statistical Analyses.

Based on the statistical results presented in Appendix C, the following summarizes parameters exhibiting SSIs as follows:

- Boron: GWC-9 and GWC-14
- Chloride: GWC-14
- pH: GWC-10 and GWC-18
- TDS: GWC-23

The SSIs for boron and chloride are consistent with the 2017 monitoring results and have been documented by an ASD completed in April 2018, Appendix A – Alternate Source Demonstrations. The SSIs for pH and TDS are included in a second ASD dated January 2018 included in Appendix A.



## 5.0 MONITORING PROGRAM STATUS

The site groundwater monitoring network is in detection monitoring. SSIs of Appendix III parameters, have been addressed by ASDs.

## 6.0 CONCLUSIONS & FUTURE ACTIONS

The site will continue semi-annual detection monitoring. Appendix III parameters at SSI levels have been addressed by ASDs. The next semi-annual monitoring event is planned for the first half of 2019.

## 7.0 REFERENCES

Atlantic Coast Consulting, Inc. (ACC), *Alternate Source Demonstration –Plant Wansley CCR Landfill*, April 2018.

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U.S. EPA Waste Management Division Office of Solid Waste, 1989, EPA 530/SW89-031 Interim Final RCRA Investigation (RFI) Guidance, Volume II or IV.

U.S. EPA, 2009, *Unified Guidance*, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Office of Solid Waste Management Division, U.S. EPA, Washington, D.C.

U.S. EPA, 2013, Groundwater Sampling – Operating Procedure: SESDPROC-3-1-R3, Athens, Georgia, 31 p.

U.S. EPA, 2015, Field Equipment Cleaning and Decontamination – Operating Procedure: SESDPROC-205-R3, Athens, Georgia, 18 p.



## TABLES

**Table 1**  
**Groundwater Monitoring Network Well Construction Details**

Well	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (ft MSL)	Purpose
GWA-1	03/03/2011	49.85	728.15	39.85	738.15	Upgradient
GWA-2	03/03/2011	60.07	755.93	50.07	765.93	Upgradient
GWA-3	03/03/2011	31.16	758.82	21.16	768.82	Upgradient
GWA-4	02/11/2011	40.61	738.78	30.61	748.78	Upgradient
GWC-5	02/10/2011	40.68	714.92	30.68	724.92	Downgradient
GWC-6	02/10/2011	31.08	718.70	21.08	728.70	Downgradient
GWC-7	02/10/2011	25.90	705.07	15.90	715.07	Downgradient
GWC-8	02/22/2011	20.03	703.27	10.03	713.27	Downgradient
GWC-9	02/23/2011	19.41	693.15	9.41	703.15	Downgradient
GWC-10	07/12/2011	22.00	687.47	12.00	697.47	Downgradient
GWC-11	02/23/2011	18.23	682.73	8.23	692.73	Downgradient
GWC-12	02/24/2011	40.63	683.59	30.63	693.59	Downgradient
GWC-13	02/28/2011	90.42	603.33	80.42	613.33	Downgradient
GWC-14	06/28/2011	24.55	668.26	14.55	678.26	Downgradient
GWC-15	02/28/2011	51.06	636.51	41.06	646.51	Downgradient
GWC-16	06/28/2011	26.97	663.15	16.97	673.15	Downgradient
GWC-17	06/28/2011	53.34	651.00	43.34	661.00	Downgradient
GWC-18	03/01/2011	30.51	669.69	20.51	679.69	Downgradient
GWC-19	07/13/2011	38.56	662.30	28.56	672.30	Downgradient
GWC-20	03/01/2011	71.08	634.55	61.08	644.55	Downgradient
GWC-21	07/12/2011	38.30	682.77	28.30	692.77	Downgradient
GWC-22	03/02/2011	77.15	666.99	67.15	676.99	Downgradient
GWC-23	03/02/2011	68.05	705.42	58.05	715.42	Downgradient
GWC-24	02/15/2011	51.05	738.93	41.05	748.93	Downgradient
GWC-25	02/15/2011	61.23	750.88	51.23	760.88	Downgradient
GWC-26	02/16/2011	59.43	725.99	49.43	735.99	Downgradient
GWC-27	02/16/2011	70.83	743.24	60.83	753.24	Downgradient
GWA-28	02/22/2011	45.78	803.25	35.78	813.25	Upgradient
GWA-29	06/27/2011	57.13	777.57	47.13	787.57	Upgradient
GWC-30	02/17/2011	49.58	741.45	39.58	751.45	Downgradient
GWC-31	06/21/2011	38.02	759.52	28.02	769.52	Downgradient
GWC-32	02/18/2011	31.05	754.17	21.05	764.17	Downgradient
GWC-33	02/18/2011	23.99	736.04	13.99	746.04	Downgradient
GWC-34	02/21/11	51.25	683.84	41.25	693.84	Downgradient
GWC-35	02/08/2011	40.78	690.11	30.78	700.11	Downgradient

Notes:

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

**Table 2**  
**Groundwater Sampling Event Summary for 2018**

Well	Hydraulic Location	June 19-27, 2018	Sept. 25 - Oct. 3, 2018	
Purpose of Sampling Event		Detection Event	Detection Event	Verification
GWA-1	Upgradient	D-02	D-03	
GWA-2	Upgradient	D-02	D-03	
GWA-3	Upgradient	D-02	D-03	
GWA-4	Upgradient	D-02	D-03	
GWC-5	Downgradient	D-02	D-03	
GWC-6	Downgradient	D-02	D-03	
GWC-7	Downgradient	D-02	D-03	
GWC-8	Downgradient	D-02	D-03	
GWC-9	Downgradient	D-02	D-03	
GWC-10	Downgradient	D-02	D-03	
GWC-11	Downgradient	D-02	D-03	
GWC-12	Downgradient	D-02	D-03	
GWC-13	Downgradient	D-02	D-03	
GWC-14	Downgradient	D-02	D-03	
GWC-15	Downgradient	D-02	D-03	
GWC-16	Downgradient	D-02	D-03	
GWC-17	Downgradient	D-02	D-03	
GWC-18	Downgradient	D-02	D-03	
GWC-19	Downgradient	D-02	D-03	
GWC-20	Downgradient	D-02	D-03	
GWC-21	Downgradient	D-02	D-03	
GWC-22	Downgradient	D-02	D-03	
GWC-23	Downgradient	D-02	D-03	
GWC-24	Downgradient	D-02	D-03	
GWC-25	Downgradient	D-02	D-03	
GWC-26	Downgradient	D-02	D-03	
GWC-27	Downgradient	D-02	D-03	
GWA-28	Upgradient	D-02	D-03	
GWA-29	Upgradient	D-02	D-03	
GWC-30	Downgradient	D-02	D-03	
GWC-31	Downgradient	D-02	D-03	
GWC-32	Downgradient	D-02	D-03	
GWC-33	Downgradient	D-02	D-03	
GWC-34	Downgradient	D-02	D-03	
GWC-35	Downgradient	D-02	D-03	

Notes:

1. ft D-XX = Detection Event Number
2. D-01 was performed in 2017

**Table 3A**  
**Summary of Groundwater Elevations**  
**June 2018**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
GWA-1	778.00	20.46	757.54
GWA-2	816.00	42.08	773.92
GWA-3	789.98	22.81	767.17
GWA-4	779.39	23.08	756.31
GWC-5	755.60	17.16	738.44
GWC-6	749.78	17.78	732.00
GWC-7	730.97	8.38	722.59
GWC-8	723.30	9.84	713.46
GWC-9	712.56	7.77	704.79
GWC-10	709.47	12.03	697.44
GWC-11	700.96	6.81	694.15
GWC-12	724.22	26.63	697.59
GWC-13	693.75	6.36	687.39
GWC-14	692.81	8.83	683.98
GWC-15	687.57	6.54	681.03
GWC-16	690.12	11.11	679.01
GWC-17	704.34	20.50	683.84
GWC-18	700.20	14.20	686.00
GWC-19	700.86	8.95	691.91
GWC-20	705.63	6.60	699.03
GWC-21	721.07	15.04	706.03
GWC-22	744.14	25.21	718.93
GWC-23	773.47	35.28	738.19
GWC-24	789.98	41.53	748.45
GWC-25	812.11	48.99	763.12
GWC-26	785.42	29.52	755.90
GWC-27	814.07	42.67	771.40
GWA-28	849.03	24.66	824.37
GWA-29	834.70	43.13	791.57
GWC-30	791.03	25.96	765.07
GWC-31	797.54	31.58	765.96
GWC-32	785.22	25.05	760.17
GWC-33	760.03	13.80	746.23
GWC-34	735.09	8.49	726.60
GWC-35	730.89	8.48	722.41

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Depths to water measured June 18, 2018.

**Table 3B**  
**Summary of Groundwater Elevations**  
**September 2018**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
GWA-1	778.00	23.80	754.20
GWA-2	816.00	45.53	770.47
GWA-3	789.98	26.80	763.18
GWA-4	779.39	26.29	753.10
GWC-5	755.60	20.94	734.66
GWC-6	749.78	20.50	729.28
GWC-7	730.97	9.84	721.13
GWC-8	723.30	11.20	712.10
GWC-9	712.56	8.98	703.58
GWC-10	709.47	13.35	696.12
GWC-11	700.96	8.35	692.61
GWC-12	724.22	27.60	696.62
GWC-13	693.75	7.82	685.93
GWC-14	692.81	11.10	681.71
GWC-15	687.57	8.39	679.18
GWC-16	690.12	13.02	677.10
GWC-17	704.34	23.02	681.32
GWC-18	700.20	17.71	682.49
GWC-19	700.86	8.43	692.43
GWC-20	705.63	6.75	698.88
GWC-21	721.07	16.80	704.27
GWC-22	744.14	27.04	717.10
GWC-23	773.47	37.70	735.77
GWC-24	789.98	44.85	745.13
GWC-25	812.11	50.92	761.19
GWC-26	785.42	31.68	753.74
GWC-27	814.07	61.22	752.85
GWA-28	849.03	25.61	823.42
GWA-29	834.70	47.53	787.17
GWC-30	791.03	28.88	762.15
GWC-31	797.54	34.79	762.75
GWC-32	785.22	26.59	758.63
GWC-33	760.03	14.70	745.33
GWC-34	735.09	6.10	728.99
GWC-35	730.89	9.71	721.18

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Depths to water measured September 25, 2018.

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 PROJECT NAME: Plant Wansley LF BY: MM DATE: November 2018  
 SUBJECT: Plant Wansley LF CHK'D: EP DATE: December 2018

**TABLE 4A**  
**Groundwater Flow Velocity Calculation**  
**June 2018**

Equation

$$v = \frac{k(i)}{P_e}$$

where: v = ground water velocity  
 k = hydraulic conductivity  
 i = hydraulic gradient  
 P<sub>e</sub> = effective porosity

Values Used in Calculation

Value			Source
k =	4.1E-04 1.16	cm/sec ft/day	See note 1.
i <sub>1</sub> =	0.041	unitless	from GWA-4 to GWC-5 from GWA-1 to GWC-19 from GWA-2 to GWC-16
i <sub>2</sub> =	0.045	unitless	
i <sub>3</sub> =	0.037	unitless	
i =	0.041	unitless	Average (i <sub>1</sub> , i <sub>2</sub> , i <sub>3</sub> )
P <sub>e</sub> =	0.25	unitless	See note 1.

Calculation

$$v = \frac{(1.16)(0.041)}{0.10} \quad v = 0.19 \text{ ft/day}$$

Notes

(1) Plant Wansley Proposed Combustion By-Product Disposal Facility -  
 Site Acceptability Report

PROJECT NUMBER: I054-110 PAGE: 1 OF 1  
 PROJECT NAME: Plant Wansley LF BY: MM DATE: November 2018  
 SUBJECT: Plant Wansley LF CHK'D: EP DATE: December 2018

**TABLE 4B**  
**Groundwater Flow Velocity Calculation**  
**September 2018**

Equation

$$v = \frac{k(i)}{P_e}$$

where: v = ground water velocity  
 k = hydraulic conductivity  
 i = hydraulic gradient  
 P<sub>e</sub> = effective porosity

Values Used in Calculation

Value			Source
k =	4.1E-04 1.16	cm/sec ft/day	See note 1.
i <sub>1</sub> =	0.042	unitless	from GWA-4 to GWC-5 from GWA-1 to GWC-19 from GWA-2 to GWC-16
i <sub>2</sub> =	0.042	unitless	
i <sub>3</sub> =	0.036	unitless	
i =	0.040	unitless	Average (i <sub>1</sub> , i <sub>2</sub> , i <sub>3</sub> )
P <sub>e</sub> =	0.25	unitless	See note 1.

Calculation

$$v = \frac{(1.16)(0.04)}{0.10} \quad v = 0.19 \text{ ft/day}$$

Notes

(1) Plant Wansley Proposed Combustion By-Product Disposal Facility -  
 Site Acceptability Report

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**June 2018**

Substance	MCL/ (SMCL)	GWA-1	GWA-2	GWA-3	GWA-4	GWC-5	GWC-6	GWC-7	GWC-8	
		6/19/2018	6/19/2018	6/20/2018	6/19/2018	6/25/2018	6/25/2018	6/25/2018	6/21/2018	
<b>Appendix III</b>	<b>Boron</b>	N/R	ND	ND	ND	ND	ND	ND	ND	
	<b>Calcium</b>	N/R	0.75	3.4	43	26	35	12	54	29
	<b>Chloride</b>	(250)	1.7	3.6	12	12	12	5.5	19	4.5
	<b>Fluoride</b>	4	ND	ND	ND	ND (0.084 J)	ND (0.097 J)	ND	0.25	ND
	<b>Sulfate</b>	(250)	ND	1.0	100	10	30	11	62	11
	<b>TDS</b>	(500)	16	ND	230	160	200	110	400	210

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such a low level that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.



**Table 5A**  
**Summary of Groundwater Analytical Data**  
**June 2018**

Substance	MCL/ (SMCL)	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16	
		6/21/2018	6/21/2018	6/20/2018	6/26/2018	6/20/2018	6/20/2018	6/20/2018	6/20/2018	
<b>Appendix III</b>	<b>Boron</b>	N/R	0.070	ND	ND	ND (0.024 J)	ND	1.2	ND	ND
	<b>Calcium</b>	N/R	13	13	13	38	4.0	45	11	6.9
	<b>Chloride</b>	(250)	4.5	4.6	3.1	20	1.2	150	3.4	1.3
	<b>Fluoride</b>	4	ND	0.76	ND (0.13 J)	ND (0.18 J)	ND (0.11 J)	ND	ND (0.093 J)	ND
	<b>Sulfate</b>	(250)	13	21	ND	23	2.5	18	2.1	ND
	<b>TDS</b>	(500)	150	32	140	200	12	310	64	84

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory 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, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**June 2018**

	Substance	MCL/ (SMCL)	GWC-17	GWC-18	GWC-19	GWC-20	GWC-21	GWC-22	GWC-23	GWC-24
			6/26/2018	6/21/2018	6/21/2018	6/21/2018	6/20/2018	6/20/2018	6/20/2018	6/27/2018
<b>Appendix III</b>	<b>Boron</b>	<b>N/R</b>	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Calcium</b>	<b>N/R</b>	7.7	6.4	7.3	8.6	3.6	10	3.4	0.38
	<b>Chloride</b>	<b>(250)</b>	1.1	1.5	1.6	1.9	3.5	1.5	1.9	3.8
	<b>Fluoride</b>	<b>4</b>	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Sulfate</b>	<b>(250)</b>	ND	ND	ND	1.3	ND	ND	ND	ND
	<b>TDS</b>	<b>(500)</b>	72	84	76	78	36	94	54	24

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such a low level that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**June 2018**

Substance	MCL/ (SMCL)	GWC-25	GWC-26	GWC-27	GWA-28	GWA-29	GWC-30	GWC-31	GWC-32	
		6/27/2018	6/27/2018	6/27/2018	6/19/2018	6/19/2018	6/21/2018	6/27/2018	6/26/2018	
<b>Appendix III</b>	<b>Boron</b>	N/R	ND	ND	ND	ND	ND	ND	ND	
	<b>Calcium</b>	N/R	8.5	1.7	2.4	2.5	4.1	3.3	9.6	7.1
	<b>Chloride</b>	(250)	5.2	2.8	ND (0.92 J)	1.2	1.2	1.2	1.5	ND (0.89 J)
	<b>Fluoride</b>	4	ND	ND	0.73	1.6	2.3	ND	1.6	2.6
	<b>Sulfate</b>	(250)	12	ND	1.7	ND (0.94 J)	7.0	1.0	14	12
	<b>TDS</b>	(500)	60	8.0	54	70	66	28	92	66

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such a low level that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**June 2018**

	Substance	MCL/ (SMCL)	GWC-33	GWC-34	GWC-35
			6/26/2018	6/20/2018	6/19/2018
<b>Appendix III</b>	Boron	N/R	ND	ND	ND
	Calcium	N/R	13	3.2	2.0
	Chloride	(250)	2.0	1.1	3.4
	Fluoride	4	2.1	ND (0.18 J)	ND
	Sulfate	(250)	9.2	1.7	2.7
	TDS	(500)	100	ND	28

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such a low level that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5B**  
**Summary of Groundwater Analytical Data**  
**September 2018**

Substance	MCL/ (SMCL)	GWA-1	GWA-2	GWA-3	GWA-4	GWC-5	GWC-6	GWC-7	GWC-8	
		9/25/2018	9/25/2018	9/25/2018	9/25/2018	10/3/2018	9/25/2018	10/2/2018	9/26/2018	
<b>Appendix III</b>	<b>Boron</b>	N/R	ND	ND	NS	ND	ND	ND	ND	
	<b>Calcium</b>	N/R	0.73	4.0	NS	29	32	15	52	34
	<b>Chloride</b>	(250)	1.7	4.9	NS	17	17	6.3	19	5.4
	<b>Fluoride</b>	4	ND	ND	NS	ND	ND (0.13 J)	ND	0.25	ND
	<b>Sulfate</b>	(250)	ND	ND (0.78 J)	NS	9.7	29	14	60	20
	<b>TDS</b>	(500)	24	32	NS	130	230	120	440	180

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such a low level that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5B**  
**Summary of Groundwater Analytical Data**  
**September 2018**

Substance	MCL/ (SMCL)	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16	
		9/26/2018	9/27/2018	9/27/2018	9/28/2018	10/2/2018	10/1/2018	10/1/2018	10/1/2018	
<b>Appendix III</b>	<b>Boron</b>	N/R	0.14	ND	ND	ND	ND	0.57	ND (0.030 J)	ND
	<b>Calcium</b>	N/R	18	13	9.0	46	4.2	22	8.0	7.0
	<b>Chloride</b>	(250)	19	5.4	3.3	21	1.3	74	4.3	1.4
	<b>Fluoride</b>	4	ND (0.082 J)	0.59	ND (0.12 J)	0.20	ND (0.13 J)	ND (0.083 J)	ND (0.10 J)	ND
	<b>Sulfate</b>	(250)	17	28	ND	24	2.7	11	1.4	ND
	<b>TDS</b>	(500)	130	200	130	180	72	250	94	86

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
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6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5B**  
**Summary of Groundwater Analytical Data**  
**September 2018**

	Substance	MCL/ (SMCL)	GWC-17	GWC-18	GWC-19	GWC-20	GWC-21	GWC-22	GWC-23	GWC-24
			10/2/2018	9/28/2018	9/27/2018	9/27/2018	9/27/2018	10/1/2018	10/1/2018	9/28/2018
<b>Appendix III</b>	<b>Boron</b>	<b>N/R</b>	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Calcium</b>	<b>N/R</b>	8.2	6.9	5.9	9.8	4.6	10	3.6	0.81
	<b>Chloride</b>	<b>(250)</b>	1.2	1.6	1.3	1.8	3.1	1.6	1.9	3.8
	<b>Fluoride</b>	<b>4</b>	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Sulfate</b>	<b>(250)</b>	ND	ND	ND	1.2	ND	ND	ND	ND
	<b>TDS</b>	<b>(500)</b>	120	74	62	110	56	100	140	16

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 EPD as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such a low level that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

**Table 5B**  
**Summary of Groundwater Analytical Data**  
**September 2018**

Substance	MCL/ (SMCL)	GWC-25	GWC-26	GWC-27	GWA-28	GWA-29	GWC-30	GWC-31	GWC-32	
		9/26/2018	9/27/2018	9/27/2018	9/25/2018	9/25/2018	10/3/2018	10/3/2018	10/2/2018	
<b>Appendix III</b>	<b>Boron</b>	<b>N/R</b>	ND (0.023 J)	ND	ND	ND	ND	ND	ND	
	<b>Calcium</b>	<b>N/R</b>	9.2	2.1	3.4	2.8	4.6	3.3	11	7.7
	<b>Chloride</b>	<b>(250)</b>	5.6	3.0	1.0	1.2	1.2	1.4	1.7	1.0
	<b>Fluoride</b>	<b>4</b>	ND	ND	0.91	1.7	2.3	ND (0.13 J)	1.7	2.4
	<b>Sulfate</b>	<b>(250)</b>	12	ND	2.5	1.3	9.1	1.2	18	9.7
	<b>TDS</b>	<b>(500)</b>	60	86	58	36	80	42	86	100

Notes:

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7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.



**Table 5B**  
**Summary of Groundwater Analytical Data**  
**September 2018**

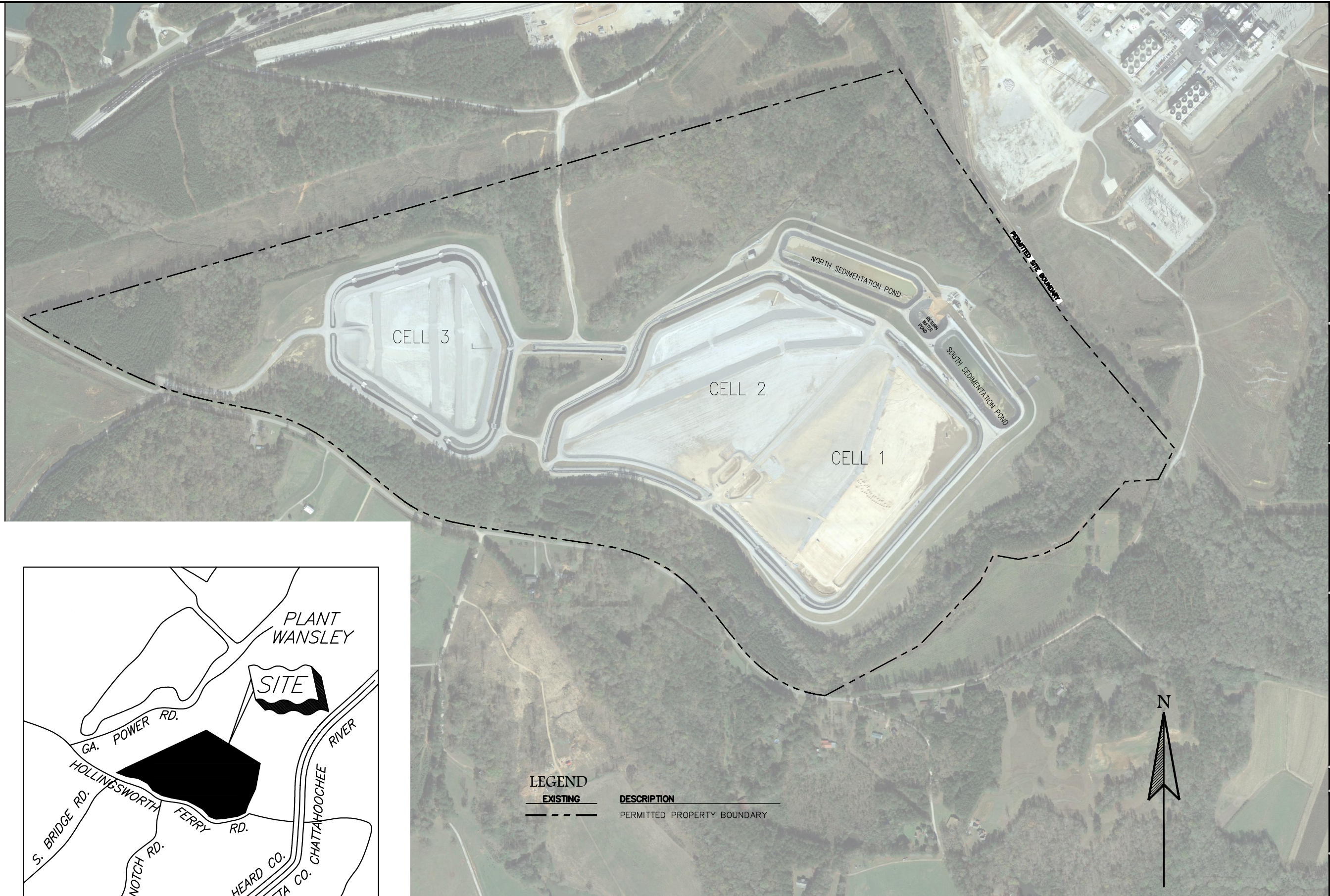
	Substance	MCL/ (SMCL)	GWC-33	GWC-34	GWC-35
			10/2/2018	10/2/2018	10/1/2018
<b>Appendix III</b>	<b>Boron</b>	<b>N/R</b>	ND	ND	ND
	<b>Calcium</b>	<b>N/R</b>	15	3.1	2.1
	<b>Chloride</b>	<b>(250)</b>	2.2	1.1	3.6
	<b>Fluoride</b>	<b>4</b>	2.1	ND (0.18 J)	ND
	<b>Sulfate</b>	<b>(250)</b>	11	1.4	2.8
	<b>TDS</b>	<b>(500)</b>	120	98	40

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
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7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring.
9. NS indicates not sampled due to insufficient water volume.

## FIGURES





**ACC**  
**ATLANTIC COAST CONSULTING, INC.**  
 630 Colonial Park Dr.  
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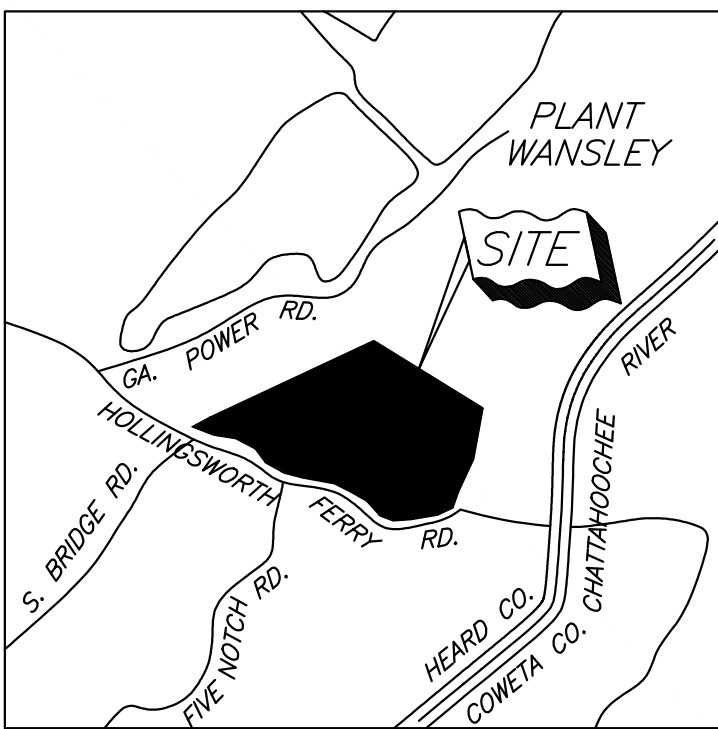
PROJECT:  
**PLANT WANSLEY CCR LANDFILL**

1371 LIBERTY CHURCH ROAD  
 CARROLTON, GEORGIA

REVISIONS


Drawn by: **MM**      Checked by: **EP**

PROJECT NUMBER:  
**I054-110**  
 January 2019



LOCATION MAP

**SITE LOCATION MAP**

FIGURE **1**















# APPENDICES

APPENDIX A

ALTERNATE SOURCE DEMONSTRATIONS



**Georgia Power Company**  
**Plant Wansley CCR Landfill**  
Carrollton, Georgia 30116  
Heard County

**Alternate Source Demonstration**

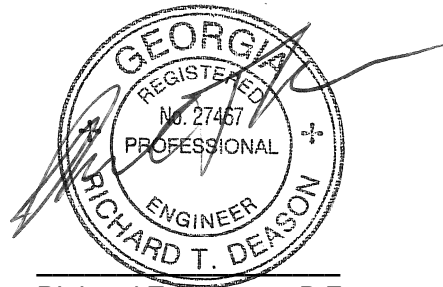


## Certification Statement

I hereby certify that the information used in this alternate source demonstration for the CCR Unit located at Georgia Power's Plant Wansley located at 1371 Liberty Church Road, Carrollton, Georgia, and designated as the Coal Combustion By-Product Disposal Facility, is accurate pursuant to the requirements of 40 CFR §257.94(e)(2).



Evan B. Perry, P.E.  
Georgia Registered Professional  
Geologist No. 1744  
Originator



Richard T. Deason, P.E.  
Georgia Registered Professional  
Engineer No. 2213  
Reviewer

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Certification Statement

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Figure 12 – Stiff Diagrams for Cell 3 Monitoring Wells

#### Appendices

Appendix A – Boring Logs

Appendix B – Laboratory Analytical Results & Purge Data Sheets

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# SECTION 1

## Introduction

This document presents an alternate source demonstration (ASD) for statistically significant increases (SSIs) as identified in the 2017 Annual Groundwater Monitoring and Corrective Action Report submitted on January 31, 2018. This ASD has been prepared pursuant to 40 CFR 257.94(e)(2), which states that “the owner/operator may demonstrate that a source other than the coal combustion residual (CCR) unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.”

Georgia Power Company (GPC) – Plant Wansley CCR Landfill (the site) is located in northeast Heard County and southeast Carroll County on Liberty Church Road, approximately 12 miles southeast of the City of Carrollton. The plant property encompasses approximately 5,100 acres and the landfill is permitted to operate by the Georgia Environmental Protection Division (EPD) [Permit No. 074-005D(L)(I)]. The disposal facility is comprised of three cells within an approximate 73-acre disposal footprint. Figure 1, Plant Wansley CCB Disposal Facility Site Location Map, depicts the site location referenced to regional landmarks. The facility has received only flue gas desulfurization gypsum waste from GPC – Plant Wansley to date; however, a recently approved permit modification will allow for all forms of CCR to be disposed in the future.

In accordance with the United States Environmental Protection Agency (USEPA) CCR rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR21302-21501, April 17, 2015), the facility prepared the *2017 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at the site 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. In that report, SSIs were identified as follows:

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

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## SECTION 2

### Alternate Source Demonstration

As allowed by §257.94(e)(2), the site may demonstrate that a source other than the CCR unit caused the SSI for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. This report demonstrates an alternate source for SSIs of constituents included in Appendix III of 40 CFR. §257 identified following analysis of the first detection monitoring event data. SSIs were identified for three groundwater monitoring network wells (GWC-9, GWC-14, and GWC-32). Two of these locations (GWC-9 and GWC-14) were previously identified as having SSIs under state permitting requirements. The SSIs at these locations were addressed in an EPD-approved ASD completed in 2017. This ASD builds on information provided in the 2017 document to address the newly required Appendix III constituents. There are conditions unique to each individual well where one or more SSIs were identified at the site. Therefore, the following sections provide specific demonstrations, by well, to support that the site is not the source of the SSI. A recent potentiometric surface map is provided for reference as Figure 2, Plant Wansley CCB January 2018 Potentiometric Surface Map.

#### 2.1 GWC-9

##### 2.1.1 SSI Identification

One Appendix III analyte (boron) was identified in the *2017 Annual Groundwater Monitoring and Corrective Action Report* as a SSI at this location. The concentration of 0.12 milligrams per liter (mg/L) reported in the sample collected during the October 2017 detection monitoring event exceeded the site prediction limit of 0.05 mg/L. A verification resample was collected on December 1, 2017 and the exceedance was confirmed at a concentration 0.10 mg/L.

##### 2.1.2 Data Review

Background monitoring was initiated in 2016 and continued through 2017. As shown in Figure 3, Boron Time Series Plot for GWC-9, the concentration of boron was reported at trace levels during the initial rounds of background monitoring (estimated “J” values of 0.0635J and 0.0981J mg/L March and May 2016, respectively). An increase in concentration to 0.26 mg/L was reported in July 2016 and continued until reaching a maximum level of 0.44 mg/L in November 2016. The concentration declined to 0.11 mg/L in January 2017 and remained in a range of 0.071 to 0.12 mg/L for the duration of 2017. The well was most recently sampled in January 2018 as part of the first 2018 semi-annual monitoring event required by the current solid waste permit. The January 2018 concentration of 0.044J mg/L was less than the site prediction limit of 0.050 mg/L.

Other Appendix III parameter trends were reviewed in order to gain insight into the source of the boron increase and subsequent decline. Based on a review of these data, chloride, total

dissolved solids (TDS) and to a lesser extent calcium exhibit trends similar to boron. All of these analytes showed increases in late 2016 reaching maximum levels during the November 2016 event then subsequently declining to near the original early 2016 levels. Time series plots for these analytes are provided in Figure 4 (Chloride Time Series Plot for GWC-9), Figure 5 (TDS Time Series Plot for GWC-9) and Figure 6 (Calcium Time Series Plot for GWC-9).

Water level and precipitation data were also reviewed. The increasing analyte trends correspond to a period of relative drought. According to the National Oceanic and Atmospheric Administration (NOAA) the average annual precipitation for Carrollton, Georgia is 51.4 inches. The University Georgia College of Agricultural & Environmental Sciences maintains a statewide weather monitoring network including a Plant Wansley station. Data from the Plant Wansley station indicate that 2016 was a significantly drier than average year with total precipitation of 39.6 inches. Conversely, both 2015 and 2017 were wetter than average with respective totals of 60.2 and 69.7 inches. The period between September 19 and November 28, 2016 was notably dry in that no precipitation event greater than 0.1 inches occurred. As shown in Figure 7, Groundwater Elevation and Boron Time Series Plot for GWC-9, the dry weather during late 2016 coincides with lower water groundwater elevations and higher boron concentrations at GWC-9.

### **2.1.3 Alternate Source Review**

Based on a review of the facility's Design and Operation Plans and recent aerial photographs, direct leakage from the cell area is highly improbable. Very limited gypsum slurry has been directed into Cell 2 and the small amount that has been is located on the opposite side of the cell approximately 1200 feet from GWC-9. The landfill is a fully lined unit including a 60-mil thick high-density polyethylene (HDPE) liner underlain by a geosynthetic clay liner (GCL), a 6-inch layer of compacted clay (maximum permeability of  $1 \times 10^{-5}$  cm/sec), and structural fill. Two sedimentation basins and a return water pond capture all leachate, sluice water and storm water run-off generated in the lined cell areas.

Storm water runoff from the perimeter gravel road has occurred near GWC-9 (uphill from the pump booster station), as evidenced by erosion rills in the vicinity. The gravel road is not anticipated to be a significant source of impact; however, the road is serviced by water trucks used for dust suppression. During drought conditions present in 2016, the facility opted to minimize water usage from typical sources by utilizing water from the NPDES discharge pond (retention pond). Water from this pond has been treated prior to release. However, it may exhibit slightly different chemical characteristics than the dust suppression water used during non-drought conditions (i.e. potentially accounting for the boron and chloride increases and subsequent decline after the drought ended). An operational issue related to dust suppression is a potential source.

### **2.1.4 Natural Variation in Groundwater Quality**

As discussed in Section 2.1.2, an increasing trend in the concentrations of boron, chloride and TDS occurred during a period of relative drought in 2016. Concentrations diminished

during a return of wetter weather during 2017 Lower groundwater elevations have the potential to result in fluctuations in the concentrations of naturally occurring analytes (i.e. groundwater is less diluted by rainwater during periods of relative drought). As shown in Figure 7 there appears to be an inverse relationship between the groundwater elevation and boron concentration. Therefore, a natural variation in groundwater quality is also a potential source.

### **2.1.5 Summary and Recommendations**

The CCR unit is not the apparent source of the boron SSI. The lined landfill was constructed to prevent direct impact to groundwater and there is no waste in close proximity to the well. Dry weather conditions that occurred in 2016 indicate the possibility that a natural variation in groundwater quality occurred. Additionally, recent data indicate that conditions have returned to background levels and concentrations are no longer at SSI levels. The monitoring well should remain in detection monitoring as the assessment trigger is no longer present and an alternate source was identified.

## **2.2 GWC-14**

### **2.2.1 SSI Identification**

Two Appendix III analytes (boron and chloride) were identified in the *2017 Annual Groundwater Monitoring and Corrective Action Report* as SSIs at this location. The respective concentrations of 0.95 and 160 mg/L for boron and chloride reported in the sample collected during the October 2017 detection monitoring event exceeded the site prediction limits of 0.05 mg/L (boron) and 23 mg/L (chloride). A verification resample was collected on December 1, 2017 and the exceedances were verified at concentrations of 1.2 and 150 mg/L for boron and chloride, respectively.

### **2.2.2 Data Review**

The concentration ranges for boron and chloride have shown variability during monitoring. As shown in Figure 8, Boron Time Series Plot for GWC-14 and Figure 9, Chloride Time Series Plot for GWC-14, the range of boron concentrations is 0.29 to 1.2 mg/L and chloride 46 to 180 mg/L. However, even at the low end of the ranges the concentrations are above site background conditions.

### **2.2.3 Alternate Source Review**

Groundwater monitoring well GWC-14 is located directly downhill and downgradient from the return water pond, return water pumps, and electrical control building. Effluent is transferred from the return water pond to the return water lines that connect to the plant where it is recycled for operations.

There have been historical operational issues in this area. An unpermitted discharge due to the failure of an HDPE expansion joint on the return water pipe occurred on August 30, 2014. The Georgia Environmental Protection Division was immediately verbally notified and



subsequently provided written notification. The facility made immediate repairs and also began to evaluate long-term corrective actions. The pond was temporarily taken out-of-service to allow repairs to be made beginning in early 2015. The concrete headwall, HDPE liner and soil berm were removed to expose the buried return water piping leading from the return water pond to the pumps. Repairs to the piping, liner and headwall were completed in early 2017. The pond is now fully repaired and functional.

#### **2.2.4 Summary and Recommendations**

The CCR unit is not the direct source of the boron and chloride SSIs. The apparent source is a return water piping failure that was identified and addressed. The facility completed repairs to the return water pond and piping in 2017 that will prevent future releases from occurring and thus allowing boron and chloride concentrations to eventually return to background levels. The monitoring well should remain in detection monitoring as an alternate source was identified.

### **2.3 GWC-32**

#### **2.3.1 SSI Identification**

One Appendix III analyte (fluoride) was identified in the *2017 Annual Groundwater Monitoring and Corrective Action Report* as a SSI at this location. The concentration of 3.4 mg/L reported in the sample collected during the October 2017 detection monitoring event exceeded the site prediction limit of 3.2 mg/L. A verification resample was collected on December 1, 2017 and the exceedance was verified at a concentration of 3.4 mg/L.

#### **2.3.2 Data Review**

Concentrations of fluoride ranged from 2.1 to 3.9 mg/L in samples collected from GWC-32 during background monitoring. The concentrations reported during the compliance event and verification resample were within this range. Several nearby monitoring wells also produced consistent detections of fluoride (e.g. GWA-28, GWA-29, GWC-27, GWC-31 and GWC-33). Two of these locations, GWA-28 and GWA-29 are upgradient from Cell 3 and are used to characterize background conditions. Concentrations at these locations ranged from 1.4 to 3.2 mg/L during background monitoring. The site prediction limit of 3.2 mg/L was based on these data (i.e. maximum concentration reported in background).

Reported fluoride concentrations in multiple upgradient and downgradient wells at Cell 3, which has not yet been used for CCR disposal, are likely derived from a natural source in the underlying bedrock. The boring logs from these locations provided in Appendix A, Boring Logs, indicate that GWA-28, GWA-29, GWC-27, GWC-31, GWC-32, and GWC-33 are at least partially screened in a common lithology, the Long Island Creek Gneiss. This lithology is localized to this portion of Plant Wansley. Rock units encountered in other portions of the site include: biotite gneiss (easily differentiated from the Long Island Creek Gneiss by greater abundance of mafic minerals), quartzite, schist units and amphibolite units. As shown in Figures 1 and 2, these well locations are adjacent to each other. It is noted that

one location in this area, GWC-30 did not produce fluoride detections. However, this location is differentiated from the others in that it is screened in overburden rather than bedrock. A time series plot depicting fluoride concentrations at these locations is provided as Figure 10, Fluoride Time Series Plot for Cell 3 Monitoring Wells.

### 2.3.3 Alternate Source Review

Groundwater monitoring well GWC-32 is adjacent to Cell 3. This cell is not contiguous with Cells 1 and 2 and has never received waste. Therefore, the CCR unit is not the apparent source.

### 2.3.4 Natural Variation in Groundwater Quality

Based on the commonality of the localized lithology, the Long Island Creek Gneiss was identified as a potential source of fluoride in groundwater samples from GWC-32 and other nearby locations. Identification of a natural bedrock source of fluoride is supported by the following evidences from (A) fluoride analysis in rock samples and (B) the major ionic concentrations in groundwater for evaluation of the chemical composition of groundwater.

A. ACC obtained core samples from the plant and/or SCS storage of three distinct site lithologies: Long Island Creek Gneiss, schist/amphibolite and quartzite. Core sample fragments were shipped to TestAmerica Pensacola for analysis of fluoride by EPA Method 9056. It should be noted that this laboratory method only accounts for water soluble fluoride and not concentrations present in the rock matrix. The actual whole rock concentration of fluoride is likely to be much higher. The sample results are summarized in Table 1 and the laboratory analytical report is included in Appendix B, Laboratory Analytical Results & Purge Data Sheets.

**TABLE 1.** Rock sample fluoride concentrations.

Sample Identification	Fluoride Concentration (mg/Kg)
PB-3 Long Island Gneiss 56-57'	11
PB-4 Long Island Gneiss 49-50'	9.3
PB-8 Schist/Amphibolite 123-124'	<1.3
PB-9 Schist/Amphibolite 65-66'	3.4J
APC-5D Quartzite 90-91'	<1.3

Notes:

1. mg/Kg = milligrams per kilogram
2. "J" = reported concentration is less than laboratory reporting limit and considered estimated.

The results confirm that there is a significantly higher concentration of fluoride in the Long Island Creek Gneiss relative to other site lithologies that were analyzed. Therefore, wells screened in this unit may be more likely to produce detections of fluoride. Concentrations of fluoride are likely to be somewhat variable within the Long Island Creek Gneiss and wells screened in this formation may show different levels of fluoride in

groundwater. It is likely that GWC-32 is screened in a zone of slightly greater fluoride concentrations than the upgradient locations.

- B. On March 15 -16, 2018 ACC personnel sampled GWA-28, GWA-29, GWC-27, GWC-31, and GWC-32 for a suite of cations (calcium, magnesium, sodium, and potassium) and anions (carbonate, bicarbonate, sulfate, and chloride). The samples were collected using standard site sampling techniques and submitted to TAL-Pensacola for analysis. The analytical data are presented as Piper Plot and Stiff Diagrams. As shown in Figure 11, Piper Plot for Cell 3 Monitoring Wells and Figure 12, Stiff Diagrams for Cell 3 Monitoring Wells, there are no significant differences in the major ionic concentrations of the samples (i.e. all are low level and indicative of background conditions). This indicates that the chemical composition of groundwater between upgradient and downgradient locations are relatively similar in the vicinity of Cell 3. Therefore, all of these locations appear to represent background conditions as would be anticipated with a cell that has not received waste. The laboratory report and field purge logs are provided in Appendix A.

### 2.3.5 Summary and Recommendations

The CCR unit is not the source of the fluoride SSI. The apparent source is natural variability in groundwater. Testing of the rock unit present beneath a portion of Cell 3, the Long Island Creek Gniess confirm that fluoride concentrations in this unit are higher than at least two other rock units present in other areas of the site. A Piper Plot and Stiff Diagrams confirm that there are no significant differences in cation/anion ratios between any of the Cell 3 wells tested. Cell 3 has yet to receive waste, therefore the geochemical similarity between all locations is consistent with what would be anticipated. Groundwater monitoring location GWC-32 should remain in detection monitoring based on the identification of the alternate source.

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## SECTION 3

### Conclusions and Recommendations

The *2017 Annual Groundwater Monitoring and Corrective Action Report* was prepared to satisfy the requirements of §257.90(e). In that report SSIs were identified for three groundwater monitoring locations: GWC-9 (boron), GWC-14 (boron and chloride) and GWC-32 (fluoride). This ASD has identified the following sources for each location with a SSI:

- GWC-9
  - A source other than the CCR unit caused the SSI (no waste placement near the well; operational issue)
  - Natural variation in groundwater quality (drought condition)
- GWC-14
  - A source other than the CCR unit caused the SSI (operational issue and repair)
- GWC-32
  - A source other than the CCR unit caused the SSI (no waste placement near the well)
  - Natural variation in groundwater quality (natural occurrence in rock formation)

All locations have met the requirements for a demonstration listed in §257.94(e)(2). Therefore, all locations should remain in detection monitoring at this time. Detection monitoring results should continue to be presented in the Annual Groundwater Monitoring and Corrective Action Reports, as well as state semi-annual groundwater monitoring reports.

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## SECTION 4 References

ACC, Inc. *First 2018 Semiannual Groundwater Monitoring Report*, Plant Wansley CCB Disposal Facility, 2018.

ERM, Inc. *2017 Annual Groundwater Monitoring and Corrective Action Report*, Plant Wansley CCB Disposal Facility, 2018.

ERM, Inc. *Well Design, Installation, Development, and Decommissioning Report*, Plant Wansley CCB Disposal Facility, 2017.

NOAA, <http://w2.weather.gov>, Peachtree City, Georgia National Weather Service Forecast Office.

Southern Company Generation Engineering and Construction Services, *Design and Operation Plans*, Plant Wansley Coal Combustion By-Product Disposal Facility, 2012.

Southern Company Services (SCS), *Alternate Source Demonstration for Plant Wansley Disposal Facility Groundwater Monitoring Network*, 2017.

University of Georgia Weather Network, <http://www.georgiaweather.net>, Plant Wansley station, Roopville, Georgia.

## FIGURES

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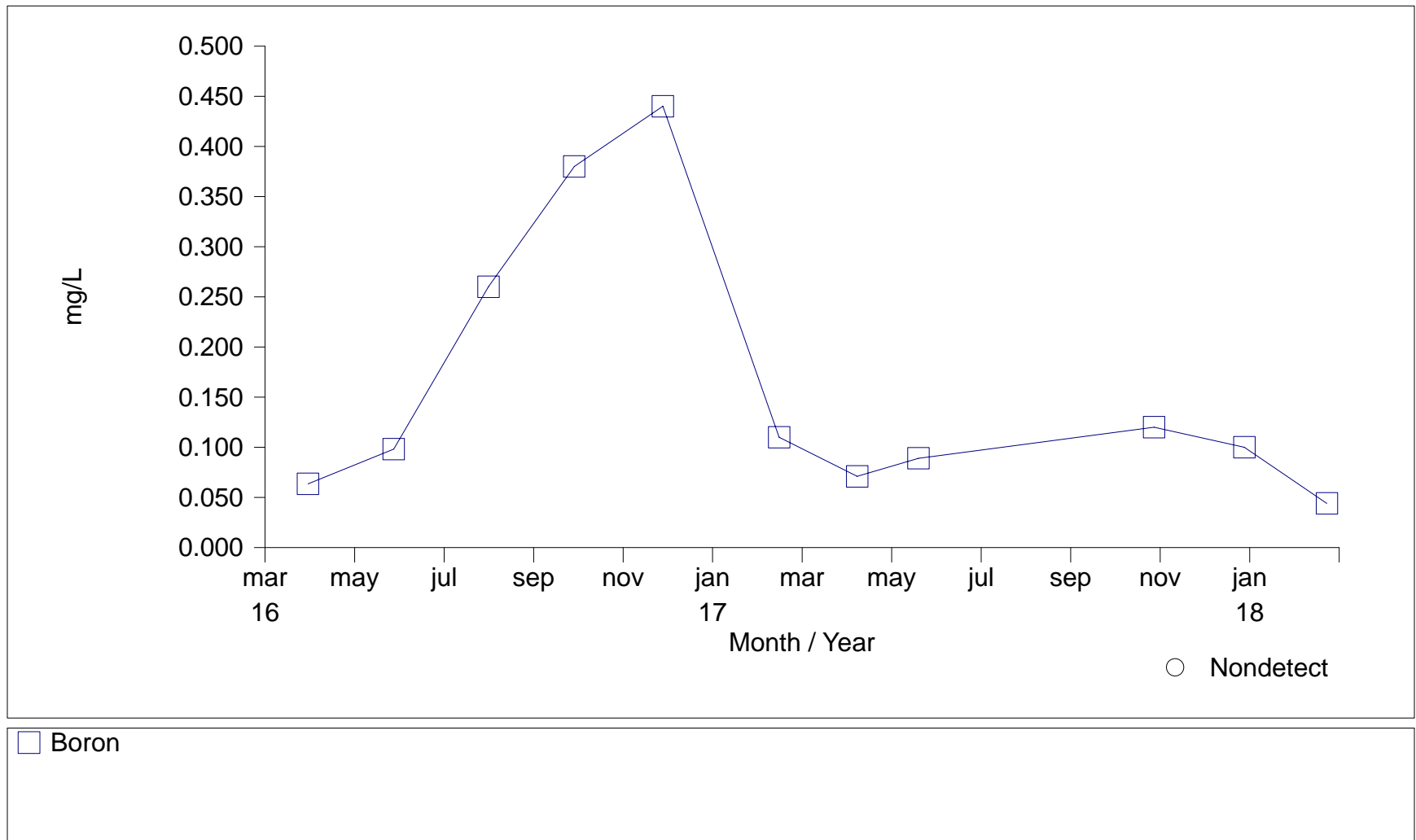






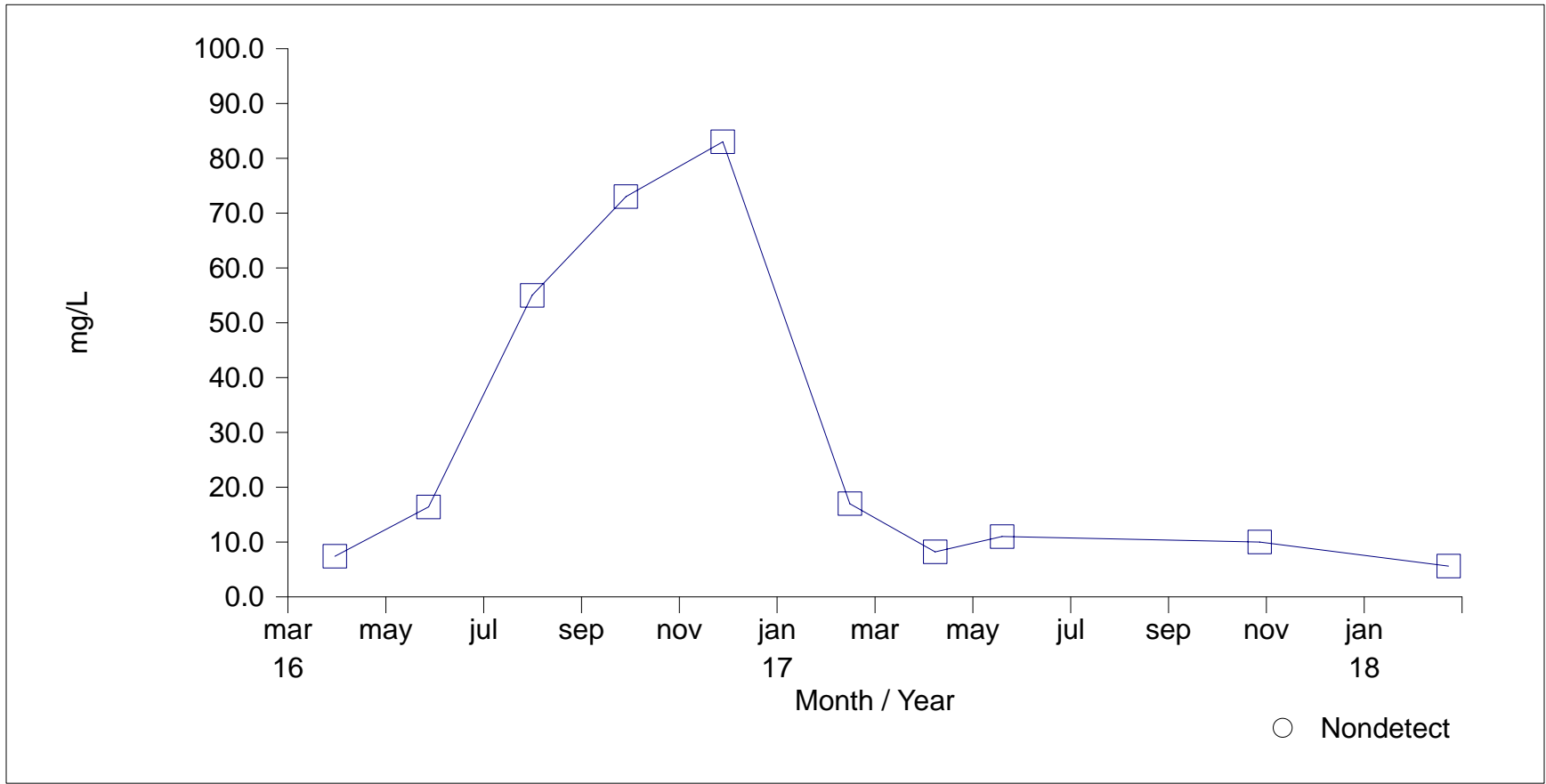
### **FIGURE 3**

Boron Time Series Plot for GWC-9



# FIGURE 4

Chloride Time Series Plot for GWC-9

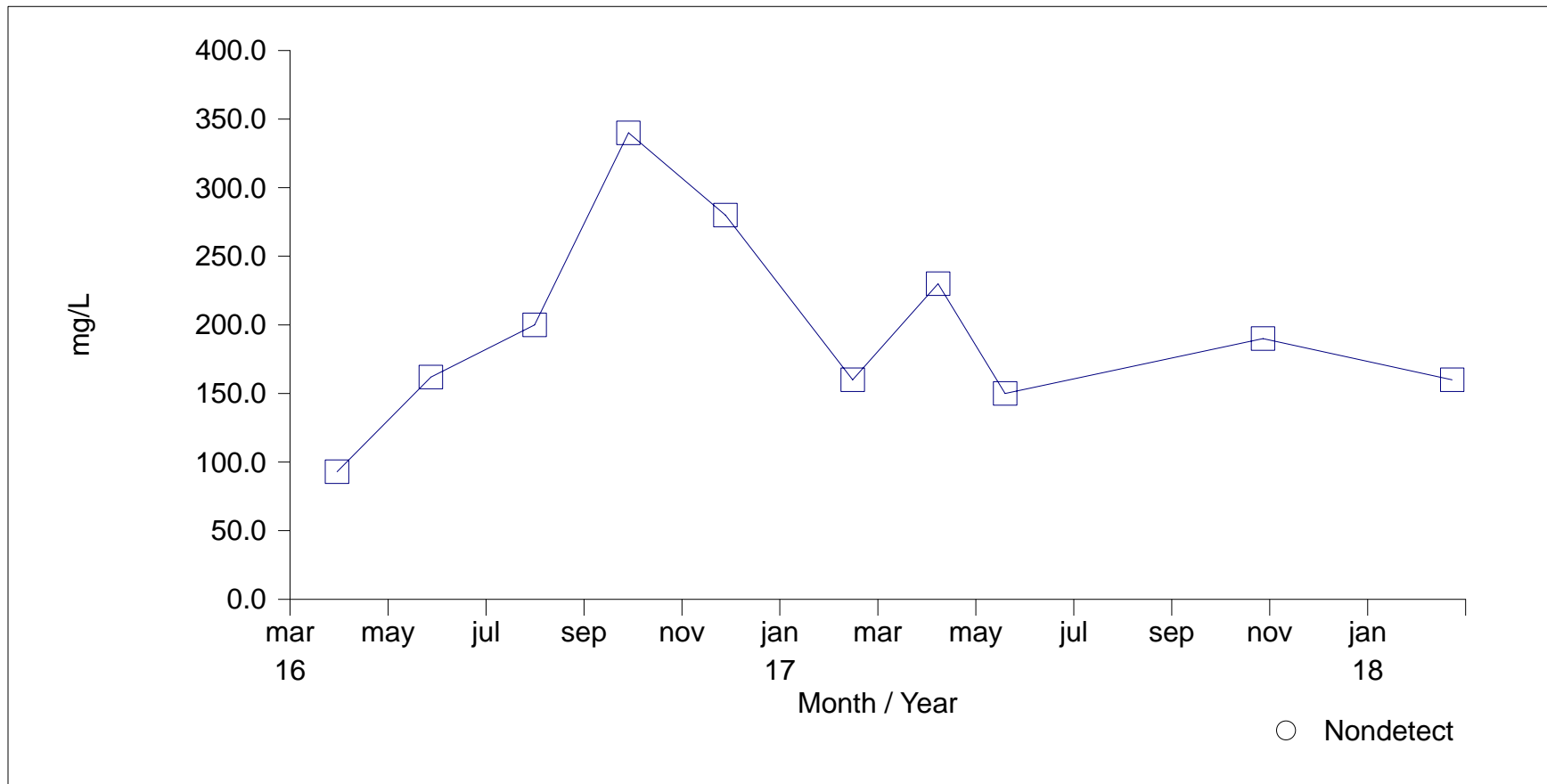


□ Chloride

○ Nondetect

### FIGURE 5

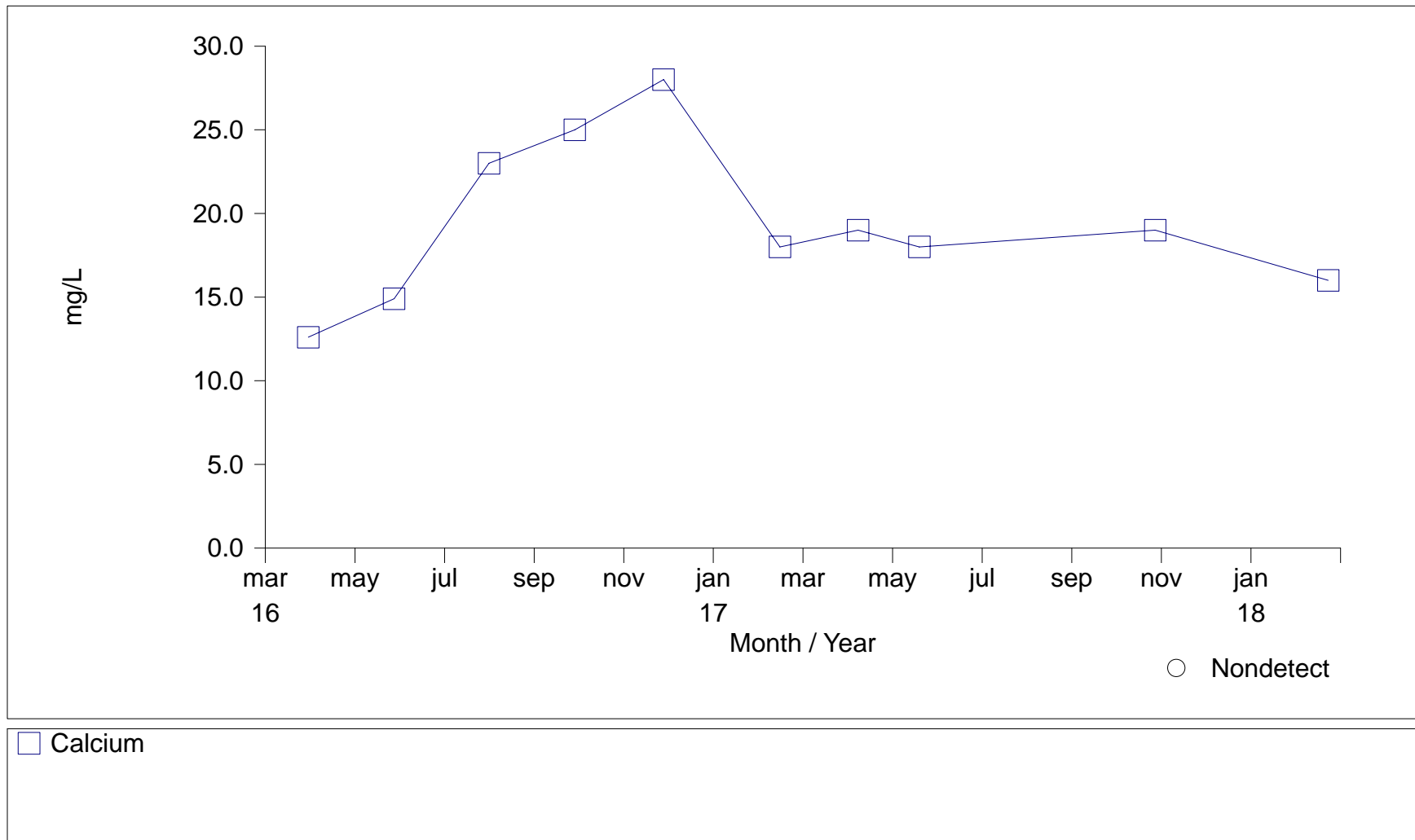
TDS Time Series Plot for GWC-9



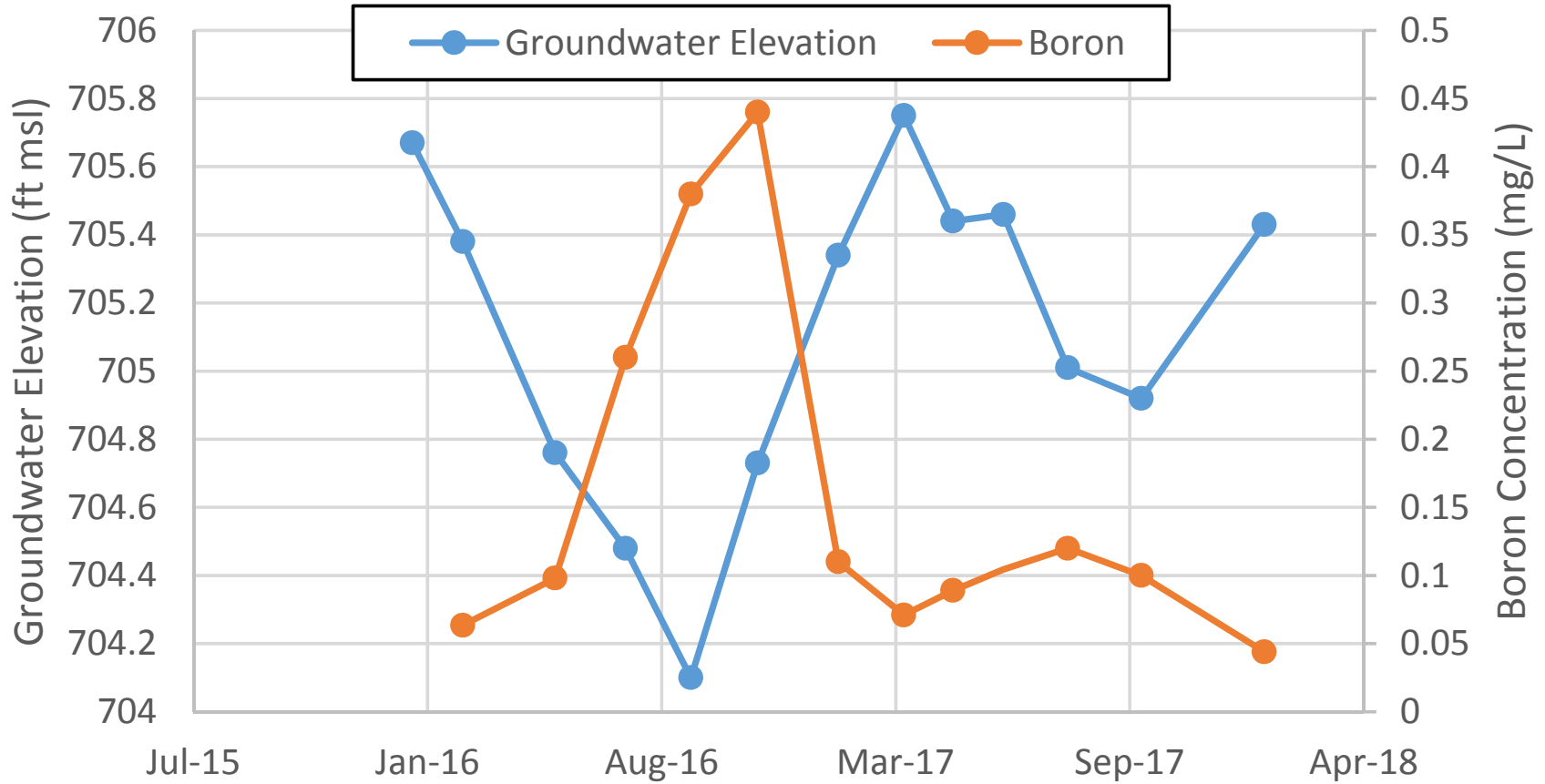
□ TDS

### FIGURE 6

Calcium Time Series Plot for GWC-9

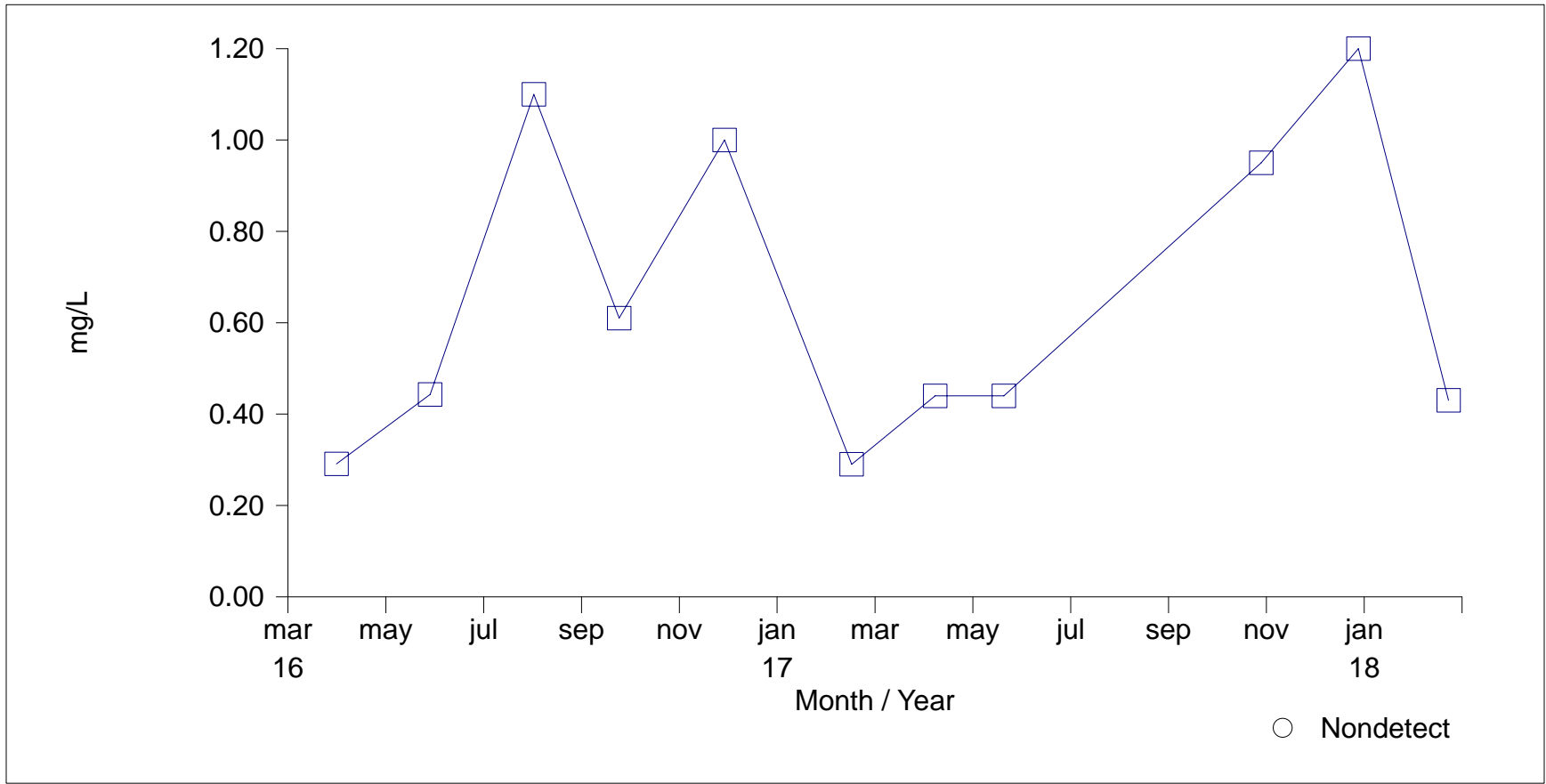


**FIGURE 7 - GWC-9 Groundwater Elevation and Boron Time Series**



# FIGURE 8

Boron Time Series Plot for GWC-14

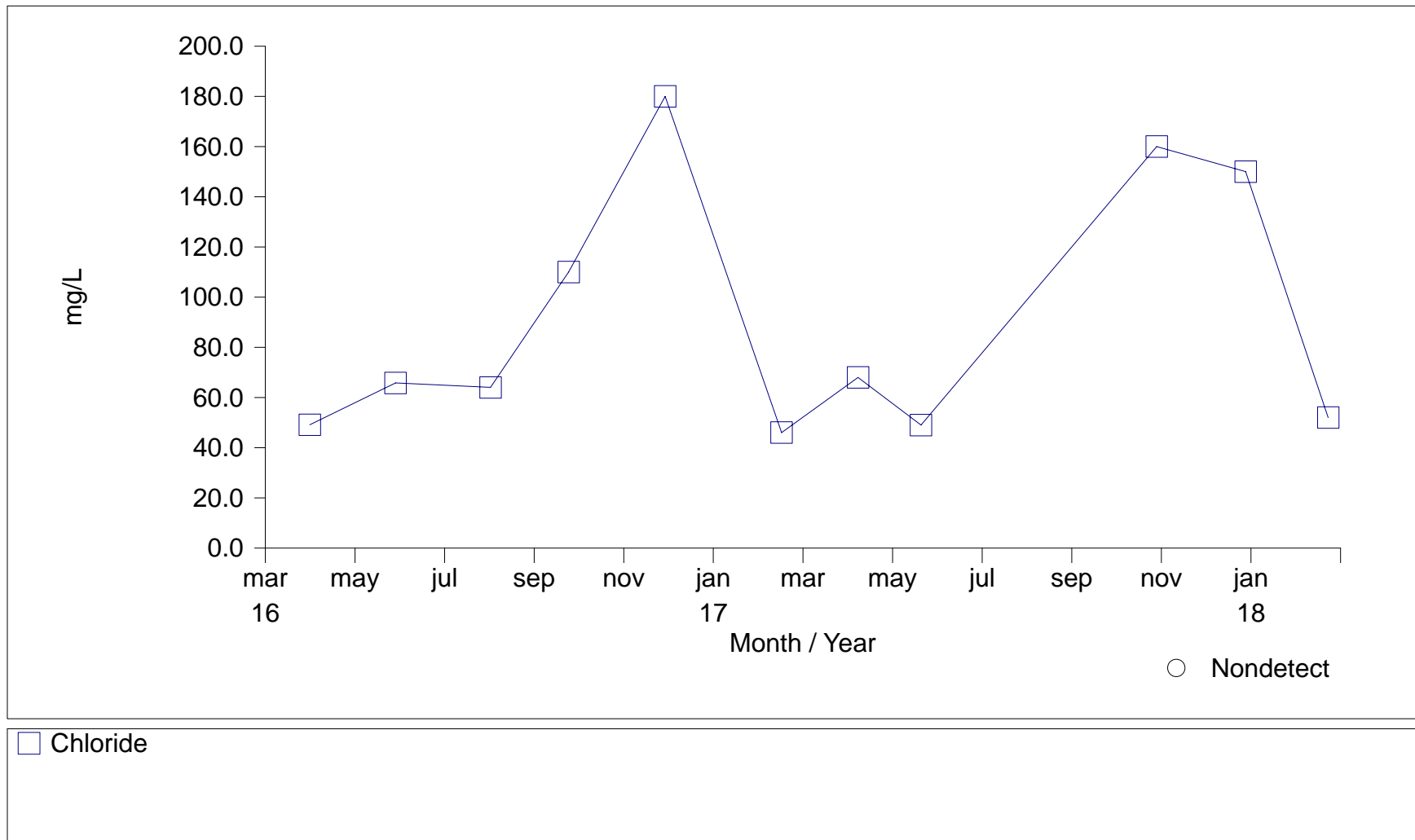


□ Boron

○ Nondetect

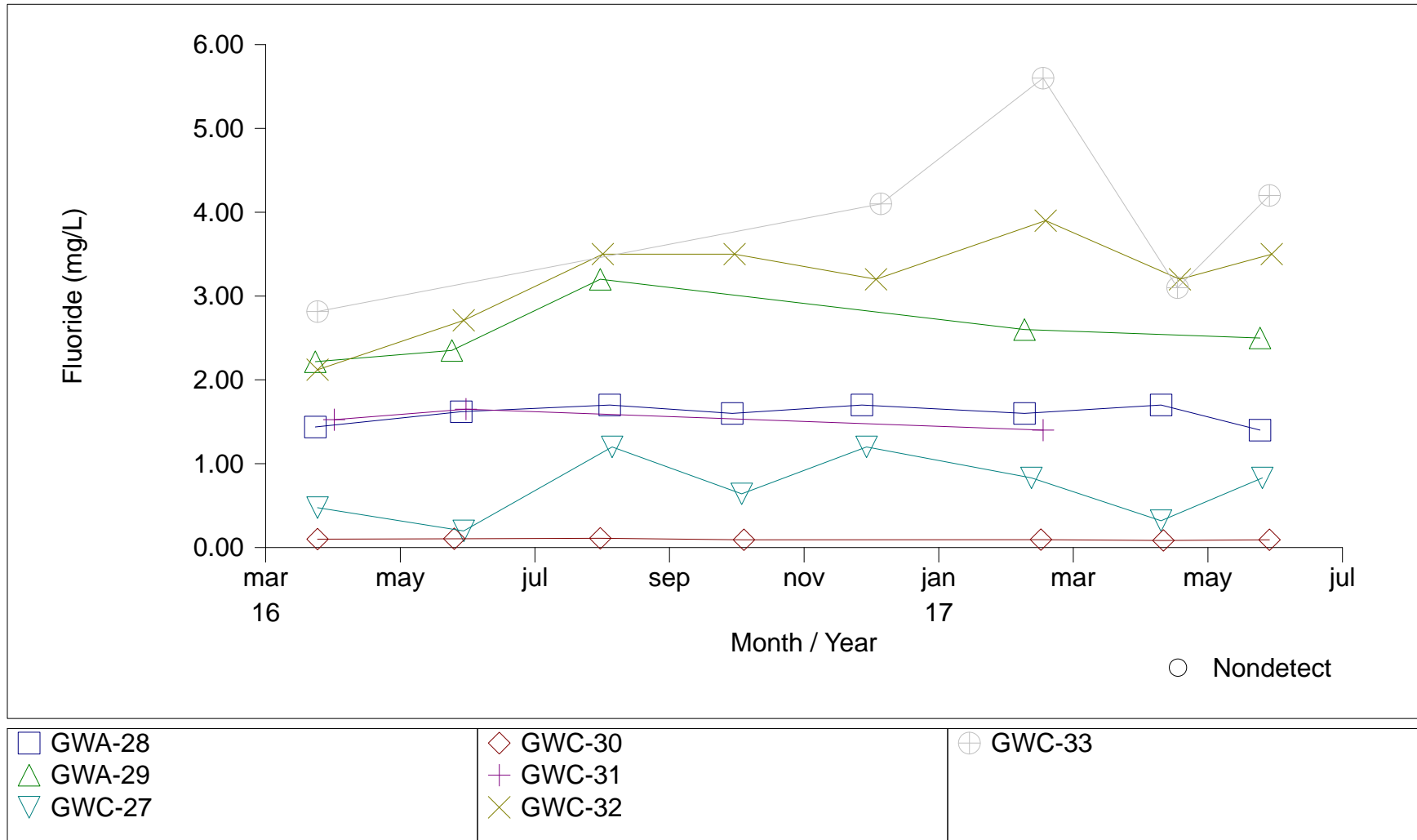
### **FIGURE 9**

Chloride Time Series Plot for GWC-14



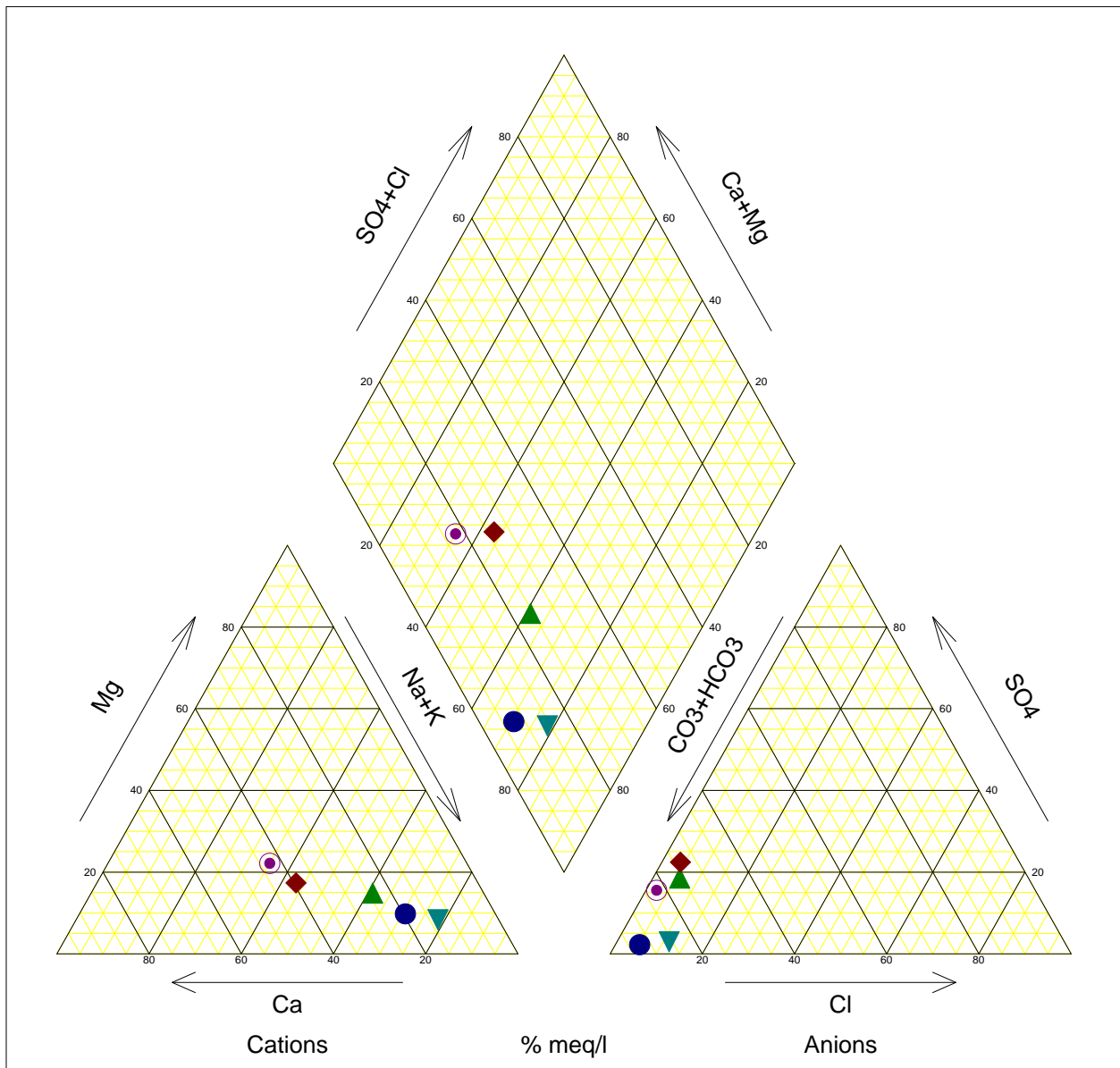
**FIGURE 10**

Fluoride Time Series Plot for Cell 3 Monitoring Wells



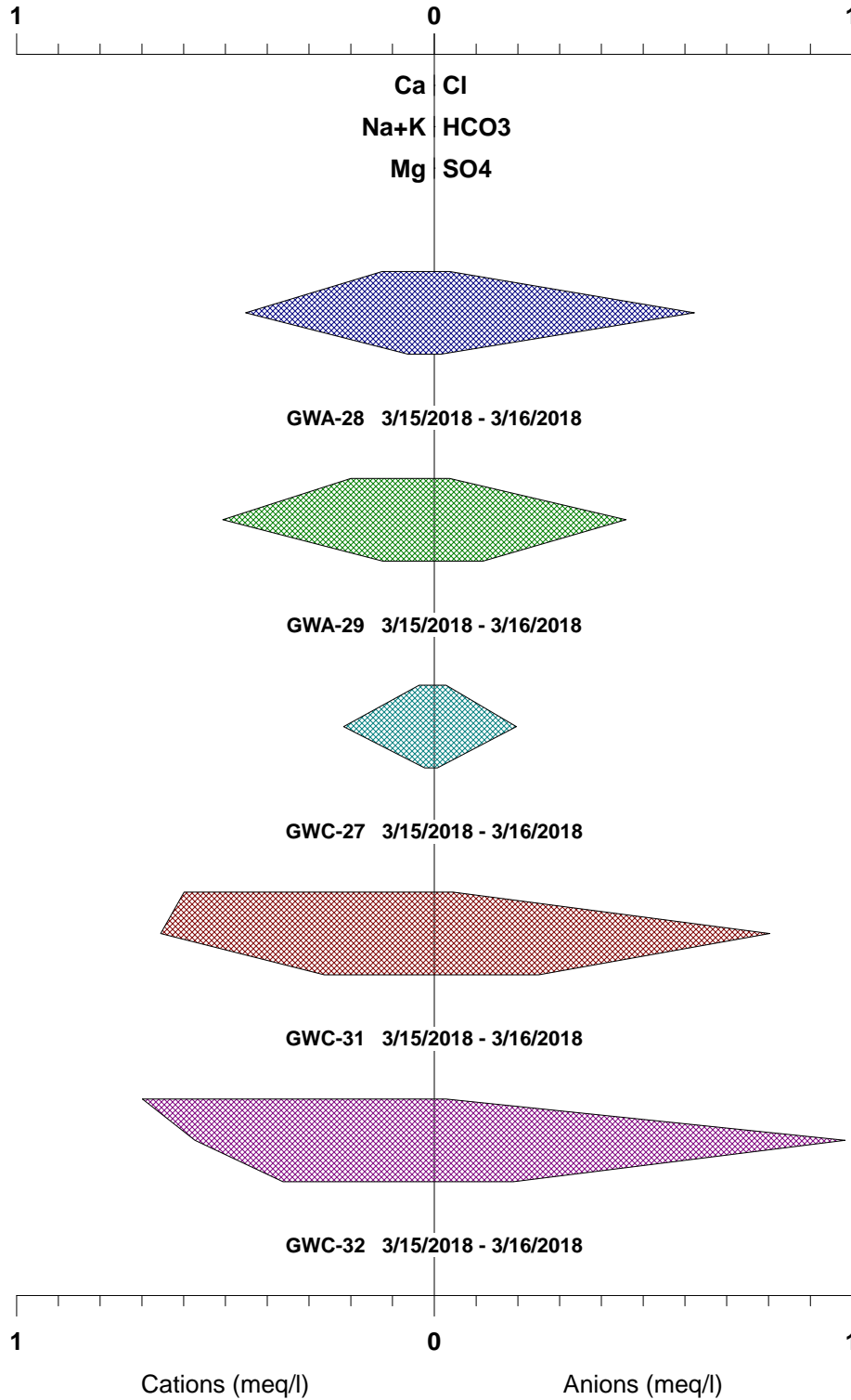


**FIGURE 11**  
Piper Plot for Cell 3 Monitoring Wells



- GWA-28      3/15/2018 - 3/16/2018
- ▲ GWA-29      3/15/2018 - 3/16/2018
- ▼ GWC-27      3/15/2018 - 3/16/2018
- ◆ GWC-31      3/15/2018 - 3/16/2018
- GWC-32      3/15/2018 - 3/16/2018

**FIGURE 12**  
Stiff Diagrams for Cell 3 Monitoring Wells



**ATTACHMENT A – Boring Logs**

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# LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Wansley  
LOCATION Carrollton, Georgia

DATE STARTED 2/16/2011 COMPLETED 2/16/2011 SURF. ELEV. Not Surveyed COORDINATES: \_\_\_\_\_

CONTRACTOR Boart Longyear EQUIPMENT \_\_\_\_\_ METHOD Rotosonic

DRILLED BY \_\_\_\_\_ LOGGED BY C. Sellers CHECKED BY \_\_\_\_\_ ANGLE \_\_\_\_\_ BEARING \_\_\_\_\_

BORING DEPTH 68 ft. GROUND WATER DEPTH: DURING \_\_\_\_\_ COMP. \_\_\_\_\_ DELAYED \_\_\_\_\_

NOTES Well installed. Refer to well data sheet.

SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION <small>Weak Moderate Strong</small>	COMMENTS
		<b>Silty Sand (SM)</b> - red (10R 5/6) dry <b>(PWR)</b> - white (10YR 8/1)		
5		<b>Silty Sand (SM)</b> - red (10R 5/6)		
		<b>Clayey Sand (SC)</b> - red (10R 5/6)		
10		<b>Silty Sand (SM)</b> - red (10R 5/6) micaceous		
15		<b>(PWR)</b> - red (10R 5/6) saprolite 0.5" white layer at 16.5'		
20		<b>Silty Sand (SM)</b> - yellowish brown / moderate yellowish brown (10YR 5/4) micaceous with red streaks		
25		<b>(PWR)</b> - yellowish brown / moderate yellowish brown (10YR 5/4) saprolite trace gravel		
30		<b>(PWR)</b> - red (10R 5/6) saprolite damp		
35		<b>(PWR)</b> - yellowish brown / moderate yellowish brown (10YR 5/4) saprolite damp		
40				

(Continued Next Page)



# LOG OF TEST BORING

**BORING GWC-27**  
PAGE 2 OF 2

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Wansley  
LOCATION Carrollton, Georgia

SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\2011\PLANT WANSLEY WELL LOGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION <small>Weak Moderate Strong</small>	COMMENTS
		(PWR) (Con't)		
45		(PWR) - white (2.5Y 8/1) dry		
		(PWR) - yellowish brown / moderate yellowish brown (10YR 5/4) saprolite damp		
50		(PWR) - yellow (10YR 7/6) saprolite damp		
		(PWR) - yellowish brown / moderate yellowish brown (10YR 5/4) saprolite damp		
55				
		(PWR) - yellowish brown / moderate yellowish brown (10YR 5/4) saprolite wet, with gravel		
60				
65		GNEISS		
70		Bottom of borehole at 68.0 feet.		
75				
80				
85				



# LOG OF TEST BORING

**BORING GWA-28**  
PAGE 1 OF 1

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Wansley  
LOCATION Carrollton, Georgia

DATE STARTED 2/22/2011 COMPLETED 2/22/2011 SURF. ELEV. Not Surveyed COORDINATES: \_\_\_\_\_

CONTRACTOR Boart Longyear EQUIPMENT \_\_\_\_\_ METHOD Rotosonic

DRILLED BY \_\_\_\_\_ LOGGED BY G. Dyer CHECKED BY \_\_\_\_\_ ANGLE \_\_\_\_\_ BEARING \_\_\_\_\_

BORING DEPTH 43 ft. GROUND WATER DEPTH: DURING \_\_\_\_\_ COMP. \_\_\_\_\_ DELAYED 19.4 ft. after 24 hrs.

NOTES Well installed. Refer to well data sheet.

GEO TECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS	
5		<p><b>Silty Sand (SM)</b> - orange, damp, low plasticity, w/ gravel sized pieces of quartz - quartz is angular - sample is weathered from schist, some clay found (approximately 10%), micas weathering to white clay minerals</p> <p>- orange, slightly damp, orange grading down to white; fewer clay minerals (approximately 5%), sediment is less consolidated than 0' - 4' section. white material is highly weathered schist, relic cleavages and foliations can barely be discerned</p>					no quartz, orange grades to white. perched 8' - 10' H2O.	
10		<p><b>Schist</b> - white, tan, has weathered to medium grained sands w/ less than 10% silt, wet</p> <p>- mottled tan, brown, weathered, coarse sand to gravel sized, poorly sorted and graded, gravel sized pieces are structurally intact schist. grades to more tan, sand and gravel sized regolith, preferential bands of more competent schist found (dark), dry</p>					tan. orange. white/grey.	
15		<p>- banded tan, orange, white, weathered, coarse sand to gravel sized, white sediments contain larger fragments of schist, dry</p>						
20		<p><b>Silty Sand (SM)</b> - tan, wet, medium grain</p>					last 10' drilled w/ water.	
25		<p><b>Poorly-graded Sand (SP)</b> - mottled white, tan, orange, dry, fine to medium grain, w/ angular, gravel sized schist fragments</p>						
30		<p><b>Silty Sand (SM)</b> - mottled tan, white, dry, clay particles present less than 2%, angular gravel to boulder sized fragments of schist</p>						
35		<p><b>Partially Weathered Rock</b> - brown, orange, saprolite (schist/gneiss contact), zoned</p> <p><b>Gneiss</b> - banded grey, white, competent, relic structures and foliations intact, sugary pegmatic quartz coating on cuttings, prevalent zones of oxidation suggesting fractures, fractures identified parallel to cleavage planes</p>						
40								
45		Bottom of borehole at 43.0 feet.						



# LOG OF TEST BORING

**BORING GWA-29**  
PAGE 1 OF 1

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Wansley

LOCATION Carrollton, Georgia

DATE STARTED 6/21/2011 COMPLETED 6/26/2011 SURF. ELEV. Not Surveyed COORDINATES: \_\_\_\_\_

CONTRACTOR SCS Field Services EQUIPMENT 550X METHOD 3 1/4" Hollow Stem Auger; HQ Casing; HQ Rock Core

DRILLED BY \_\_\_\_\_ LOGGED BY B. Gallagher/D. Brook CHECKED BY \_\_\_\_\_ ANGLE \_\_\_\_\_ BEARING \_\_\_\_\_

BORING DEPTH 54.7 ft. GROUND WATER DEPTH: DURING \_\_\_\_\_ COMP. \_\_\_\_\_ DELAYED 39.8 ft. after 1 hrs.

NOTES Well installed. Refer to well data sheet.

GEO TECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS
0 - 9.5		<b>Sandy Silt (ML)</b> - brown, damp					Auger Refusal at 9.5 ft.
9.5 - 14.7		<b>Silty Sand (SM)</b> - tan, damp					
14.7 - 19.7		<b>Poorly-graded Sand (SP)</b> - tan and white, damp					
19.7 - 24.7		<b>Gneiss</b> - gray and pink, medium to fine grain, soft, highly weathered - quartz bands at 10.6 ft - stained joint at 11 ft - medium hard, slightly weathered, slightly stained below 11.5 ft - stained joint at 13.2 ft - stained joint at 13.7 ft - hard, slightly weathered, below 15.2 ft - 9 stained joints from 15.7 to 19.7 ft - hard, not weathered, below 19.7 ft - 3 partially healed, slightly stained joints from 20.9 to 24.6 ft - hard, slightly weathered, below 24.3 ft - soft to hard, highly to slightly weathered, with 11 weathered, stained joints from 24.7 to 26.5 ft - hard, slightly weathered, below 26.5 ft - slightly weathered, stained joints from 29.7 to 34.7	RC -1	9.5-14.7	WR-WR-WR (0)	96 (17)	
24.7 - 29.7			RC -2	14.7-19.7	WR-WR-WR (0)	100 (52)	
29.7 - 34.7			RC -3	19.7-24.7	WR-WR-WR (0)	100 (96)	
34.7 - 39.7			RC -4	24.7-29.7	WR-WR-WR (0)	100 (42)	
39.7 - 44.7			RC -5	29.7-34.7	WR-WR-WR (0)	100 (74)	
44.7 - 49.7			RC -6	34.7-39.7	WR-WR-WR (0)	100 (60)	
49.7 - 54.7			RC -7	39.7-44.7	WR-WR-WR (0)	100 (68)	Lost circulation at 39.5 ft. 50% return beginning at 40 ft. Lost circulation at 40.5 ft.
			RC -8	44.7-49.7	WR-WR-WR (0)	90 (16)	
			RC -9	49.7-54.7	WR-WR-WR (0)		
Bottom of borehole at 54.7 feet.							



# LOG OF TEST BORING

**BORING GWC-31**  
PAGE 1 OF 1

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Wansley  
LOCATION Carrollton, Georgia

DATE STARTED 6/20/2011 COMPLETED 6/21/2011 SURF. ELEV. Not Surveyed COORDINATES: \_\_\_\_\_

CONTRACTOR SCS Field Services EQUIPMENT 550X METHOD 3 1/4" Hollow Stem Auger; HQ Casing; HQ Rock Core

DRILLED BY \_\_\_\_\_ LOGGED BY B. Gallagher CHECKED BY \_\_\_\_\_ ANGLE \_\_\_\_\_ BEARING \_\_\_\_\_

BORING DEPTH 34.2 ft. GROUND WATER DEPTH: DURING \_\_\_\_\_ COMP. \_\_\_\_\_ DELAYED \_\_\_\_\_

NOTES Well installed. Refer to well data sheet.

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS	
0 - 4.7		<b>Silty Sand (SM)</b> - brown, damp, medium dense, fine grain						
4.7 - 5.9		<b>Sandy Silt (ML)</b> - tan, damp, medium dense						
5.9 - 9.2		<b>Gneiss</b> - pink and white, medium to fine grain, hard, slightly weathered, granitoid; with 7 stained slightly weathered joints from 4.7 to 7.4 ft. - 0.25" quartz vein at 5.9 ft. - 4 coated joints from 7.4 to 9.2 ft.	RC -1	4.7-9.2	WR-WR-WR (0)	96 (49)	Auger refusal at 4.7 ft.	
9.2 - 11.6		- stained, semi-vertical joint from 11.6 to 12.2 ft.	RC -2	9.2-14.2	WR-WR-WR (0)	100 (84)		
11.6 - 14.2		- pink and gray, no weathering below 14.2 ft - horizontal, slightly weathered joint at 14.8 ft - horizontal, slightly weathered joint at 15.2 ft	RC -3	14.2-19.2	WR-WR-WR (0)	100 (86)		
14.2 - 20.0		- sub-horizontal, slightly weathered joint at 17.6 ft - sub-horizontal, slightly weathered joint at 18.4 ft						
20.0 - 21.5		- slightly weathered, stained joint at 20 ft - slightly weathered with 0.1 ft quartz lens from 21 to 21.5 ft - healed joint at 22.2 ft.	RC -4	19.2-24.2	WR-WR-WR (0)	100 (90)		Lost Circulation at 21 ft.
21.5 - 23.9		- slightly weathered, stained joint at 23.9 ft						
23.9 - 25.4		- slightly weathered, stained joint at 25.4 ft	RC -5	24.2-29.2	WR-WR-WR (0)	100 (88)		
25.4 - 26.2		- slightly weathered from 26.2 to 26.7 ft						
26.2 - 27.2		- slightly weathered, stained joint at 27.2 ft						
27.2 - 30.3		- slightly weathered from 30.3 to 31.9 ft						
30.3 - 31.3		- slightly weathered, medium hard joint at 31.3 ft	RC -6	29.2-34.2	WR-WR-WR (0)	100 (76)		
31.3 - 32.2		- stained, near vertical joint from 32.2 to 32.5 ft.						
32.2 - 34.2		Bottom of borehole at 34.2 feet.						





# LOG OF TEST BORING

**BORING GWC-32**  
PAGE 1 OF 1

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Wansley  
LOCATION Carrollton, Georgia

DATE STARTED 2/18/2011 COMPLETED 2/18/2011 SURF. ELEV. Not Surveyed COORDINATES: \_\_\_\_\_

CONTRACTOR Boart Longyear EQUIPMENT \_\_\_\_\_ METHOD Rotosonic

DRILLED BY \_\_\_\_\_ LOGGED BY C. Sellers CHECKED BY \_\_\_\_\_ ANGLE \_\_\_\_\_ BEARING \_\_\_\_\_

BORING DEPTH 30 ft. GROUND WATER DEPTH: DURING \_\_\_\_\_ COMP. \_\_\_\_\_ DELAYED \_\_\_\_\_

NOTES Well installed. Refer to well data sheet.

SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION		COMMENTS
			Weak	Moderate Strong	
		<b>Clayey Sand (SC)</b> - light red / moderate reddish orange (10R 6/6)			
5		<b>Clayey Sand (SC)</b> - weak red / pale reddish brown (10R 5/4) with weathered SCHIST gravel			
10		<b>Clayey Sand (SC)</b> - yellowish brown / moderate yellowish brown (10YR 5/4) damp			
		<b>Clayey Sand (SC)</b> - brown (7.5YR 4/2) damp			
15		<b>Silty Sand (SM)</b> - light gray (10YR 7/1) with large SCHIST gravel			
20		<b>SCHIST</b> - and gray (10YR 5/1) slightly weathered, heavy red stain			
25					
30		<b>GNEISS</b> - and gray (10YR 5/1)			
		Bottom of borehole at 30.0 feet.			
35					
40					

**ATTACHMENT B – Laboratory Analytical Reports & Purge Data Sheets**

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# 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: 400-150978-1

TestAmerica Sample Delivery Group: ASD

Client Project/Site: Plant Wansley

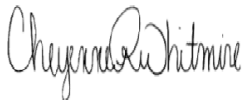
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

3/23/2018 2:59:33 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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# Detection Summary

Client: Southern Company  
Project/Site: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

## Client Sample ID: PB-3 LONG ISLAND GNEISS 56-57'

Lab Sample ID: 400-150978-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	11		4.1	1.3	mg/Kg	1		9056	Soluble

## Client Sample ID: PB-4 LONG ISLAND GNEISS 49-50'

Lab Sample ID: 400-150978-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	9.3		3.9	1.3	mg/Kg	1		9056	Soluble

## Client Sample ID: PB-8 SCHIST/AMPHIBOLITE 123-124'

Lab Sample ID: 400-150978-3

No Detections.

## Client Sample ID: PB-9 SCHIST/AMPHIBOLITE 65-66'

Lab Sample ID: 400-150978-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.4	J	3.9	1.3	mg/Kg	1		9056	Soluble

## Client Sample ID: APC-5D QUARTZITE 90-91'

Lab Sample ID: 400-150978-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

---

Method	Method Description	Protocol	Laboratory
9056	Anions, Ion Chromatography	SW846	TAL PEN

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**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

Client: Southern Company  
Project/Site: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-150978-1	PB-3 LONG ISLAND GNEISS 56-57'	Solid	03/16/18 09:55	03/17/18 08:24
400-150978-2	PB-4 LONG ISLAND GNEISS 49-50'	Solid	03/16/18 10:00	03/17/18 08:24
400-150978-3	PB-8 SCHIST/AMPHIBOLITE 123-124'	Solid	03/16/18 10:05	03/17/18 08:24
400-150978-4	PB-9 SCHIST/AMPHIBOLITE 65-66'	Solid	03/16/18 10:10	03/17/18 08:24
400-150978-5	APC-5D QUARTZITE 90-91'	Solid	03/16/18 10:15	03/17/18 08:24

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

# Client Sample Results

Client: Southern Company  
Project/Site: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

**Client Sample ID: PB-3 LONG ISLAND GNEISS 56-57'**

**Lab Sample ID: 400-150978-1**

Date Collected: 03/16/18 09:55

Matrix: Solid

Date Received: 03/17/18 08:24

**Method: 9056 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	11		4.1	1.3	mg/Kg			03/22/18 00:17	1

**Client Sample ID: PB-4 LONG ISLAND GNEISS 49-50'**

**Lab Sample ID: 400-150978-2**

Date Collected: 03/16/18 10:00

Matrix: Solid

Date Received: 03/17/18 08:24

**Method: 9056 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	9.3		3.9	1.3	mg/Kg			03/22/18 01:26	1

**Client Sample ID: PB-8 SCHIST/AMPHIBOLITE 123-124'**

**Lab Sample ID: 400-150978-3**

Date Collected: 03/16/18 10:05

Matrix: Solid

Date Received: 03/17/18 08:24

**Method: 9056 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.3		4.0	1.3	mg/Kg			03/22/18 01:48	1

**Client Sample ID: PB-9 SCHIST/AMPHIBOLITE 65-66'**

**Lab Sample ID: 400-150978-4**

Date Collected: 03/16/18 10:10

Matrix: Solid

Date Received: 03/17/18 08:24

**Method: 9056 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	3.4	J	3.9	1.3	mg/Kg			03/22/18 02:11	1

**Client Sample ID: APC-5D QUARTZITE 90-91'**

**Lab Sample ID: 400-150978-5**

Date Collected: 03/16/18 10:15

Matrix: Solid

Date Received: 03/17/18 08:24

**Method: 9056 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.3		4.1	1.3	mg/Kg			03/22/18 02:34	1



# Definitions/Glossary

Client: Southern Company  
Project/Site: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

## 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.

## 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: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

**Client Sample ID: PB-3 LONG ISLAND GNEISS 56-57'**

**Lab Sample ID: 400-150978-1**

**Date Collected: 03/16/18 09:55**

**Matrix: Solid**

**Date Received: 03/17/18 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			390993	03/21/18 17:04	TAJ	TAL PEN
Soluble	Analysis	9056		1	391064	03/22/18 00:17	TAJ	TAL PEN

**Client Sample ID: PB-4 LONG ISLAND GNEISS 49-50'**

**Lab Sample ID: 400-150978-2**

**Date Collected: 03/16/18 10:00**

**Matrix: Solid**

**Date Received: 03/17/18 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			390993	03/21/18 17:04	TAJ	TAL PEN
Soluble	Analysis	9056		1	391064	03/22/18 01:26	TAJ	TAL PEN

**Client Sample ID: PB-8 SCHIST/AMPHIBOLITE 123-124'**

**Lab Sample ID: 400-150978-3**

**Date Collected: 03/16/18 10:05**

**Matrix: Solid**

**Date Received: 03/17/18 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			390993	03/21/18 17:04	TAJ	TAL PEN
Soluble	Analysis	9056		1	391064	03/22/18 01:48	TAJ	TAL PEN

**Client Sample ID: PB-9 SCHIST/AMPHIBOLITE 65-66'**

**Lab Sample ID: 400-150978-4**

**Date Collected: 03/16/18 10:10**

**Matrix: Solid**

**Date Received: 03/17/18 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			390993	03/21/18 17:04	TAJ	TAL PEN
Soluble	Analysis	9056		1	391064	03/22/18 02:11	TAJ	TAL PEN

**Client Sample ID: APC-5D QUARTZITE 90-91'**

**Lab Sample ID: 400-150978-5**

**Date Collected: 03/16/18 10:15**

**Matrix: Solid**

**Date Received: 03/17/18 08:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			390993	03/21/18 18:05	TAJ	TAL PEN
Soluble	Analysis	9056		1	391064	03/22/18 02:34	TAJ	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: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

## HPLC/IC

### Leach Batch: 390993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150978-1	PB-3 LONG ISLAND GNEISS 56-57'	Soluble	Solid	DI Leach	
400-150978-2	PB-4 LONG ISLAND GNEISS 49-50'	Soluble	Solid	DI Leach	
400-150978-3	PB-8 SCHIST/AMPHIBOLITE 123-124'	Soluble	Solid	DI Leach	
400-150978-4	PB-9 SCHIST/AMPHIBOLITE 65-66'	Soluble	Solid	DI Leach	
400-150978-5	APC-5D QUARTZITE 90-91'	Soluble	Solid	DI Leach	
MB 400-390993/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 400-390993/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 400-390993/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
400-150978-1 MS	PB-3 LONG ISLAND GNEISS 56-57'	Soluble	Solid	DI Leach	
400-150978-1 MSD	PB-3 LONG ISLAND GNEISS 56-57'	Soluble	Solid	DI Leach	

### Analysis Batch: 391064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150978-1	PB-3 LONG ISLAND GNEISS 56-57'	Soluble	Solid	9056	390993
400-150978-2	PB-4 LONG ISLAND GNEISS 49-50'	Soluble	Solid	9056	390993
400-150978-3	PB-8 SCHIST/AMPHIBOLITE 123-124'	Soluble	Solid	9056	390993
400-150978-4	PB-9 SCHIST/AMPHIBOLITE 65-66'	Soluble	Solid	9056	390993
400-150978-5	APC-5D QUARTZITE 90-91'	Soluble	Solid	9056	390993
MB 400-390993/1-A	Method Blank	Soluble	Solid	9056	390993
LCS 400-390993/2-A	Lab Control Sample	Soluble	Solid	9056	390993
LCSD 400-390993/3-A	Lab Control Sample Dup	Soluble	Solid	9056	390993
400-150978-1 MS	PB-3 LONG ISLAND GNEISS 56-57'	Soluble	Solid	9056	390993
400-150978-1 MSD	PB-3 LONG ISLAND GNEISS 56-57'	Soluble	Solid	9056	390993

# QC Sample Results

Client: Southern Company  
Project/Site: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

## Method: 9056 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-390993/1-A**  
**Matrix: Solid**  
**Analysis Batch: 391064**

**Client Sample ID: Method Blank**  
**Prep Type: Soluble**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.3		4.0	1.3	mg/Kg			03/21/18 23:08	1

**Lab Sample ID: LCS 400-390993/2-A**  
**Matrix: Solid**  
**Analysis Batch: 391064**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Soluble**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	200	203		mg/Kg		101	80 - 120

**Lab Sample ID: LCSD 400-390993/3-A**  
**Matrix: Solid**  
**Analysis Batch: 391064**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Soluble**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	200	204		mg/Kg		102	80 - 120	1	15

**Lab Sample ID: 400-150978-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 391064**

**Client Sample ID: PB-3 LONG ISLAND GNEISS 56-57'**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	11		199	204		mg/Kg		97	80 - 120

**Lab Sample ID: 400-150978-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 391064**

**Client Sample ID: PB-3 LONG ISLAND GNEISS 56-57'**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	11		200	204		mg/Kg		96	80 - 120	0	15



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-150978-1

SDG Number: ASD

**Login Number: 150978**

**List Number: 1**

**Creator: Ott, Tina 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.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.1°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 <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: Plant Wansley

TestAmerica Job ID: 400-150978-1  
SDG: ASD

## 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	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18



# 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: 400-150979-1

TestAmerica Sample Delivery Group: Gypsum Landfill Cells

Client Project/Site: CCR - Plant Wansley

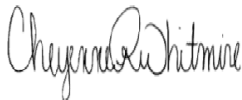
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

4/10/2018 10:06:45 AM

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: 400-150979-1  
SDG: Gypsum Landfill Cells

**Job ID: 400-150979-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-150979-1

#### HPLC/IC

Method(s) 300.0: The method blank for analytical batch 391935 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: The method blank for analytical batch 392174 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

#### Metals

Method(s) 6020: The matrix spike (MS) recoveries for preparation batch 392217 and analytical batch 393106 were outside control limits. Insufficient spike in the matrix spike is suspected. The associated laboratory control sample (LCS) and post digestion spike (PDS) recoveries are within acceptance limits.

Method(s) 6020: The sample size used in the preparation of the matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 392217 and analytical batch 393106 was outside the 20% difference. As the relative percent difference (RPD) calculation is based upon the MS/MSD concentration as opposed to the MS/MSD percent recovery, elevated %RPD values were obtained.

#### General Chemistry

Method(s) SM 2320B: The sample duplicate precision for the following sample associated with analytical batch 391494 was outside control limits: (400-150979-A-2 DU). The associated Laboratory Control Sample(LCS) met acceptance criteria.

# Detection Summary

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

## Client Sample ID: GWA-29

## Lab Sample ID: 400-150979-1

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
Sulfate	5.6		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.0	F1	0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	1.5	F2 F1	0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	1.1	F1	0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	11	F1	0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	28		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	28		1.0	0.98	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: GWA-28

## Lab Sample ID: 400-150979-2

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	0.74	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	0.76		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.66		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	10		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	38		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	38		1.0	0.98	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: GWC-32

## Lab Sample ID: 400-150979-3

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
Sulfate	9.1		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	4.4		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	2.0		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	12		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	60		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	60		1.0	0.98	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: GWC-31

## Lab Sample ID: 400-150979-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	12		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	12		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	3.2		0.13	0.032	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: 400-150979-1  
SDG: Gypsum Landfill Cells

## Client Sample ID: GWC-31 (Continued)

## Lab Sample ID: 400-150979-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	1.8		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	14		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	49		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	49		1.0	0.98	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-150979-5

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
Calcium	0.73		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	0.28		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	3.9		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	2.7		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	12		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	12		1.0	0.98	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: DUP-1

## Lab Sample ID: 400-150979-6

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
Sulfate	0.73	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Magnesium	0.74		0.13	0.032	mg/L	5		6020	Total Recoverable
Potassium	0.64		0.25	0.11	mg/L	5		6020	Total Recoverable
Sodium	9.8		0.25	0.17	mg/L	5		6020	Total Recoverable
Alkalinity, Total	27		1.0	0.98	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	27		1.0	0.98	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: FB-1-3-16-18

## Lab Sample ID: 400-150979-7

No Detections.

## Client Sample ID: EB-1-3-16-18

## Lab Sample ID: 400-150979-8

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: 400-150979-1  
SDG: Gypsum Landfill Cells

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2320B	Alkalinity	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: 400-150979-1  
SDG: Gypsum Landfill Cells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-150979-1	GWA-29	Water	03/15/18 12:37	03/17/18 08:24
400-150979-2	GWA-28	Water	03/15/18 14:56	03/17/18 08:24
400-150979-3	GWC-32	Water	03/16/18 09:22	03/17/18 08:24
400-150979-4	GWC-31	Water	03/16/18 10:31	03/17/18 08:24
400-150979-5	GWC-27	Water	03/16/18 12:11	03/17/18 08:24
400-150979-6	DUP-1	Water	03/15/18 00:00	03/17/18 08:24
400-150979-7	FB-1-3-16-18	Water	03/16/18 09:35	03/17/18 08:24
400-150979-8	EB-1-3-16-18	Water	03/16/18 12:35	03/17/18 08:24

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

**Client Sample ID: GWA-29**

**Date Collected: 03/15/18 12:37**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-1**

**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			03/29/18 21:18	1
Sulfate	5.6		1.0	0.70	mg/L			03/29/18 21:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	4.0	F1	0.25	0.13	mg/L		03/31/18 12:31	04/07/18 01:43	5
Magnesium	1.5	F2 F1	0.13	0.032	mg/L		03/31/18 12:31	04/07/18 01:43	5
Potassium	1.1	F1	0.25	0.11	mg/L		03/31/18 12:31	04/07/18 01:43	5
Sodium	11	F1	0.25	0.17	mg/L		03/31/18 12:31	04/07/18 01:43	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	28		1.0	0.98	mg/L			03/21/18 16:40	1
Bicarbonate Alkalinity as CaCO3	28		1.0	0.98	mg/L			03/21/18 16:40	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/21/18 16:40	1

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
 SDG: Gypsum Landfill Cells

**Client Sample ID: GWA-28**  
**Date Collected: 03/15/18 14:56**  
**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-2**  
**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			03/29/18 19:24	1
Sulfate	0.74	J	1.0	0.70	mg/L			03/29/18 19:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2.5		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:28	5
Magnesium	0.76		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:28	5
Potassium	0.66		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:28	5
Sodium	10		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:28	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	38		1.0	0.98	mg/L			03/26/18 12:25	1
Bicarbonate Alkalinity as CaCO3	38		1.0	0.98	mg/L			03/26/18 12:25	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:25	1



# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

**Client Sample ID: GWC-32**

**Date Collected: 03/16/18 09:22**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-3**

**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			03/29/18 21:41	1
Sulfate	9.1		1.0	0.70	mg/L			03/29/18 21:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	14		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:32	5
Magnesium	4.4		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:32	5
Potassium	2.0		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:32	5
Sodium	12		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:32	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	60		1.0	0.98	mg/L			03/26/18 12:34	1
Bicarbonate Alkalinity as CaCO3	60		1.0	0.98	mg/L			03/26/18 12:34	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

**Client Sample ID: GWC-31**

**Date Collected: 03/16/18 10:31**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-4**

**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			03/29/18 22:04	1
Sulfate	12		1.0	0.70	mg/L			03/29/18 22:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	12		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:37	5
Magnesium	3.2		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:37	5
Potassium	1.8		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:37	5
Sodium	14		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:37	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	49		1.0	0.98	mg/L			03/26/18 12:39	1
Bicarbonate Alkalinity as CaCO3	49		1.0	0.98	mg/L			03/26/18 12:39	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:39	1

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

**Client Sample ID: GWC-27**

**Date Collected: 03/16/18 12:11**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-5**

**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			03/29/18 22:27	1
Sulfate	<0.70		1.0	0.70	mg/L			03/29/18 22:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.73		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:41	5
Magnesium	0.28		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:41	5
Potassium	3.9		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:41	5
Sodium	2.7		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:41	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	12		1.0	0.98	mg/L			03/26/18 12:43	1
Bicarbonate Alkalinity as CaCO3	12		1.0	0.98	mg/L			03/26/18 12:43	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:43	1

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
 SDG: Gypsum Landfill Cells

**Client Sample ID: DUP-1**  
**Date Collected: 03/15/18 00:00**  
**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-6**  
**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			03/29/18 22:49	1
Sulfate	0.73	J	1.0	0.70	mg/L			03/29/18 22:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2.5		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:46	5
Magnesium	0.74		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:46	5
Potassium	0.64		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:46	5
Sodium	9.8		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:46	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	27		1.0	0.98	mg/L			03/26/18 12:49	1
Bicarbonate Alkalinity as CaCO3	27		1.0	0.98	mg/L			03/26/18 12:49	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:49	1

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
 SDG: Gypsum Landfill Cells

**Client Sample ID: FB-1-3-16-18**

**Lab Sample ID: 400-150979-7**

**Date Collected: 03/16/18 09:35**

**Matrix: Water**

**Date Received: 03/17/18 08:24**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			03/29/18 23:12	1
Sulfate	<0.70		1.0	0.70	mg/L			03/29/18 23:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:50	5
Magnesium	<0.032		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:50	5
Potassium	<0.11		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:50	5
Sodium	<0.17		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:50	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			03/26/18 12:53	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:53	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:53	1

# Client Sample Results

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

TestAmerica Job ID: 400-150979-1  
 SDG: Gypsum Landfill Cells

**Client Sample ID: EB-1-3-16-18**

**Lab Sample ID: 400-150979-8**

**Date Collected: 03/16/18 12:35**

**Matrix: Water**

**Date Received: 03/17/18 08:24**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			03/29/18 23:35	1
Sulfate	<0.70		1.0	0.70	mg/L			03/29/18 23:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 02:55	5
Magnesium	<0.032		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 02:55	5
Potassium	<0.11		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 02:55	5
Sodium	<0.17		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 02:55	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			03/26/18 12:58	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:58	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:58	1

# Definitions/Glossary

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill 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.

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

### General Chemistry

Qualifier	Qualifier Description
F3	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	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: 400-150979-1  
SDG: Gypsum Landfill Cells

## Client Sample ID: GWA-29

Date Collected: 03/15/18 12:37

Date Received: 03/17/18 08:24

## Lab Sample ID: 400-150979-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 21:18	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 01:43	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391011	03/21/18 16:40	BAB	TAL PEN

## Client Sample ID: GWA-28

Date Collected: 03/15/18 14:56

Date Received: 03/17/18 08:24

## Lab Sample ID: 400-150979-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 19:24	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:28	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:25	BAB	TAL PEN

## Client Sample ID: GWC-32

Date Collected: 03/16/18 09:22

Date Received: 03/17/18 08:24

## Lab Sample ID: 400-150979-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 21:41	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:32	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:34	BAB	TAL PEN

## Client Sample ID: GWC-31

Date Collected: 03/16/18 10:31

Date Received: 03/17/18 08:24

## Lab Sample ID: 400-150979-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 22:04	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:37	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:39	BAB	TAL PEN

## Client Sample ID: GWC-27

Date Collected: 03/16/18 12:11

Date Received: 03/17/18 08:24

## Lab Sample ID: 400-150979-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 22:27	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

**Client Sample ID: GWC-27**

**Date Collected: 03/16/18 12:11**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:41	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:43	BAB	TAL PEN

**Client Sample ID: DUP-1**

**Date Collected: 03/15/18 00:00**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 22:49	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:46	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:49	BAB	TAL PEN

**Client Sample ID: FB-1-3-16-18**

**Date Collected: 03/16/18 09:35**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 23:12	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:50	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:53	BAB	TAL PEN

**Client Sample ID: EB-1-3-16-18**

**Date Collected: 03/16/18 12:35**

**Date Received: 03/17/18 08:24**

**Lab Sample ID: 400-150979-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	392174	03/29/18 23:35	JAW	TAL PEN
Total Recoverable	Prep	3005A			392217	03/31/18 12:31	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	393106	04/07/18 02:55	DRE	TAL PEN
Total/NA	Analysis	SM 2320B		1	391494	03/26/18 12:58	BAB	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: 400-150979-1  
SDG: Gypsum Landfill Cells

## HPLC/IC

### Analysis Batch: 392174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150979-1	GWA-29	Total/NA	Water	300.0	
400-150979-2	GWA-28	Total/NA	Water	300.0	
400-150979-3	GWC-32	Total/NA	Water	300.0	
400-150979-4	GWC-31	Total/NA	Water	300.0	
400-150979-5	GWC-27	Total/NA	Water	300.0	
400-150979-6	DUP-1	Total/NA	Water	300.0	
400-150979-7	FB-1-3-16-18	Total/NA	Water	300.0	
400-150979-8	EB-1-3-16-18	Total/NA	Water	300.0	
MB 400-392174/20	Method Blank	Total/NA	Water	300.0	
LCS 400-392174/21	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-392174/22	Lab Control Sample Dup	Total/NA	Water	300.0	
400-150979-2 MS	GWA-28	Total/NA	Water	300.0	
400-150979-2 MSD	GWA-28	Total/NA	Water	300.0	

## Metals

### Prep Batch: 392217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150979-1	GWA-29	Total Recoverable	Water	3005A	
400-150979-2	GWA-28	Total Recoverable	Water	3005A	
400-150979-3	GWC-32	Total Recoverable	Water	3005A	
400-150979-4	GWC-31	Total Recoverable	Water	3005A	
400-150979-5	GWC-27	Total Recoverable	Water	3005A	
400-150979-6	DUP-1	Total Recoverable	Water	3005A	
400-150979-7	FB-1-3-16-18	Total Recoverable	Water	3005A	
400-150979-8	EB-1-3-16-18	Total Recoverable	Water	3005A	
MB 400-392217/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-392217/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-150979-1 MS	GWA-29	Total Recoverable	Water	3005A	
400-150979-1 MSD	GWA-29	Total Recoverable	Water	3005A	

### Analysis Batch: 393106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150979-1	GWA-29	Total Recoverable	Water	6020	392217
400-150979-2	GWA-28	Total Recoverable	Water	6020	392217
400-150979-3	GWC-32	Total Recoverable	Water	6020	392217
400-150979-4	GWC-31	Total Recoverable	Water	6020	392217
400-150979-5	GWC-27	Total Recoverable	Water	6020	392217
400-150979-6	DUP-1	Total Recoverable	Water	6020	392217
400-150979-7	FB-1-3-16-18	Total Recoverable	Water	6020	392217
400-150979-8	EB-1-3-16-18	Total Recoverable	Water	6020	392217
MB 400-392217/1-A ^5	Method Blank	Total Recoverable	Water	6020	392217
LCS 400-392217/2-A	Lab Control Sample	Total Recoverable	Water	6020	392217
400-150979-1 MS	GWA-29	Total Recoverable	Water	6020	392217
400-150979-1 MSD	GWA-29	Total Recoverable	Water	6020	392217

# QC Association Summary

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

## General Chemistry

### Analysis Batch: 391011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150979-1	GWA-29	Total/NA	Water	SM 2320B	
MB 400-391011/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-391011/5	Lab Control Sample	Total/NA	Water	SM 2320B	
400-150932-I-4 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 391494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150979-2	GWA-28	Total/NA	Water	SM 2320B	
400-150979-3	GWC-32	Total/NA	Water	SM 2320B	
400-150979-4	GWC-31	Total/NA	Water	SM 2320B	
400-150979-5	GWC-27	Total/NA	Water	SM 2320B	
400-150979-6	DUP-1	Total/NA	Water	SM 2320B	
400-150979-7	FB-1-3-16-18	Total/NA	Water	SM 2320B	
400-150979-8	EB-1-3-16-18	Total/NA	Water	SM 2320B	
MB 400-391494/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 400-391494/5	Lab Control Sample	Total/NA	Water	SM 2320B	
400-150979-2 DU	GWA-28	Total/NA	Water	SM 2320B	

# QC Sample Results

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-392174/20**  
**Matrix: Water**  
**Analysis Batch: 392174**

**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			03/29/18 18:16	1
Sulfate	<0.70		1.0	0.70	mg/L			03/29/18 18:16	1

**Lab Sample ID: LCS 400-392174/21**  
**Matrix: Water**  
**Analysis Batch: 392174**

**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	9.63		mg/L		96	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-392174/22**  
**Matrix: Water**  
**Analysis Batch: 392174**

**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
Sulfate	10.0	10.2		mg/L		102	90 - 110	1	15

**Lab Sample ID: 400-150979-2 MS**  
**Matrix: Water**  
**Analysis Batch: 392174**

**Client Sample ID: GWA-28**  
**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	10.7		mg/L		94	80 - 120
Sulfate	0.74	J	10.0	10.8		mg/L		100	80 - 120

**Lab Sample ID: 400-150979-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 392174**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.3		10.0	10.7		mg/L		94	80 - 120	0	20
Sulfate	0.74	J	10.0	10.8		mg/L		101	80 - 120	1	20

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

**Lab Sample ID: MB 400-392217/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 393106**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 392217**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		03/31/18 12:31	04/07/18 00:13	5
Magnesium	<0.032		0.13	0.032	mg/L		03/31/18 12:31	04/07/18 00:13	5
Potassium	<0.11		0.25	0.11	mg/L		03/31/18 12:31	04/07/18 00:13	5
Sodium	<0.17		0.25	0.17	mg/L		03/31/18 12:31	04/07/18 00:13	5

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-150979-1  
SDG: Gypsum Landfill Cells

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

**Lab Sample ID: LCS 400-392217/2-A**  
**Matrix: Water**  
**Analysis Batch: 393106**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 392217**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	5.00	4.52		mg/L		90	80 - 120
Magnesium	5.00	4.40		mg/L		88	80 - 120
Potassium	5.00	4.25		mg/L		85	80 - 120
Sodium	5.00	4.42		mg/L		88	80 - 120

**Lab Sample ID: 400-150979-1 MS**  
**Matrix: Water**  
**Analysis Batch: 393106**

**Client Sample ID: GWA-29**  
**Prep Type: Total Recoverable**  
**Prep Batch: 392217**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Calcium	4.0	F1	5.00	7.18	F1	mg/L		63	75 - 125
Magnesium	1.5	F2 F1	5.00	4.96	F1	mg/L		69	75 - 125
Potassium	1.1	F1	5.00	4.64	F1	mg/L		70	75 - 125
Sodium	11	F1	5.00	14.3	F1	mg/L		67	75 - 125

**Lab Sample ID: 400-150979-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 393106**

**Client Sample ID: GWA-29**  
**Prep Type: Total Recoverable**  
**Prep Batch: 392217**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium	4.0	F1	5.00	8.45		mg/L		88	75 - 125	16	20
Magnesium	1.5	F2 F1	5.00	6.18	F2	mg/L		94	75 - 125	22	20
Potassium	1.1	F1	5.00	5.68		mg/L		91	75 - 125	20	20
Sodium	11	F1	5.00	15.3		mg/L		87	75 - 125	7	20

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 400-391011/4**  
**Matrix: Water**  
**Analysis Batch: 391011**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	<0.98		1.0	0.98	mg/L			03/21/18 15:03	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/21/18 15:03	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/21/18 15:03	1

**Lab Sample ID: LCS 400-391011/5**  
**Matrix: Water**  
**Analysis Batch: 391011**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Alkalinity, Total	100	102		mg/L		102	80 - 120

**Lab Sample ID: 400-150932-I-4 DU**  
**Matrix: Water**  
**Analysis Batch: 391011**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Alkalinity, Total	490		585		mg/L		18	20

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-150979-1  
 SDG: Gypsum Landfill Cells

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: 400-150932-I-4 DU**  
**Matrix: Water**  
**Analysis Batch: 391011**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Bicarbonate Alkalinity as CaCO3	490		585		mg/L		18	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20

**Lab Sample ID: MB 400-391494/4**  
**Matrix: Water**  
**Analysis Batch: 391494**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Alkalinity, Total	<0.98		1.0	0.98	mg/L			03/26/18 12:05	1
Bicarbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:05	1
Carbonate Alkalinity as CaCO3	<0.98		1.0	0.98	mg/L			03/26/18 12:05	1

**Lab Sample ID: LCS 400-391494/5**  
**Matrix: Water**  
**Analysis Batch: 391494**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

**Lab Sample ID: 400-150979-2 DU**  
**Matrix: Water**  
**Analysis Batch: 391494**

**Client Sample ID: GWA-28**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Alkalinity, Total	38		26.7	F3	mg/L		35	20
Bicarbonate Alkalinity as CaCO3	38		26.7	F3	mg/L		35	20
Carbonate Alkalinity as CaCO3	<0.98		<0.98		mg/L		NC	20



CHAIN OF CUSTODY RECORD

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P		P P		1 - HCl, ≤6°C 2 - H <sub>2</sub> SO <sub>4</sub> , ≤6°C 3 - HNO <sub>3</sub> 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C 7 - ≤6°C not frozen	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		CONTAINER TYPE:		PRESERVATION:			
241 Ralph McGill Blvd SE B10185		3 7		3 7			
Atlanta, GA 30308		# of					
404-506-7239		CONTAINERS					
REPORT TO:		C O N T A I N E R S					
Evan Perry		↓					
REQUESTED COMPLETION DATE:		PO #:					
PROJECT NAME/STATE:		ALK (bicarbonate, carbonate, total)					
Plant Yates Phase II - Additional Site Characterization		Ca, Mg, Na, K					
PROJECT #:		Sulfate, Chloride					
Phase 2 CCR							
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	RELINQUISHED BY:	DATE/TIME:
3-15-18	1237	GW	X	X	GW-29	<i>[Signature]</i>	3-16-18 1450
3-15-18	1456	GW	X	X	GW-28		
3-16-18	0922	GW	X	X	GW-32		
3-16-18	1031	GW	X	X	GW-31		
3-16-18	1211	GW	X	X	GW-27		
3-15-18	-	GW	X	X	Dup-1		
3-16-18	0935	GW	X	X	FB-13-16-18		
3-16-18	1235	W	X	X	EB-13-16-18		
SAMPLED BY AND TITLE:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
Evan Walker		see above		<i>[Signature]</i>		3-16-18 1450	
RECEIVED BY:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
<i>[Signature]</i>		3/16/18 1450		<i>[Signature]</i>		3/16/18 1630	
RECEIVED BY LAB:		DATE/TIME:		COURIER		CLIENT OTHER FS	
<i>[Signature]</i>		3-17-18 0824		USPS		Cooler ID:	
pH checked:		Temperature:		Custody Seal:		Cooler ID:	
NA		4.1°C IRB		Intact Broken Not Present		Cooler ID:	



COC - Plant Wansley Landfill



## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-150979-1  
SDG Number: Gypsum Landfill Cells

**Login Number: 150979**

**List Number: 1**

**Creator: Ott, Tina 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	4.4°C IR8
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: 400-150979-1  
 SDG: Gypsum Landfill 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	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18 *
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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

**Georgia Power Company**  
**Plant Wansley CCR Landfill**  
PERMIT #: 074-005D(LI)  
Heard County

**Alternate Source Demonstration**

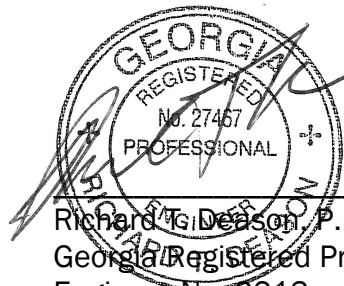


## Certification Statement

I hereby certify that the information used in this alternate source demonstration for the CCR Unit located at Georgia Power's Plant Wansley located at 1371 Liberty Church Road, Carrollton, Georgia, and designated as the Coal Combustion By-Product Disposal Facility, is accurate pursuant to the requirements of 40 CFR §257.94(e)(2).



\_\_\_\_\_  
Evan B. Perry, P.G.  
Georgia Registered Professional  
Geologist, No. 1744  
Originator



\_\_\_\_\_  
Richard G. Deason, P.E.  
Georgia Registered Professional  
Engineer No. 2213  
Reviewer

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Figure 2 – Plant Wansley CCR September 2018 Potentiometric Surface Map

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Figure 4 – Conductivity vs Total Dissolved Solids Time Series Plot for GWC-23

Appendices

Appendix A – In-Situ Operators Manual, SmarTROLL MP Handheld Instrument



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## SECTION 1 Introduction

This document presents an alternate source demonstration (ASD) for statistically significant increases (SSIs) as identified in the analysis of data collected during the second 2018 semi-annual monitoring event. This ASD has been prepared pursuant to 40 CFR 257.94(e)(2), which states that “the owner/operator may demonstrate that a source other than the coal combustion residual (CCR) unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.”

Georgia Power Company (GPC) – Plant Wansley Coal Combustion Residual (CCR) Landfill (the site) is located in northeast Heard County and southeast Carroll County on Liberty Church Road, approximately 12 miles southeast of the City of Carrollton. The plant property encompasses approximately 5,100 acres and the landfill is permitted to operate by the Georgia Environmental Protection Division (EPD) [Permit No. 074-005D(LI)]. The disposal facility is comprised of three cells within an approximate 73-acre disposal footprint. Figure 1, Plant Wansley CCR Landfill Site Location Map, depicts the site location referenced to regional landmarks. The facility has received only flue gas desulfurization gypsum waste from GPC – Plant Wansley to date, however a recently approved permit modification will allow for all forms of CCR to be disposed in the future.

In accordance with the United States Environmental Protection Agency (USEPA) CCR rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR21302-21501, April 17, 2015), the facility prepared the *2018 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at the site 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. In that report, SSIs were identified as follows:

- pH: GWC-10 and GWC-18
- Total Dissolved Solids: GWC-23

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## SECTION 2

### Alternate Source Demonstration

As allowed by §257.94(e)(2), the site may demonstrate that a source other than the CCR unit caused the SSI for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. This report demonstrates an alternate source for SSIs of constituents included in Appendix III of 40 CFR §257 identified following analysis of the third detection monitoring event data. SSIs were identified for three groundwater monitoring network wells (GWC-10, GWC-18, and GWC-23). There are conditions unique to each SSI. Therefore, the following sections provide specific demonstrations, by well, to demonstrate that the site is not the source of the SSI. A recent potentiometric surface map is provided for reference as Figure 2, Plant Wansley CCR Landfill September 2018 Potentiometric Surface Map.

#### 2.1 GWC-10 and GWC-18 (pH)

##### 2.1.1 SSI Identification

Field measurements (pH) were identified in the *2018 Annual Groundwater Monitoring and Corrective Action Report* as SSIs at GWC-10 and GWC-18. Final readings of 5.50 and 5.77 Standard Units (S.U.) at GWC-10 and GWC-18, respectively were reported for the samples collected during the September 2018 detection monitoring event. These readings were below the respective lower prediction limits of 5.62 and 5.80 S.U. for GWC-10 and GWC-18.

##### 2.1.2 Data Review

Background monitoring was completed from 2016 through 2017 and detection monitoring continues through 2018. As shown in Figure 3, pH Box & Whiskers Plot the median value of observed pH at GWC-10 from background and detection monitoring was calculated to be 6.32 S.U. with a minimum value of 5.51 S.U. and a maximum value of 6.69 S.U. The median value of observed pH at GWC-18 from background and detection monitoring was calculated to be 5.98 S.U. with a minimum value of 5.77 S.U. and a maximum value of 6.07 S.U.

##### 2.1.3 Alternate Source Review

All field readings for pH have been made with smarTROLL multiparameter water quality meters manufactured by In-Situ. Based on a review of page 10 of the equipment's user manual, the pH sensor specifications states that the accuracy of the sensor is +/- 0.1 pH unit from 0 to 12 pH units. Therefore, the observed pH value at GWC-10 (5.50 S.U.) during the September monitoring event and the lower prediction limit of 5.62 S.U. are within the overlapping ranges of accuracy. The pH value of 5.77 S.U. reported at GWC-18 is not significantly different than its lower limit if 5.80 S.U. (i.e. the meter is not considered accurate to the hundredths decimal place and a difference of 0.03 pH units cannot be considered significant). The smarTROLL user manual is included in Attachment A.

All other Appendix III data collected from this well were within historical concentration ranges and statistical limits. The relatively low pH levels measured during this event may be related to slightly greater background variability than what was characterized during background monitoring.

#### 2.1.4 Summary and Recommendations

The smarTROLL pH probe sensor specifications meet the EPA's requirements of an accuracy of 0.1 S.U., have a range of 0 to 14, and are equipped with a temperature-compensation adjustment. Future statistical analysis should take into account the accuracy of the smarTROLL (i.e. ±0.1 pH unit rather than ±0.01 pH unit) and make adjustments to reflect that accuracy. The SSI is due to a natural variation in groundwater quality and error in statistical analysis (i.e. exceedance caused by non-significant figure). The monitoring well should remain in detection monitoring as an alternate source was identified.

## 2.2 GWC-23

### 2.2.1 SSI Identification

Total dissolved solids (TDS) was identified in the *2018 Annual Groundwater Monitoring and Corrective Action Report* as SSIs at this location. The concentration 140 mg/L was reported in the sample collected during the September 2018 detection monitoring event exceeded the site prediction limit of 94 mg/L.

### 2.2.2 Data Review

Prior to the September sampling event the concentration of TDS at GWC-23 ranged from 4 to 54 mg/L showing slight variability during monitoring. Figure 4, Time Series Plot for GWC-23, shows the concentration of TDS over the background and detection monitoring events. The concentration of TDS during the September monitoring event of 140 mg/L is higher than all background and prior detection monitoring events.

### 2.2.3 Alternate Source Review

Quality control procedures included calculating the relative percent difference (RPD) between sample and sample duplicate concentrations. This is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2) / 2} \times 100\%$$

Table 1, Quality Control Data – September 2018, provides the quality control data for the September 2018 sampling event. The RPD values calculated on reported concentrations of TDS for the practical quantitation limit (PQL) ranged from 4.3 to 52.6 percent based on the replicate data (Dup-01, Dup-02, Dup-03, and Dup-04) for samples (GWC-6, GWC-22, GWC-13, and GWC-5, respectively). EPA guidance for data quality assessment recommends a difference of less than 20 percent (EPA, 1989).

Internal laboratory controls (MS/MSD) do not indicate data quality issues and three out of the four replicant data comparisons are within EPA guidance. However, one of the replicant data comparisons (GWC-6 & Dup-01) is well outside of the 20 percent guidance and two other replicant data comparisons (GWC-22 & Dup-02/GWC-13 & Dup-03) are close to the 20 percent (18.2% and 14.9%, respectively) guidance limit.

Slight variations may occur in the field between collection of the parent sample and duplicate sample which could explain the difference in TDS concentration between parent and replicant sample. However, having three out of four replicant samples near or above the EPA guidance could also indicate deficiencies in laboratory analysis process.

Figure 4 shows the concentration of TDS and conductivity for GWC-23 over background and detection monitoring events. The conductivity observed over this time period shows a stable range of 44.6  $\mu\text{S}/\text{cm}$  to 56.06  $\mu\text{S}/\text{cm}$ . Conductivity and TDS are correlated in that conductivity measures the liquid capacity to conduct an electric charge which depends on the dissolved ion concentration which is measured in TDS. Thus, an increase in TDS should correspond to an increase in conductivity and vice versa. The concentration of TDS at GWC-23 for the September sampling event was 140 mg/L which is higher than the range of TDS concentrations from GWC-23 previously mentioned. With an increase in TDS concentration there should be a corresponding increase in conductivity. However, the conductivity for this event was recorded at 45.09  $\mu\text{S}/\text{cm}$  which falls within its previous range.

The laboratory's internal quality control measures and field duplicates indicate the potential for inaccurate TDS values to be reported. The lack of a corresponding increase in specific conductance at GWC-23 indicates that conditions are stable at the well and that there was not an actual increase in the TDS concentration.

#### **2.2.4 Summary and Recommendations**

The CCR unit is not the source of the TDS SSI at GWC-23. The apparent source is deficiencies in laboratory analysis process. Future routine analyses will allow verify that this TDS result was an anomaly. The SSI is due to an error in analysis. The monitoring well should remain in detection monitoring as an alternate source was identified.

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## SECTION 3

# Conclusions and Recommendations

The 2018 Annual Groundwater Monitoring and Corrective Action Report was prepared to satisfy the requirements of §257.90(e). In that report SSIs were identified for three groundwater monitoring locations: GWC-10 (pH), GWC-18 (pH) and GWC-23 (TDS). This ASD has identified the following sources for each location with an SSI:

- GWC-10
  - Error in Statistical Analysis (SSI caused by a difference within the overlapping margins of instrumental accuracy)
  - Natural Variation in Groundwater Quality (background monitoring did not characterize the full range of pH values present at this location)
  -
- GWC-18
  - Error in Statistical Analysis (SSI caused by a non-significant figure)
  - Natural Variation in Groundwater Quality (background monitoring did not characterize the full range of pH values present at this location)
- GWC-23
  - Error in Analysis (Internal and external laboratory quality control indicate the potential for error in TDS concentrations; field data confirm that the TDS level is anomalous)

All locations have met the requirements for a demonstration listed in §257.94(e)(2). Therefore, all locations should remain in detection monitoring at this time. Detection monitoring results should continue to be presented in the Annual Groundwater Monitoring and Corrective Action Reports, as well as state semi-annual groundwater monitoring reports.

---

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## SECTION 4 References

ACC, Inc. *2018 Annual Groundwater Monitoring Report and Corrective Action Report*, Plant Wansley CCR Landfill, 2018.

Southern Company Generation Engineering and Construction Services, Design and Operation Plans, Plant Wansley Coal Combustion By-Product Disposal Facility, 2012.

Southern Company Services (SCS), *Alternate Source Demonstration for Plant Wansley Disposal Facility Groundwater Monitoring Network*, 2017.

U.S. EPA Waste Management Division Office of Solid Waste, 1989, EPA 530/SW89-031 Interim Final RCRA Investigation (RFI) Guidance, Volume II or IV.

U.S. EPA, Science and Ecosystem Support Division, *SESD Operating Procedure Field pH Measurement*, <https://www.epa.gov/sites/production/files/201506/documents/Field-pH-Measurement.pdf> , 2013.



## TABLES

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PROJECT NUMBER: I054-110 PAGE: 1 OF 1  
 PROJECT NAME: Plant Wansley LF BY: RW DATE: December 2018  
 SUBJECT: Plant Wansley LF CHK'D: MM DATE: December 2018

Table 1 - Quality Control Data  
 Relative Percent Difference

Equation

$$RPD = \frac{A - B}{\text{Avg}(A,B)} \times 100\%$$

where: RPD = relative percent difference  
 A = original concentration  
 B = duplicate comparison concentration

Values Used in Calculation

Comparison	Concentrations	Calculated Value
GWC-6 & DUP-01 TDS	A = 70 B = 120	52.6%

Comparison	Concentrations	Calculated Value
GWC-22 & DUP-02 TDS	A = 100 B = 120	18.2%

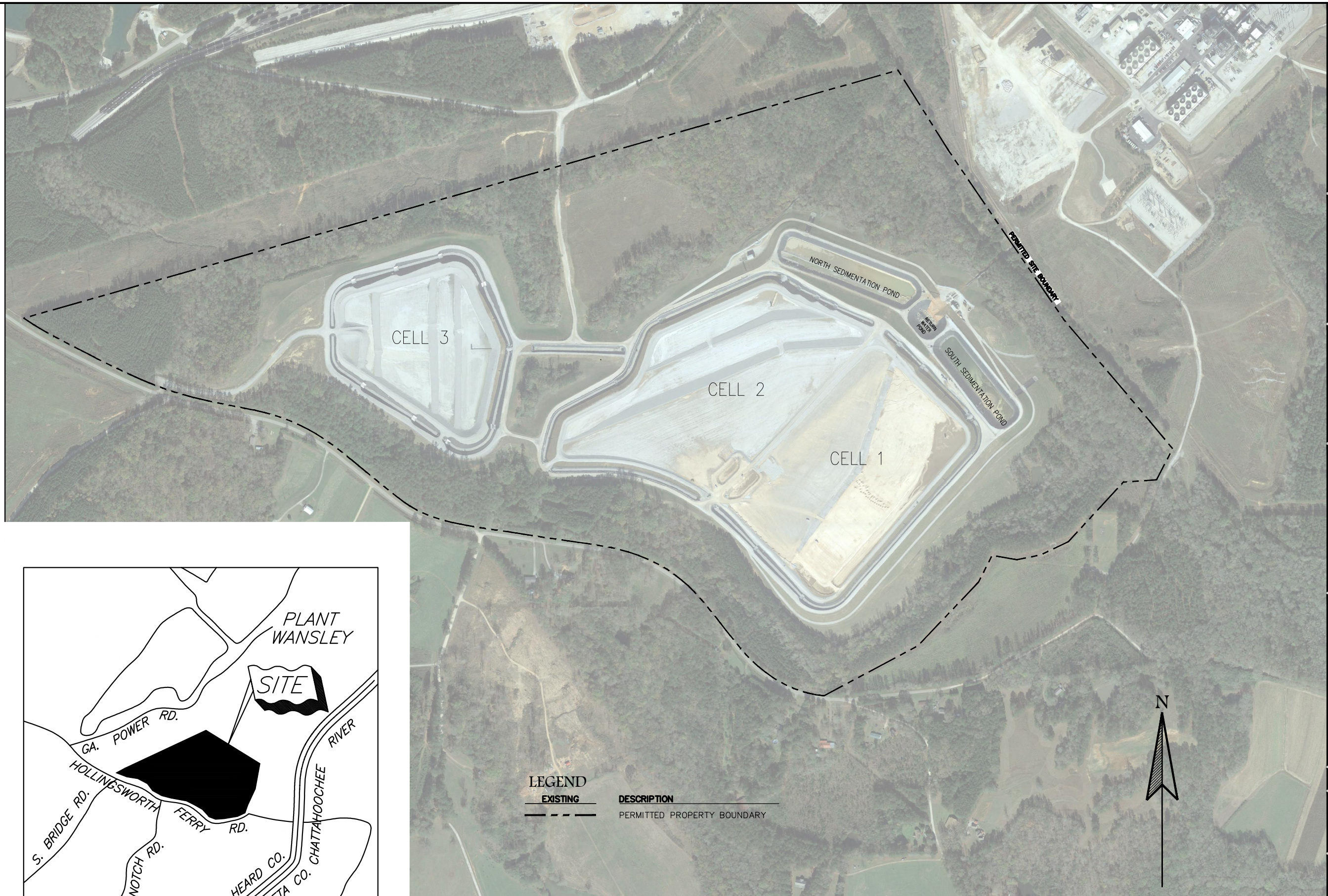
Comparison	Concentrations	Calculated Value
GWC-13 & DUP-03 TDS	A = 62 B = 72	14.9%

Comparison	Concentrations	Calculated Value
GWC-5 & DUP-04 TDS	A = 230 B = 240	4.3%

## FIGURES

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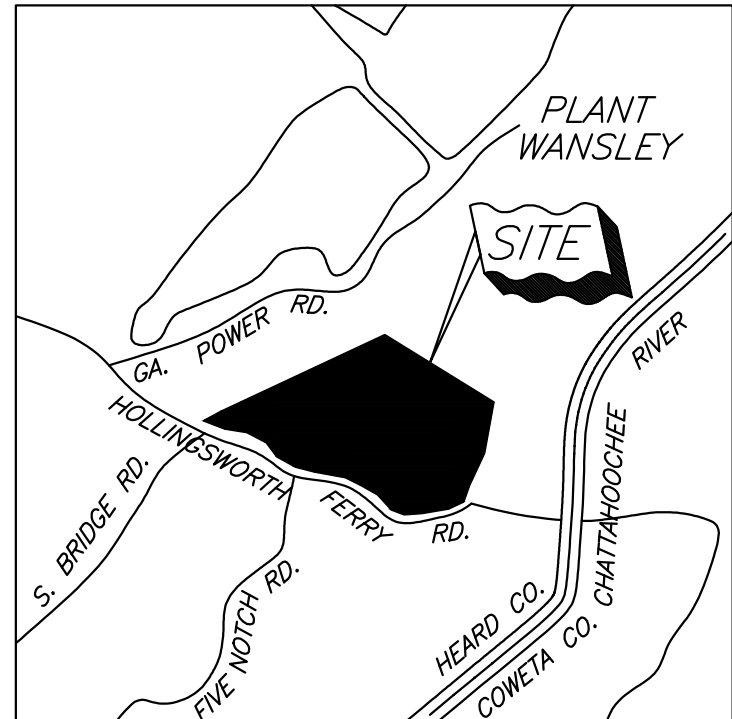
**ACC**  
**ATLANTIC COAST CONSULTING, INC.**  
 630 Colonial Park Dr.  
 Suite 110  
 Roswell, GA 30075  
 o 770.594.5998  
 www.atlcc.net

PROJECT:  
**PLANT WANSLEY CCR LANDFILL**

1371 LIBERTY CHURCH ROAD  
 CARROLLTON, GEORGIA

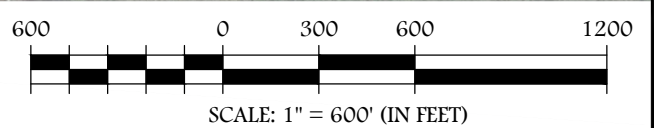
REVISIONS


Drawn by: MM	Checked by: EP
PROJECT NUMBER: I054-110 January 2019	



LOCATION MAP

LEGEND	DESCRIPTION
	EXISTING
	PERMITTED PROPERTY BOUNDARY



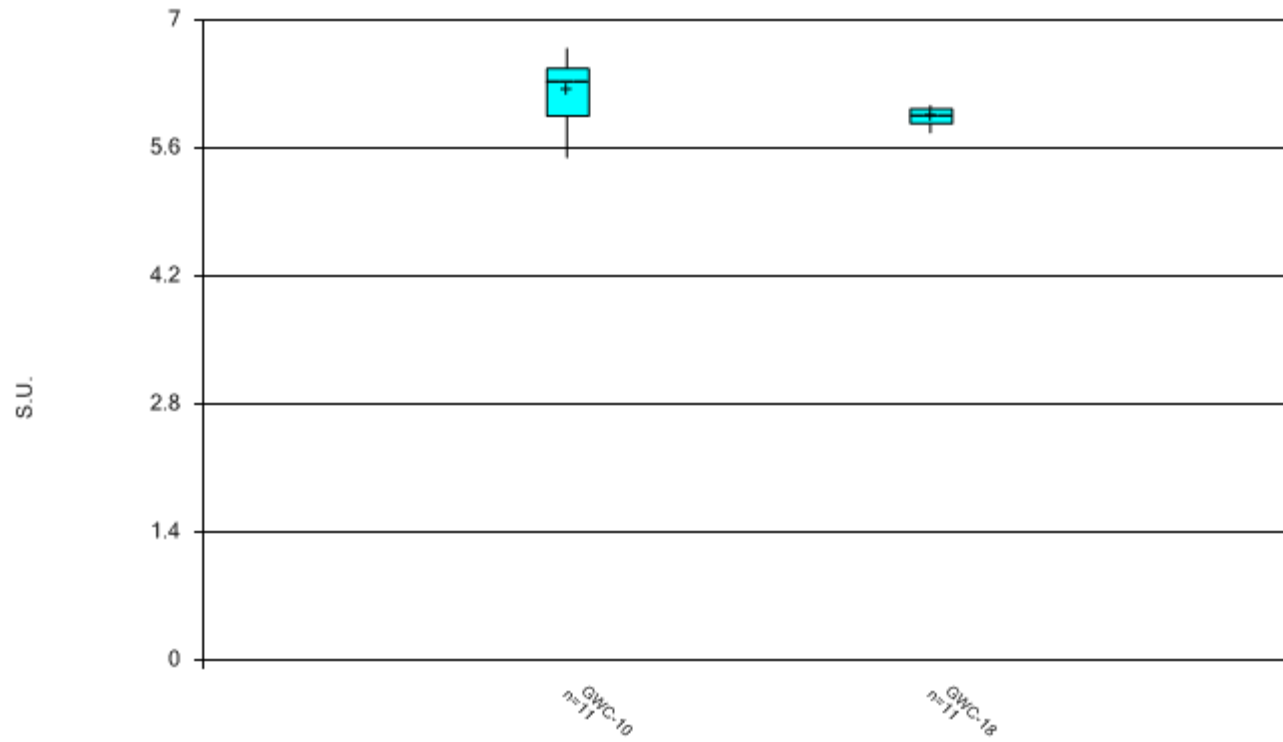
SITE LOCATION MAP  
 FIGURE 1







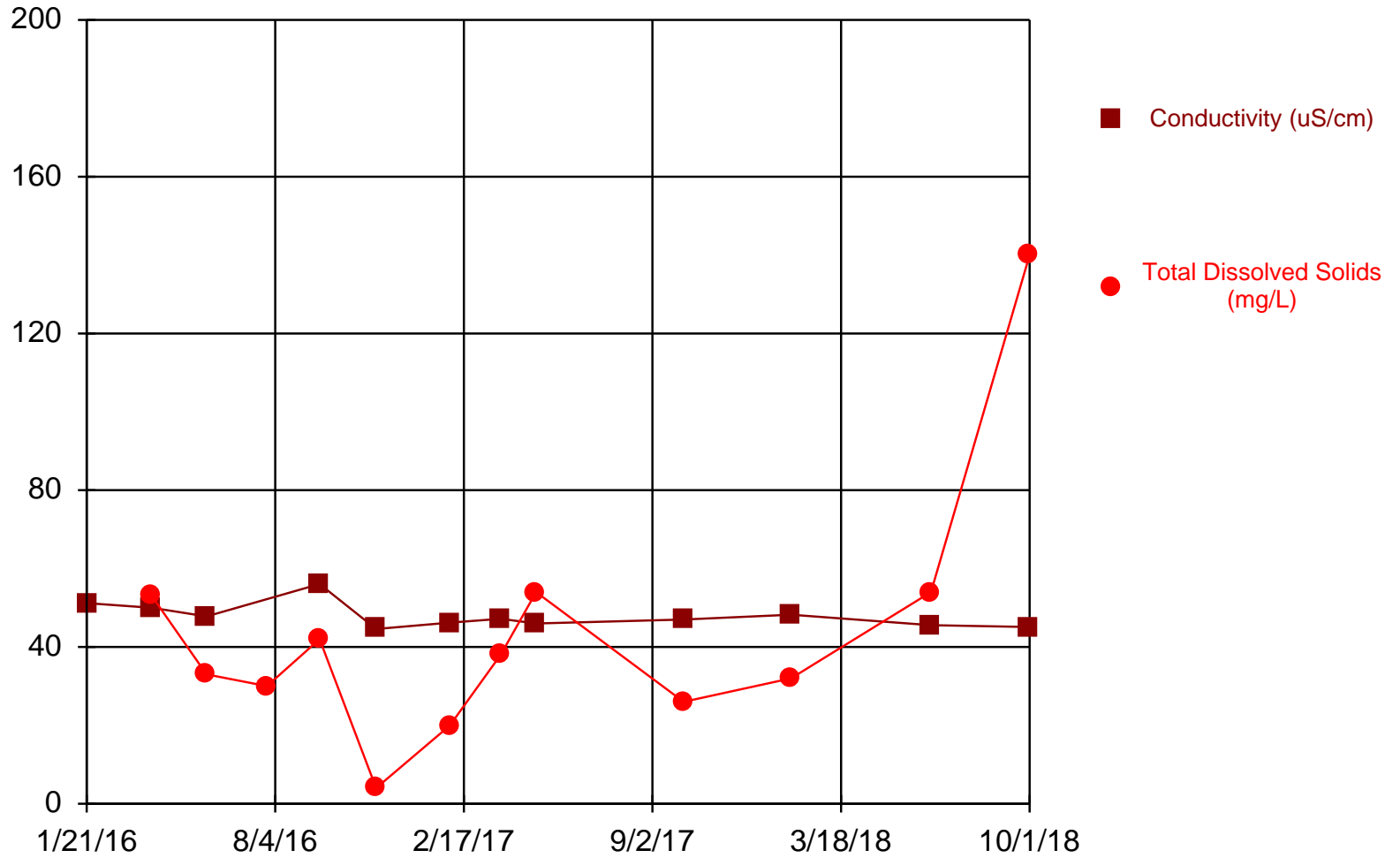
Figure 3 – Box & Whiskers Plot



Box & Whiskers Plot Analysis Run 1/24/2019 12:22 PM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Figure 4 - Conductivity vs Total Dissolved  
Solids Time Series Plot for GWC-23



Analysis Run 12/10/2018 1:38 PM

Plant Wansley Client: Southern Company Data: Wansley Landfill

## APPENDIX A

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## SMARTROLL™ MP Handheld Instrument



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0099172 | Rev. 003

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## Introduction

This manual is intended to describe the characteristics, operation, calibration, and maintenance of the SmarTROLL™ MP Instrument.

### Serial Number Location

The probe serial number is on the product label affixed to the probe body.

The battery pack serial number is on a sticker affixed to the battery pack casing.

### Safety

- Do not submerge the battery pack or the mobile display device in liquid.
- Ensure that the pH/ORP sensor is completely inserted into the port, so that no liquid can enter the instrument. The storage plug is not intended to be used when the instrument is deployed in water.
- Ensure that the RDO Sensor Cap is pressed firmly over the sensor lens and is flush with the instrument before submerging in liquid.
- Replace the cable if insulation or connectors are damaged.
- Make sure the probe and sensor O-rings are clean and free of damage.

### General Specifications

Operating temperature	-5 to 50° C (23 to 122° F)
Storage temperature	-40 to 65° C (-40 to 149° F)
Dimensions	4.7 cm (1.85 in.) OD x 26.9 cm (10.6 in.) with restrictor installed (does not include connector)
Weight	694 g (1.53 lbs)
Wetted materials	PVC, 316 stainless steel, titanium, Acetal, Viton®, PC/PMMA
Environmental rating	IP68 with all sensors and cable attached. IP67 with sensors removed and cable detached.
Reading rate	1 reading every 10 seconds; data logged to mobile device.
Power	6 VDC from battery pack
Interface	iPhone® 4S, iPod touch® 5, or iPad® 3, 4, mini or later; iOS 6.0 or later. Bluetooth® Low Energy (BLE) radio. Purchase the iSitu™ App at the Apple® App Store.

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Cable	Black polyurethane. Standard lengths available: 1.5 m, 4.6 m, 9.1 m, 30.5 m, 76.2 m (5 ft, 15 ft, 30 ft, 100 ft, 250 ft)
Warranty	2-years
Notes	Specifications are subject to change without notice. Apple, iPhone, iPod touch, and iPad are trademarks of Apple Inc. registered in U.S. and other countries. Bluetooth is a registered trademark of Bluetooth SIG, Inc. Viton is a registered trademark of DuPont Performance Elastomers L.L.C.

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## Sensor Specifications

### Level, Depth, Pressure Sensor Specifications

Accuracy	Typical $\pm 0.1\%$ FS @ 15° C; $\pm 0.3\%$ FS max. from 0 to 50° C
Range	76 m (250 ft); absolute (non-vented)
Resolution	$\pm 0.01\%$ FS or better
Sensor Type	Fixed
Response Time	Instantaneous in thermal equilibrium
Units of Measure	Pressure: psi, kPa, bar, mbar, mmHg, inHg Level: mm, cm, m, in, ft
Methodology	Piezoresistive; ceramic

### Barometric Pressure Sensor Specifications (Battery Pack)

Accuracy	$\pm 3$ mbar max.
Range	300 to 1100 mbar
Resolution	0.01 mbar
Sensor Type	Fixed
Response Time	Instantaneous in thermal equilibrium
Units of Measure	psi, kPa, bar, mbar, mmHg, inHg, Torr, atm
Methodology	Piezoresistive pressure sensor

---

### Conductivity Sensor Specifications

Accuracy	Typical $\pm 0.5\%$ + 1 $\mu\text{S/cm}$ ; $\pm 1\%$ max.
Range	5 to 100,000 $\mu\text{S/cm}$
Resolution	0.1 $\mu\text{S/cm}$
Sensor Type	Fixed
Response Time	Instantaneous in thermal equilibrium
Units of Measure	Actual conductivity ( $\mu\text{S/cm}$ , $\text{mS/cm}$ ) Specific conductivity ( $\mu\text{S/cm}$ , $\text{mS/cm}$ ) Salinity (PSU) Total dissolved solids (ppt, ppm) Resistivity (Ohms-cm) Density ( $\text{g/cm}^3$ )
Methodology	Std. Methods 2510 EPA 120.1

### Dissolved Oxygen RDO Fast Cap (Optical Sensor) Specifications

Accuracy	$\pm 0.1$ mg/L; $\pm 0.2$ mg/L; $\pm 10\%$ of reading
Range	0 to 8 mg/L; 8 to 20 mg/L; 20 to 50 mg/L; Full operating range: 0 to 50 mg/L
Resolution	0.01 mg/L
Sensor Type	Fixed with replaceable RDO Fast Cap (life: 1 year typical)
Response Time	T90: <30 sec. T95: <45 sec.
Units of Measure	mg/L, % saturation, ppm
Methodology	EPA-approved In-Situ Methods 1002-8-2009 1003-8-2009 1004-8-2009



---

**ORP Sensor Specifications**

Accuracy	±5.0 mV
Range	±1400 mV
Resolution	0.1 mV
Sensor Type	Replaceable pH/ORP combo sensor
Response Time	<15 sec.
Units of Measure	mV
Methodology	Std. Methods 2580

**pH Sensor Specifications**

Accuracy	±0.1 pH unit from 0 to 12 pH units
Range	0 to 14 pH units
Resolution	0.01 pH unit
Sensor Type	Replaceable pH/ORP combo sensor
Response Time	<15 sec., pH 7 to pH 4
Units of Measure	pH units
Methodology	Std. Methods 4500-H+ EPA 150.2

**Air Temperature Sensor Specifications (Battery Pack)**

Accuracy	±2° C
Range	-20 to 70° C (-4 to 158° F)
Resolution	0.1° C
Sensor Type	Fixed
Response Time	<30 sec.
Units of Measure	Celsius, Fahrenheit
Methodology	EPA 170.1

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**Temperature Sensor Specifications (Probe)**

Accuracy	$\pm 0.1^{\circ} \text{C}$
Range	-5 to 50° C (23 to 122° F)
Resolution	0.01° C or better
Sensor Type	Fixed
Response Time	<30 sec.; temperature sensor only
Units of Measure	Celsius, Fahrenheit
Methodology	EPA 170.1

---

## **Battery Pack Specifications**

<b>Battery Type</b>	<b>Four 1.5V AA lithium or alkaline batteries</b>
Operating temperature	-5 to 50° C (23 to 122° F); 95% relative humidity, non-condensing
Storage temperature	-40 to 65° C (-40 to 149° F); 95% relative humidity, non-condensing
Dimensions & weight	9.5 x 7.6 x 5.7 cm (3.75 x 3 x 2.25 in.) (H x D x W). Weight: 165 g (5.8 oz)
Materials	PC/ABS
Environmental rating	IP67 with battery cover closed
Output options	BLE radio
Battery type	4 AA Lithium or Alkaline
Warranty on battery pack	1-year
Warranty on cable	1-year

---

## ***Instrument Overview***

### **Instrument Description**

The smarTROLL MP Handheld Instrument is comprised of a mobile display, Battery Pack, cable, and multiparameter water quality probe. The optical Rugged Dissolved Oxygen (RDO<sup>®</sup>), conductivity, pressure, and temperature sensors are integrated into the probe. The pH/ORP and the RDO Sensor Cap are replaceable.

### ***System Components***

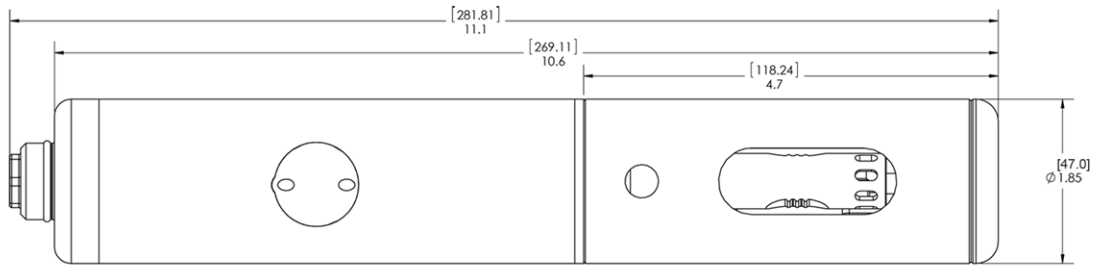
The system includes the following components.

- Integrated sensors: RDO, conductivity, pressure, and temperature
- Plug-in pH/ORP sensor
- RDO Fast Sensor Cap
- Stainless steel restrictor
- Calibration and storage cup
- Battery pack and cable

Accessories purchased separately

- Replacement RDO Fast Sensor Cap
- Replacement pH/ORP sensor
- Calibration Kit (includes calibration cup, 3 sponge wafers, vented cap, and storage cap)
- Cable 1.5 m (5 ft), 4.6 m (15 ft), 9.1 m (30 ft), 30.5 m (100 ft), 76.2 m (250 ft).
- Maintenance kit
- Replacement battery pack
- Storage/Calibration cup
- Low-Flow kit
- iPod<sup>®</sup> Touch (for instrument control and data display)
- iTunes<sup>®</sup> account for transferring data files as an alternate to email

## Probe Dimensions with Restrictor On



Total length with connector	281.81 mm (11.1 in.)
Total length without connector	269.11 mm (10.6 in.)
Restrictor length	118.24 mm (4.7 in.)
Diameter	47 mm (1.85 in.)

## Probe Dimensions with Restrictor Off

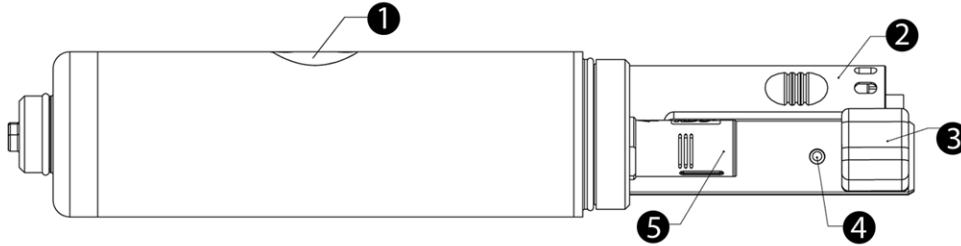


Sensor length | 81.09 mm (3.2 in.)

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## Sensors

Sensors include optical RDO (Rugged Dissolved Oxygen), pH/ORP, conductivity, pressure, and temperature.



1	Pressure sensor 76 m (250 ft)
2	pH/ORP sensor
3	Conductivity sensor
4	Temperature sensor
5	RDO Sensor



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## Probe Setup

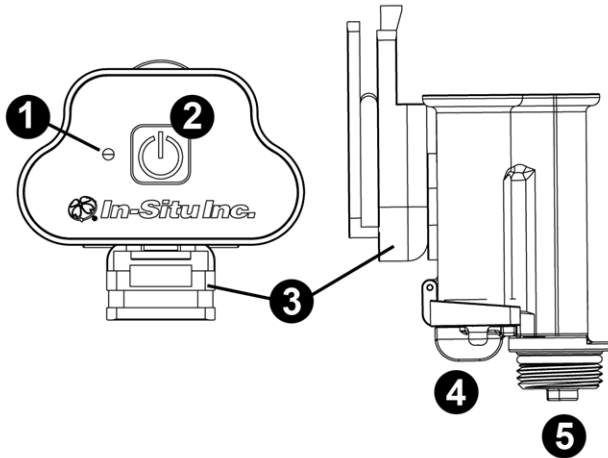
The probe is shipped with a storage plug and protective dust caps in place.



- |   |   |
|---|---|
| 1 | Dust cap protector on the RDO Sensor. (Install the RDO Cap before deploying the instrument.)                  |
| 2 | pH/ORP storage plug. (Remove the storage plug and install the pH/ORP sensor before deploying the instrument.) |

## Install the Batteries

The 4 AA batteries that are shipped with the battery pack are likely to last for 80 hours of continuous use.



- |   |                           |
|---|---------------------------|
| 1 | Power indicator           |
| 2 | On/Off button             |
| 3 | Belt clip                 |
| 4 | Battery compartment latch |
| 5 | Cable connection          |

- 
1. Twist the cable connector counterclockwise to remove the cable from the battery pack.
  2. Slide the lever on the battery compartment to release the cover.

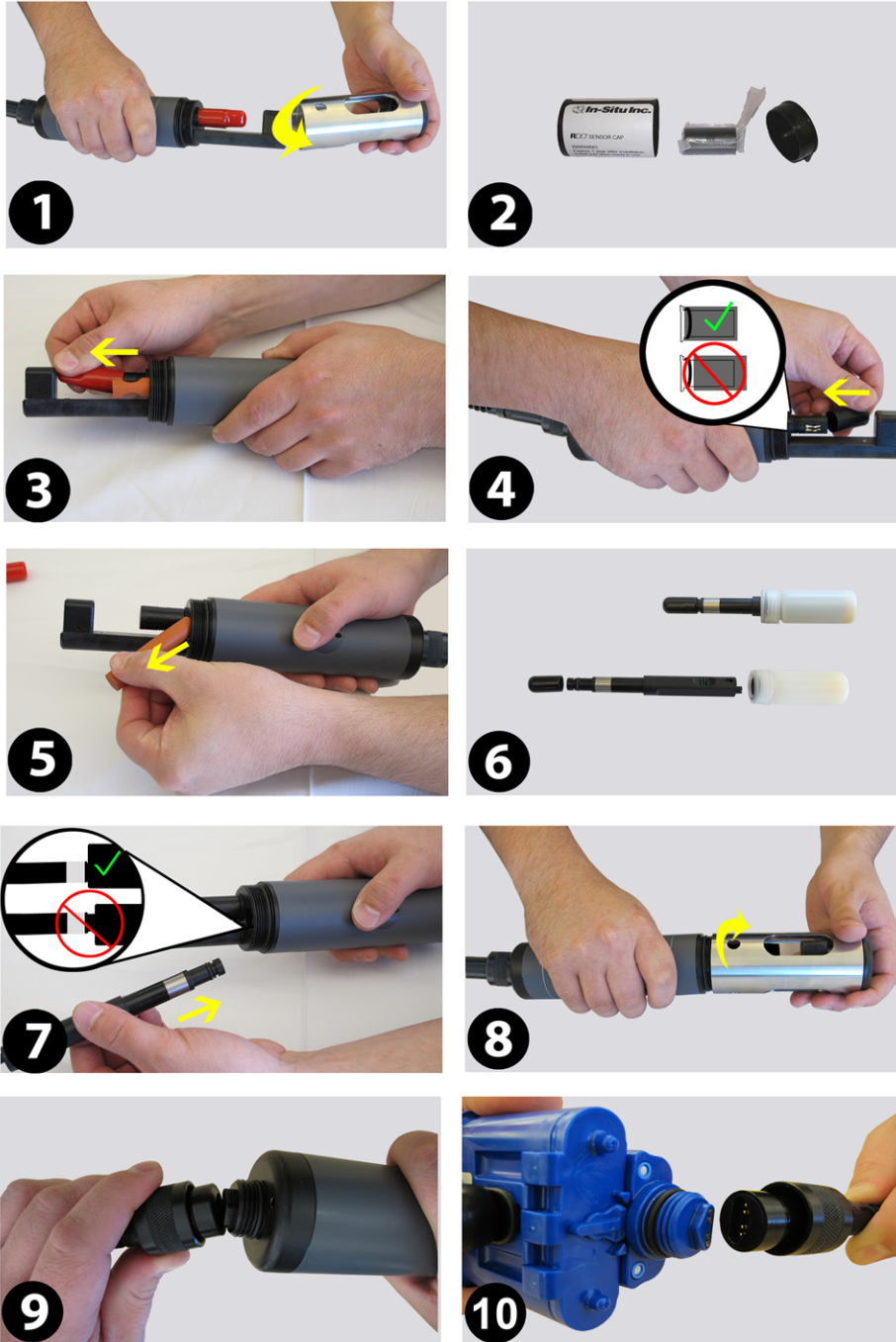


3. Install the 4 AA batteries according to the +/- indicators engraved on the outside cover.



4. Close the cover and slide the lever to lock the compartment.

## Installing the Sensors



1. Twist the restrictor off the probe.
2. Locate the RDO Sensor Cap container and remove the cap.
3. Remove the dust cap from the RDO Sensor.
4. Align the flat edge of the RDO Sensor with the slotted edge of the RDO Cap and press the cap into position. Push until the cap is firmly in place.



Important: Avoid touching the sensor lens and the sensing material on the top of the cap.

5. Remove the orange plug from the pH/ORP port.
6. Remove the pH/ORP sensor from the storage bottle. Keep the bottle for future sensor storage.
7. Use the alignment marks to properly align the pH/ORP sensor with the port connection, and press firmly into place. Push until the sensor is completely inserted into the port.
8. Twist the restrictor onto the probe.
9. Align the pins on the cable with the pins on the probe, then twist the outer portion of the connector until the connection is secure.
10. Align the pins on the cable with the pins on the battery pack, then twist the outer portion of the connector until the connection is secure.



Important: The RDO Sensor Cap and pH/ORP sensor must be installed firmly in place to prevent water from entering the instrument.

---

## *iSitu Overview*

### **About the iSitu App**

The iSitu App is the user interface and control application for In-Situ handheld water quality instruments. You can use iSitu on the Apple iPod Touch, and iPhone for up to five devices per purchased license.

iSitu allows you to accomplish the following tasks.

- View live readings that update every 10 seconds.
- Change parameters and units.
- Record data.
- Email data in spreadsheet format.
- Transfer data from mobile device to a computer.
- Organize data by Site location.
- Calibrate Sensors and View Reports
- Conduct Low-Flow Pump Testing (Additional purchase is required.)

### ***Estimated iPod Battery Life***

The table below shows the estimated battery life for the iPod. The values are dependent on the number of readings taken and the brightness setting on the display. To change brightness settings, see **Settings > Brightness & Wallpaper** on the iPod.

BRIGHTNESS					NUMBER OF READINGS	BATTERY TIME (HOURS)
MIN	1/4	1/2**	3/4	FULL		
X					2,500	6.9
	X				1,950	5.4
		X			1,700	4.7
			X		1,500	4.2
				X	1,050	3.3

\*Values provided assume location services and WiFi enabled. Disabling these features can provide an additional 0.5 to 1 hour of life.

\*\*Default

### **Connect the Instrument to the iSitu App**

1. Make sure that the cable is connected to the instrument and the battery pack.
2. Press the power button on the battery pack.
3. On the mobile device, tap **Settings**.



4. Turn Bluetooth on.



5. Press the Home button (round button on the mobile device frame) to show all apps.

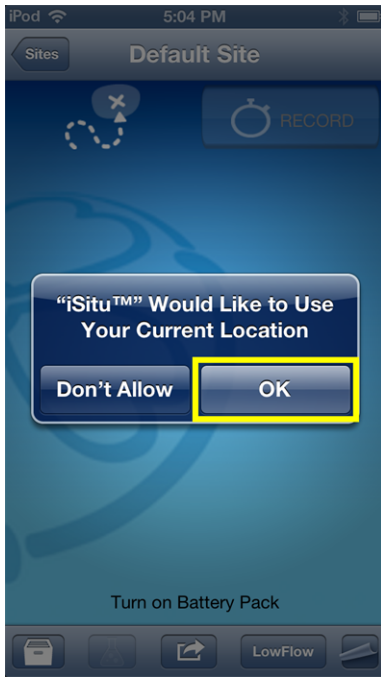
6. Tap the iSitu icon  to open the iSitu App.

7. If you are prompted to allow iSitu to use your current locations, tap **OK**.



If you allow iSitu to use your current locations it will enable the mapping feature for site setup. If you select **Don't Allow**, you can change the setting later. **See Settings > Privacy Settings > Location Services.**





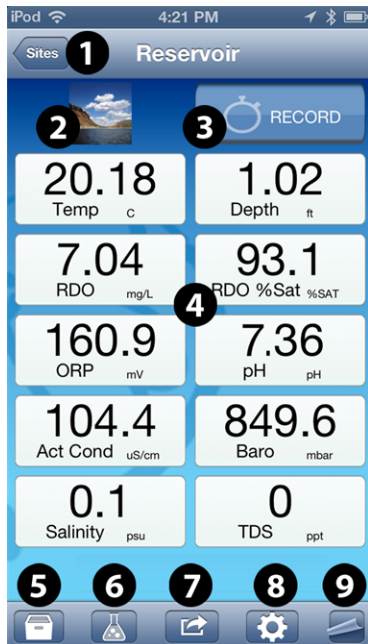
8. Live readings appear on screen.



## Live Readings Screen

The Live Readings screen is also referred to as the Home screen. If you touch the **Home** icon within the app you will return here.

✓ Live readings update every 10 seconds.



1	Sites button - setup sites, select another site
2	Site photo (optional)
3	Record/Stop button - records sensor readings every 10 seconds
4	Sensor readings - updated every 10 seconds
5	Data files - access files stored on the mobile device
6	Sensor calibration
7	View or email data
8	Access Low-Flow (additional purchase required)
9	Help

---

## Change Parameters and Units

1. From the **Home** screen, tap any parameter field.



2. Swipe the left side of the parameter pick wheel to find the appropriate parameter.
3. Swipe the right side of the parameter pick wheel to select the appropriate unit.
4. Tap the **Set** button to set the parameter and unit selection.

---

## iSitu Sites

### About Sites

A site represents the physical location at which the instrument collects data. For example, you can create a site to represent a lake, gauging station, well, tank, number, or nearby landmark.

If you do not set up a site, your data will be associated with **Default Site**. The site name is displayed at the top of the **Live Readings** screen.

Tap the **Sites** button to select or edit an existing site, or to create a new site.

### Create a New Site

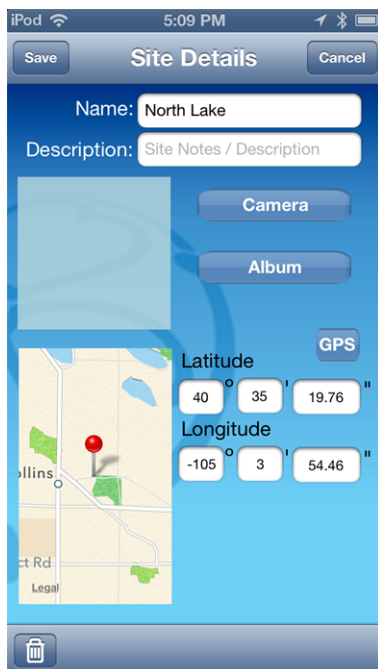
1. From the **Live Readings** screen, tap the **Sites** button.



2. A list of existing sites appears.



3. Tap the **New Site** button. The **Site Details** screen appears.



4. Tap the **Name** field. Type the name for the new site and tap **Return**.
5. To add a description, tap the **Description** field. Type a description and tap **Return**. A description is optional.
6. To take a site photo, tap the **Camera** button, tap the camera icon to take a new photo, tap the **Use** button. A site photo is optional.
7. To select an existing photo, tap the **Album** button, tap **Camera Roll**, tap an existing photo.
8. To locate your site with Maps or GPS, tap the **GPS** button and your current location is automatically associated with the site. You can also enter GPS coordinates, or tap and hold on the map to select a location.



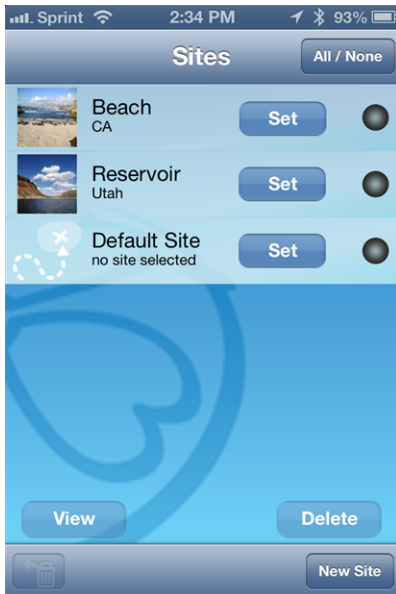
Location Services must be turned on for an accurate location to display on the map. See **Settings > Location and Security**.

9. Tap the **Save** button.
10. Tap the **Set** button next to the site you created. Now you are ready to record data associated with the selected site.

## Select a Site

After a site has been created, you can select it to record data that will be associated with that site.

1. From the Live Readings screen, tap the **Sites** button.
2. Locate the site with which you want to associate your data.



3. Tap the **Set** button. The site will appear on the Live Readings screen and recorded data will be associated with the selected site.

## Edit a Site

1. Tap the **Sites** button.
2. Locate the site you intend to edit.
3. Tap the **circle** next to the **Select** button for the site.
4. Tap the **View** button, and make changes to the site information.
5. Tap the **Save** button.

## Delete a Site

1. Tap the **Sites** button.
2. Locate the site you intend to delete.
3. Tap the **circle** associated with the site.
4. Tap the **Delete** button.





This procedure sends the site to the trash where you can choose to completely delete it, or restore the site. You cannot delete the default site.

## Restore a Site

1. It is possible to restore a deleted site.
2. From the **Home** screen, tap the **Sites** button.
3. Tap the **Restore From Garbage Can** icon.



4. Tap the site you intend to restore.
5. Tap the **Restore** button.

---

## iSitu Data

### About Data

iSitu allows you to view real-time readings, record readings in ten-second intervals, email data, store data to the mobile device, and transfer data from the mobile device to a PC.

### Record Data

1. Tap the **Record** button on the **Live Readings** screen to record data. The number on the stopwatch icon represents how many 10-second data intervals have transpired.



2. To stop recording, tap **Stop**.
3. Now you can email the data or download it to a computer.

### View an Individual Reading

Recorded data is stored on the Apple device in a comma-separated value (CSV) file and can be viewed in a spreadsheet format after the file has been emailed from the mobile device, or transferred to a computer via iTunes.

1. To view an individual reading, tap the **Action** icon.



2. Tap **View Last Reading**.



3. The most recent data in the last ten-second interval appears. Tap the **Home** icon to return to the **Live Readings** screen or tap the **Envelope** icon to email the data.

### View and Email Data from the Selected Site

After you have recorded data, you can email the data as a CSV file that can be opened with common spreadsheet software. Make sure the email feature is enabled on the mobile device.



See **Settings > Mail, Contacts, Calendars > Add Account**. You must also have connection to WiFi or cell phone service if you are using an iPhone®. See **Settings > Wi-Fi**.

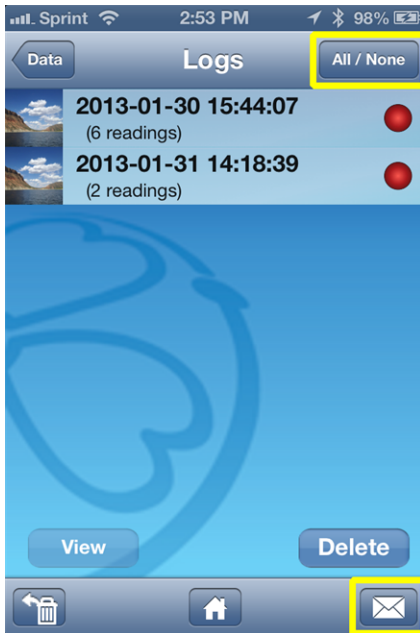
1. Tap the **Action** icon.



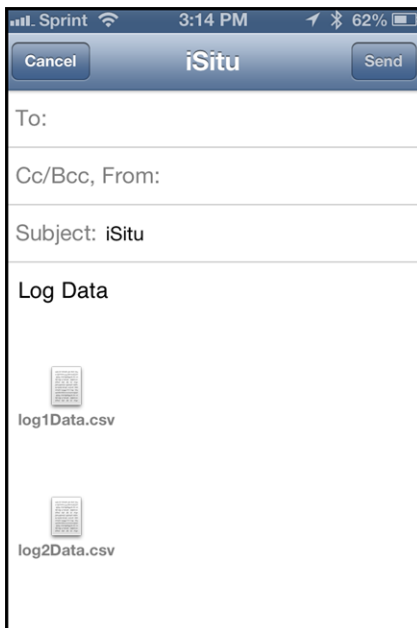
2. Tap **View Log List**. This shows a list for only the selected site.



3. To select all logs in the list, tap the **All/None** button, or to select individual logs, tap them separately.



4. Tap the **Envelope** icon.
5. An email form appears with the logs that were selected attached.



6. Enter an email address in the **To:** field.
7. Tap the **Send** button.

✓ You can also transfer data to a computer using iTunes.

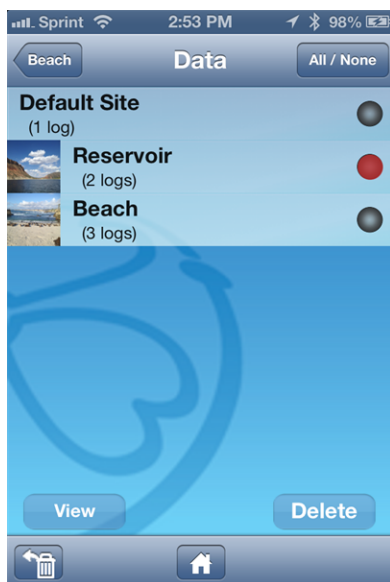
## View, Email, or Delete Data from Any Site

After you have recorded data, you can email the data as a CSV file that can be opened with common spreadsheet software. Make sure the email feature is enabled on the mobile device. See **Settings > Mail, Contacts, Calendars > Add Account**. You must also have connection to WiFi. See **Settings > Wi-Fi**.

1. Tap the **Data** icon.

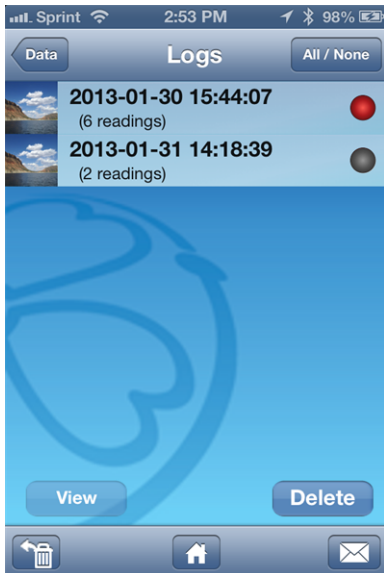


2. The Data screen displays a list of sites and the number of data logs within each site. Tap the site that contains the data you want to view, email or delete. The selection circle turns red and the **View**, and **Delete**, buttons become active.



3. Tap the **View** button.
4. The list of logs associated with that site appears. Tap the log you want to view. The selection circle turns red and the **View** and **Delete** buttons become active. The **Envelope** icon also becomes active. You can select any of these options.





5. Tap the **View** button.
6. The list of readings within the log appears. Tap the reading you want to view. The selection circle turns red and the **View** button becomes active.
7. Tap the **View** button. The data for an individual reading appears.



## Fort Collins

at 2013-06-03 12:27:18

<i>Parameter</i>	<i>Value</i>	<i>Unit</i>	<i>Quality</i>
Baro	839.5	mbar	OK: Normal
Temp	25.28	C	OK: Normal
RDO	6.48	mg/L	OK: Normal
RDO Sat	95.7	%	OK: Normal
Air Temp	27.40	C	OK: Normal



## Emailing Data From Different Screens in iSitu

### Emailing from the Data screen

Select one or more sites and email all logs associated with the selected sites.

### Emailing from the Logs screen

Select one or more logs (from a single site) and email the selected logs.

---

## Emailing from the Readings screen

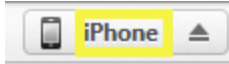
Select one or more readings (from a single log) and email them as one file. The file name will be appended with the word "reading."

## Emailing from the Data Details screen

Emailing from the Data Details view will email all readings in that log

## Transfer Data to a Computer

1. Connect the mobile device to a computer with iTunes installed.
2. Click on the Apple device icon next to the eject button.



3. Click the word **Apps** near the top of the screen.
4. Scroll to the bottom of the screen and click on **iSitu**.
5. Click on a file and drag it to your desktop.



You can also email data to your computer.

## Delete all Logs by Site

1. Tap the **Data** icon.



2. Tap the **All/None** button, or tap an individual site. The selection circle turns red when a site is selected.
3. Tap the **Delete** button. All logs associated with the site will be deleted.



This procedure sends the logs to the trash where you can choose to completely delete them or restore the logs.

## Restore Data

It is possible to restore deleted logs.

- 
1. Tap the **Data** icon.
  2. Tap the **Restore from Garbage Can** icon.



3. The contents of the Trash Can are displayed.
4. Tap the **All/None** button, or tap the individual logs you want to restore.
5. Tap the **Restore** button.




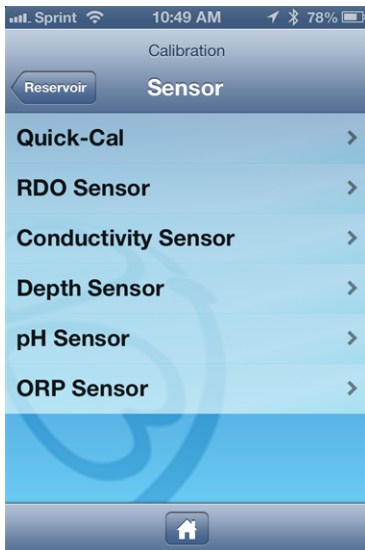
If you want to permanently delete data from the Trash Can, tap the **Delete** button.

---


## iSitu Sensor Calibration

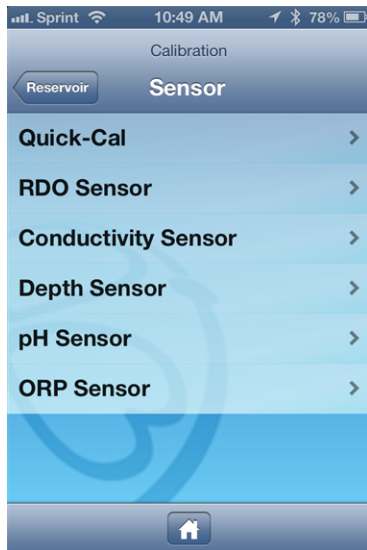
### About Calibration

Tap the **Calibration** icon  in the iSitu App to access a list of sensors that are available for calibration.



### Calibrate Multiple Sensors with Quick-Cal Solution

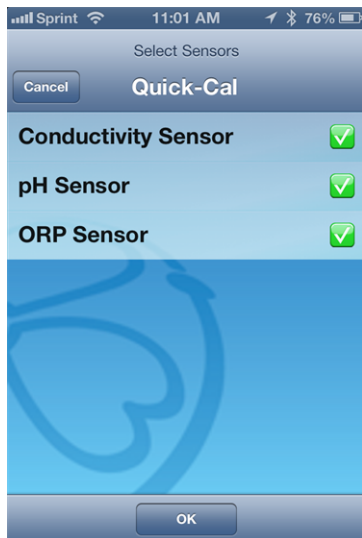
1. Tap the **Calibration** icon  to access a list of sensors that are available for calibration.
2. Tap **Quick-Cal**.



3. The conductivity, pH, and ORP sensors are automatically selected. Tap the green check mark next to a sensor if you want to exclude it from the quick calibration.



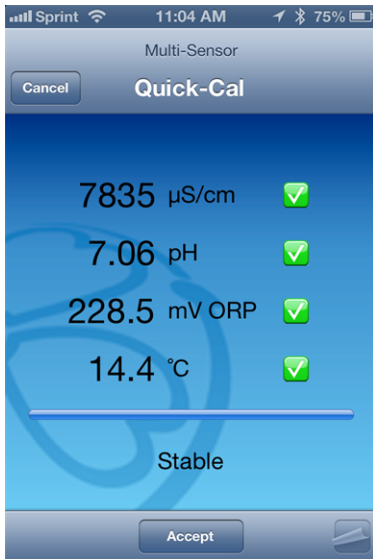
The dissolved oxygen sensor cannot be calibrated using the Quick-Cal procedure.



4. Tap **OK**.
5. Fill the calibration cup to the fill line with Quick-Cal solution.
6. Place the instrument into the calibration cup, and tap **Start**.




7. When the calibration is stable, tap the **Accept** button.

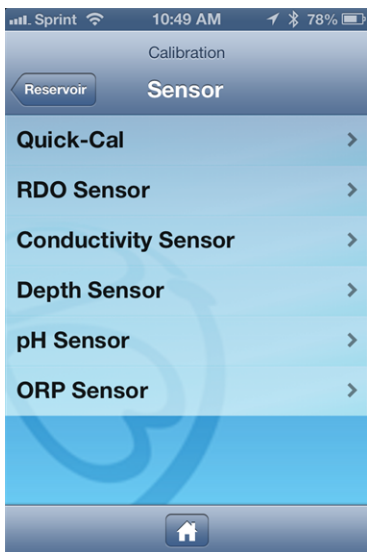


8. Rinse the sensors with DI water.

### Calibrate the Rugged Dissolved Oxygen Sensor

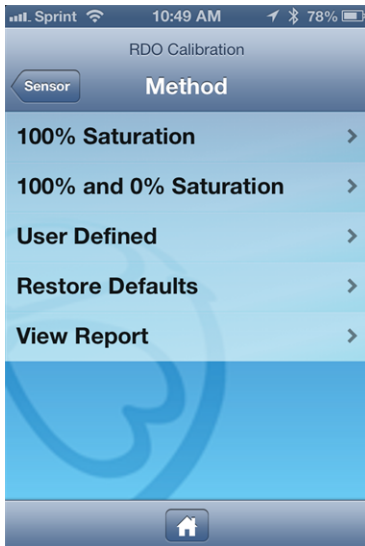
The RDO sensor requires very little maintenance. The zero oxygen calibration is optional.

1. Tap the **Calibration** icon .
2. Tap **RDO Sensor**.



3. Select the method by which you intend to calibrate the sensor. This example demonstrates a two-point calibration. Tap **100% and 0% Saturation**.



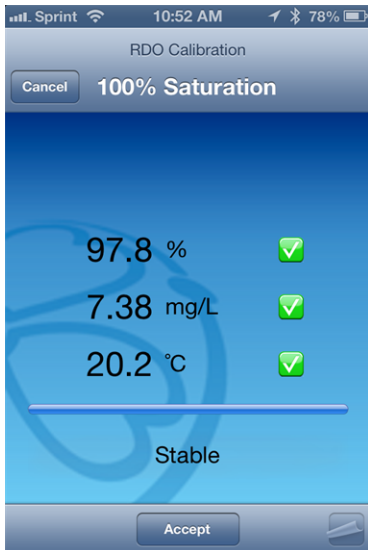


4. Place a water-saturated sponge in the bottom of the calibration cup. Place the instrument into the calibration cup, and tap **Start**.

✓ The calibration cup must be vented to barometric pressure. If you are using the calibration cup pictured below, make sure the vented cap is installed. If you are using the twist-on storage cup, set the instrument in the cup, but do not twist it into place.



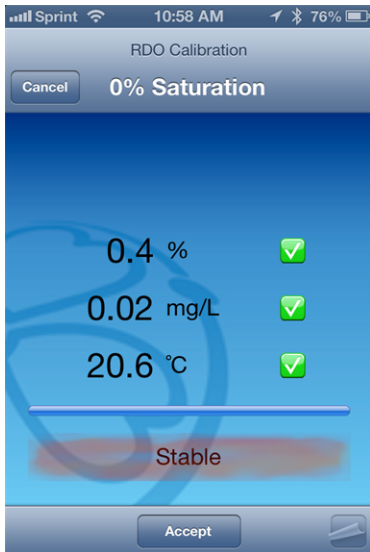
5. When the calibration is stable, tap the **Accept** button.



6. Remove the sponge and add fresh sodium sulfite solution to the fill line. Place the instrument into the calibration cup, and tap **Start**.




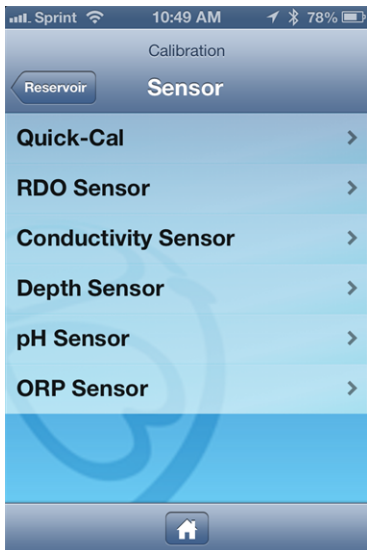
7. When the calibration is stable, tap the **Accept** button.



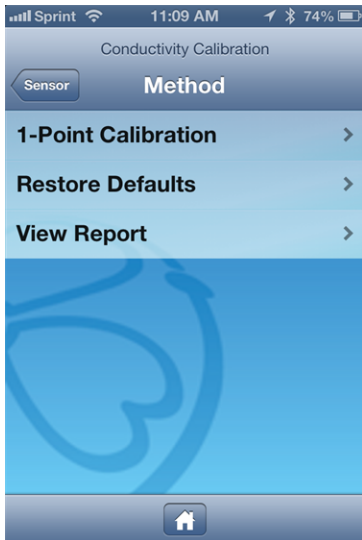
8. To view the calibration report, tap **View Report**.
9. Rinse the sensors thoroughly with DI water.

### Calibrate the Conductivity Sensor

1. Tap the **Calibration** icon  to access a list of sensors that are available for calibration.
2. Tap **Conductivity Sensor**.



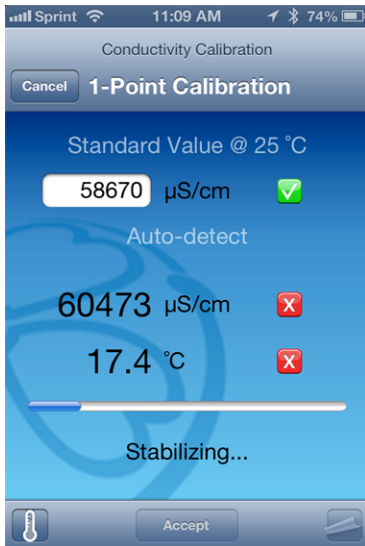
3. Tap 1-Point Calibration



4. Make sure the vented cap is installed on the calibration cup. Fill the cup to the fill line with calibration standard. Place the instrument into the calibration cup, and tap **Start**.



5. iSitu automatically detects the calibration standard.




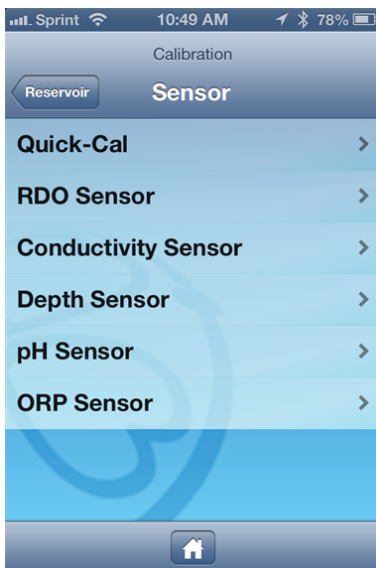
✓ If your calibration standard references 20° C, tap the **Thermometer** icon and change the reference temperature.

6. Once the calibration is stable, tap the **Accept** button.
7. To view the calibration report, tap **View Report**.
8. Rinse the sensors with DI water.

## Calibrate the Depth Sensor

### Zero in Air

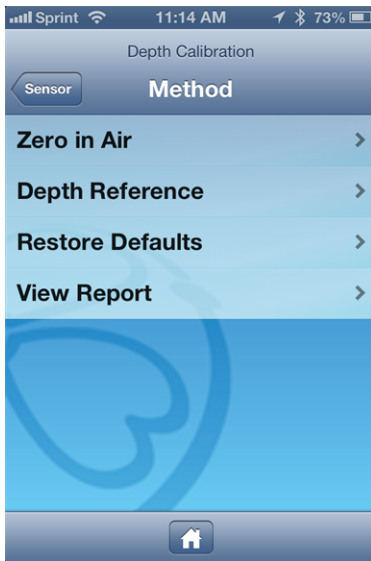
1. Tap the **Calibration** icon  to access a list of sensors that are available for calibration.
2. Tap **Depth Sensor**.



3. Tap **Zero in Air**.




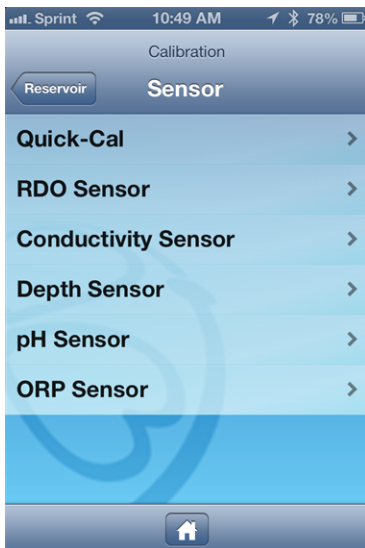
Do not perform a "Zero in Air" calibration if a Depth reference is already set because it will result in a faulty calibration. To clear a Depth reference, tap **Restore Defaults**.



4. Ensure that the pressure sensor is exposed to air and is not submerged in liquid.
5. Tap the **Start** button.
6. When the calibration is stable, tap the **Accept** button.

### Setting the Depth Reference

1. Tap the **Calibration** icon  to access a list of sensors that are available for calibration.
2. Tap **Depth Sensor**.

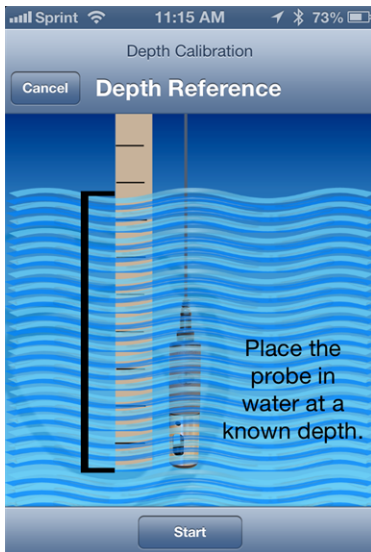


3. Tap **Depth Reference**.

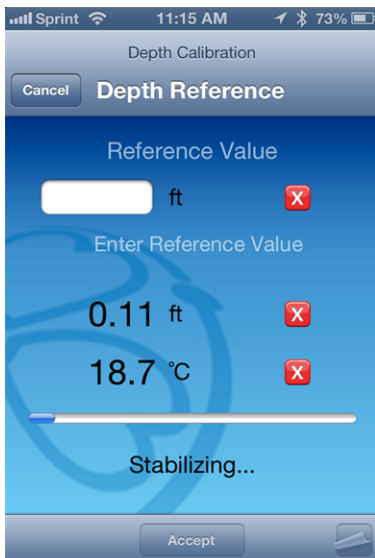




4. Place the instrument in the water at a known depth, and tap the **Start** button.



5. Tap the **Reference Value** field and enter the value of the known depth reference.





A depth reference applies an offset equal to the distance from the pressure sensor to a desired location, such as the bottom of the probe, so that the depth reading is reported from the desired location, rather than from the location of the pressure sensor.




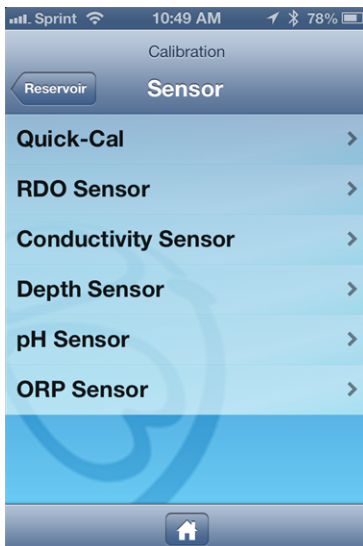
1 | Pressure sensor

2 | Example of a Depth reference setting

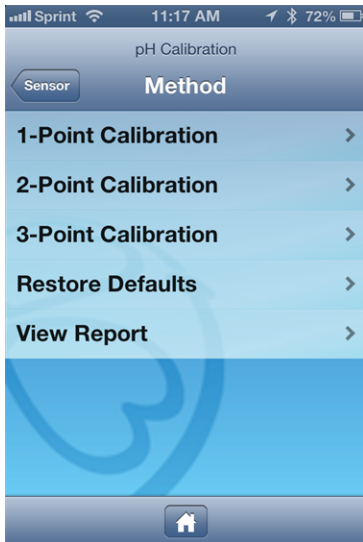
6. When the calibration is stable, tap the **Accept** button.

### Calibrate the pH Sensor

1. Tap the **Calibration** icon  to access a list of sensors that are available for calibration.
2. Tap **pH Sensor**.



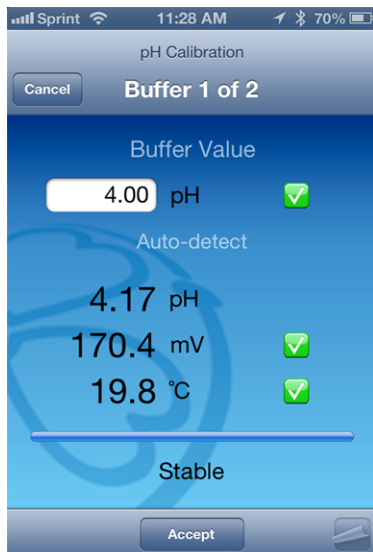
3. Select the method by which to calibrate the sensor. This example demonstrates a two-point calibration. Tap **2-Point Calibration**.



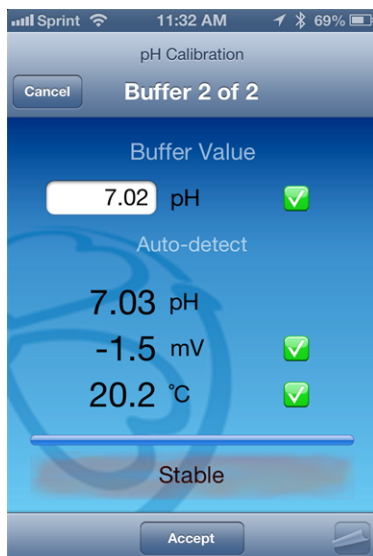
4. Make sure the vented cap is installed on the calibration cup. Fill the cup to the fill line with the first calibration buffer. Place the instrument into the calibration cup, and tap **Start**.



5. When the calibration is stable, tap the **Accept** button.




6. Fill the cup to the fill line with the second calibration buffer. Place the instrument into the calibration cup, and tap **Start**.
7. When the calibration is stable, tap the **Accept** button.

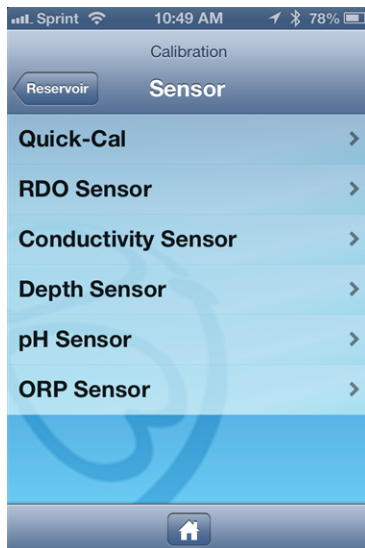


8. To view the calibration report, tap **View Report**.

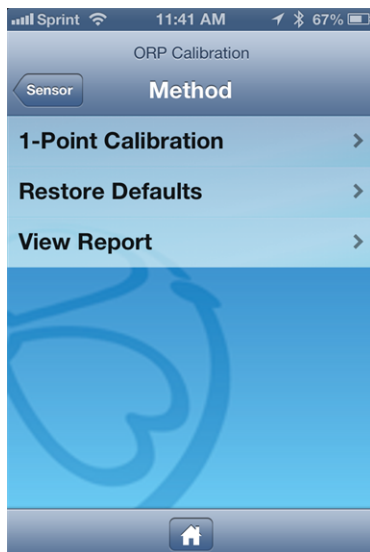
---

## Calibrate the ORP Sensor

1. Tap the **Calibration** icon  to access a list of sensors that are available for calibration.
2. Tap **ORP Sensor**.



3. Tap **1-Point Calibration**



4. Make sure the vented cap is installed on the calibration cup. Fill the cup to the fill line with calibration standard. Place the instrument into the calibration cup, and tap **Start**.



5. When the calibration is stable, tap the **Accept** button.
6. To view the calibration report, tap **View Report**.

---

## Low-Flow Pump Testing

### Low-Flow Sampling


Low-Flow sampling allows you to automate the collection of well and pumping information, monitor and record the stabilization of key water quality parameters, and automatically generate sample reports that conform to federal and regional regulations.

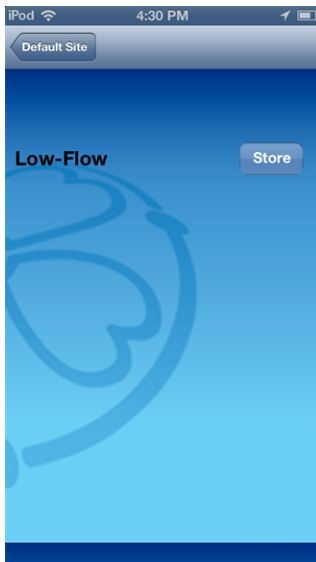
You can set up a template in the office and email it to a technician, or the setup can be done entirely in the field.

You need the following equipment.

- Pump and tubing
- Flow cell, fittings, and base plate or stake
- Instrument and communication device
- Mobile device or PC
- Optional turbidity meter

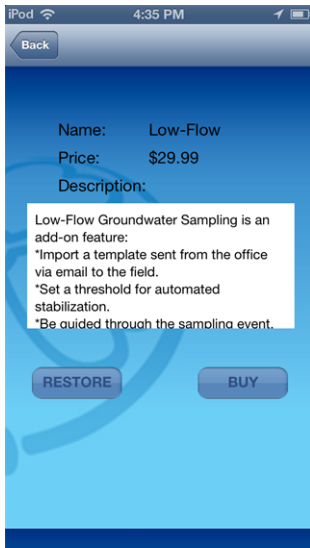
### Purchase the Low-Flow App

1. Tap the **Gear** icon .
2. Tap the **Store** button.



3. Tap the **Buy** button. You are asked to confirm your purchase. Tap the **Buy** button again.





4. You are prompted to enter your iTunes information. The Low-Flow App will be accessible the next time you tap the **Gear** icon.

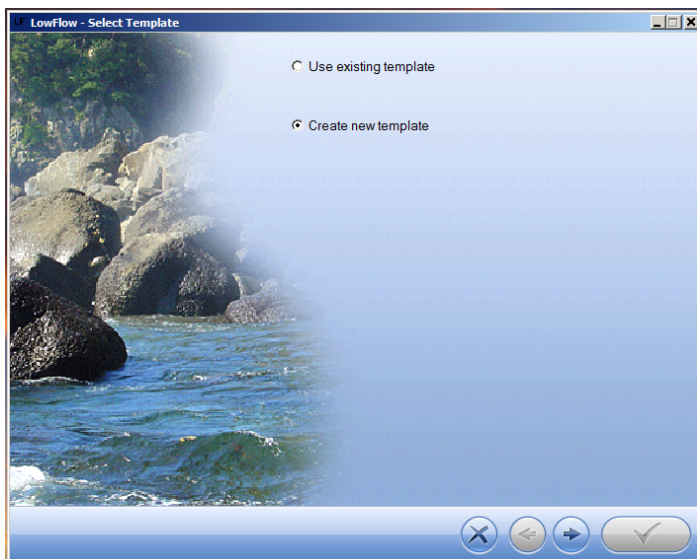
### Create a Low-Flow Template from the Desktop

You can create a Low-Flow template from a desktop or laptop computer and email it to technicians in the field.

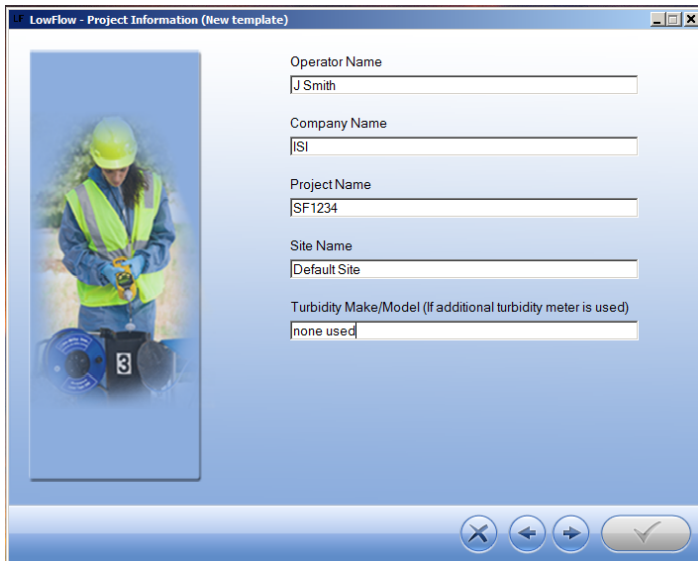


This Windows® software application is designed to work in conjunction with the VuSitu Mobile App and the SMARTROLL Multiparameter Handheld or Aqua TROLL 600 Multiparameter Sonde.

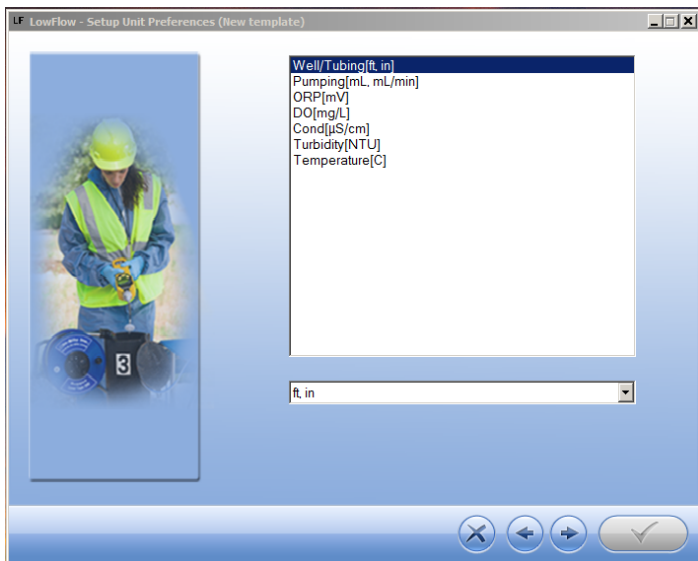
1. Open the Low-Flow software from within Win-Situ 5. When you are asked if you would like to connect to the device, click **No**.
2. Click the **Tools** menu and select **LowFlow Setup**.



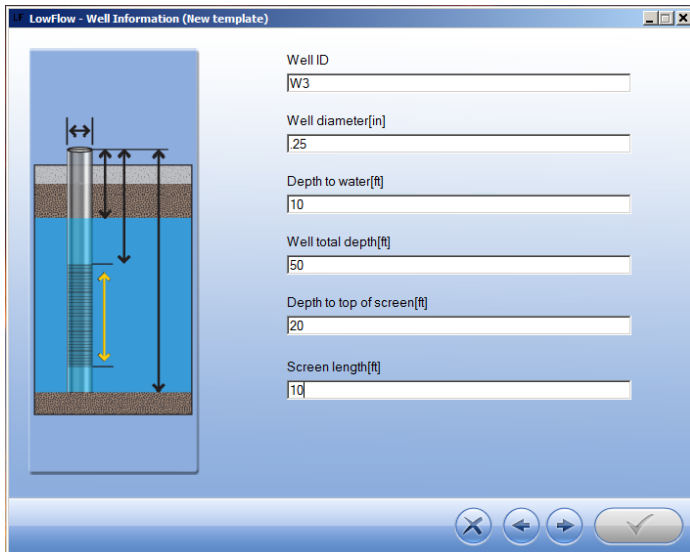
3. Click **Create New Template**, and click the **right arrow** button. The **Project** screen appears.



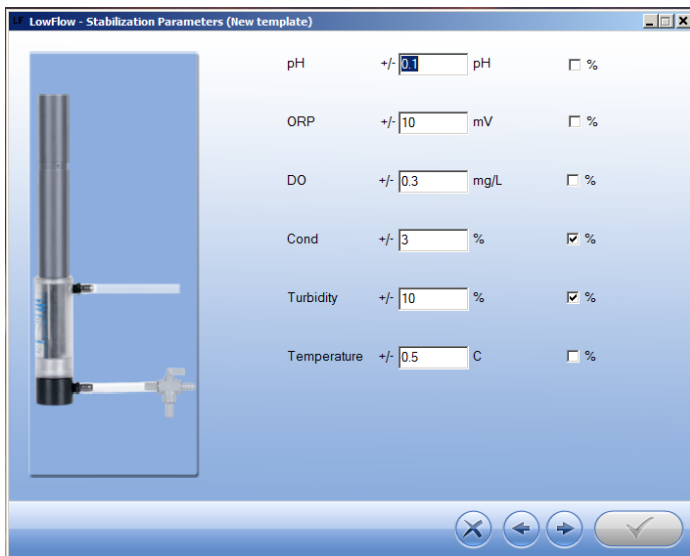
4. Enter project information and click the **right arrow** button. The **Units** screen appears.



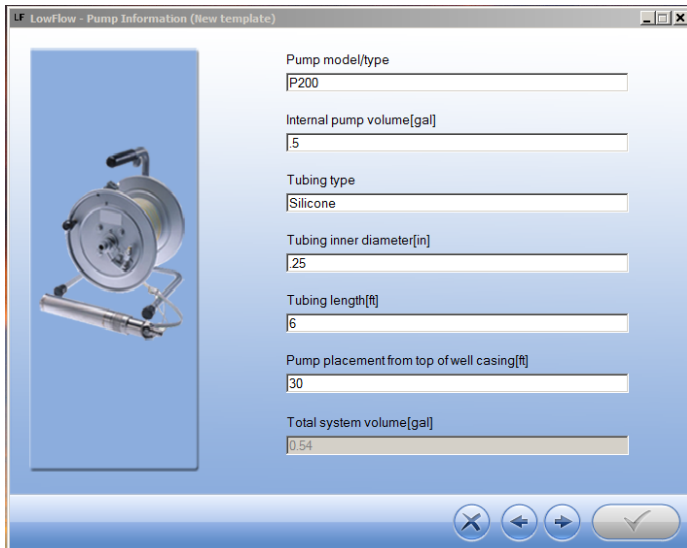
5. If necessary, select a parameter and then click the drop-down box to select units.
6. Click the **right arrow** button. The **Well Information** screen appears.



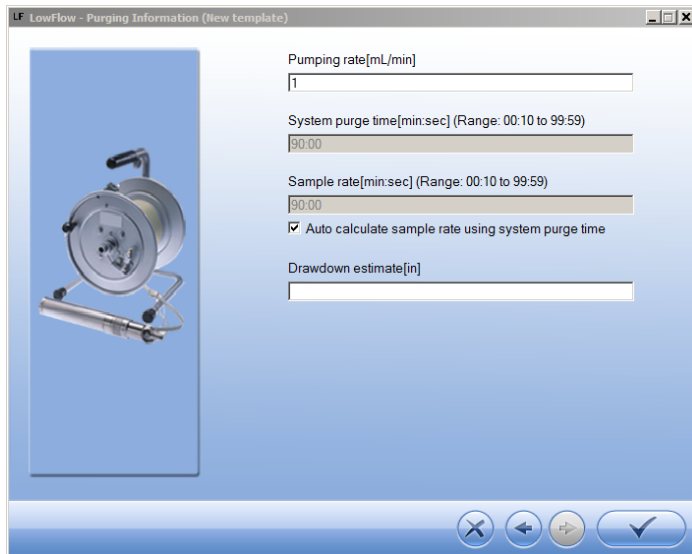
7. When you click on a field, the corresponding area of the well diagram is highlighted. Enter the well information.
8. Click the **right arrow** button. The **Stabilization Parameters** screen appears.



9. The default stabilization criteria is shown. A selected percentage checkbox indicates that the stabilization criterion for the parameter is based on percentage rather than an absolute value.
10. Edit the information if necessary, and click the **right arrow** button.



11. Enter the pump information. The total system volume is calculated using the internal pump volume, the tubing inner diameter, and the tubing length.
12. Click the **right arrow** button. The **Purging Information** screen appears.



13. Enter the pumping rate you intend to use during the test.
14. Enter the sampling rate you intend to use, or select **Auto calculate sample rate using system purge time** if you want the software to assign a sample rate.
15. Enter an estimate of the drawdown you expect during the testing.
16. Click the **check mark**. You can save the template with the default name or enter a different name.

---

## Email Low-Flow Template to a Mobile Device

1. Low-Flow templates are by default saved to your computer in **My Documents/LowFlow Templates**.
2. One way to email a template is to open the **LowFlow Templates** folder and right-click on the template you want to email.
3. Select **Send to** and select **Mail recipient**. A new email will open with the template attached.
4. Send the email to a device that has email enabled.

## Load the Template into the iSitu App

1. Open the email on the mobile device.
2. Scroll to the attached template.




3. Tap and hold the attachment. A pop-up menu appears.



4. Tap the **iSitu icon**. The iSitu app opens with the template loaded. If you would like to save the template to the device, tap the **Save** button.

✓ You can swipe through the screens and edit information before you save changes to the template.

## Set up a Low Flow Test From a Template

1. Tap the **Gear** icon  to access the Low-Flow section of the App.

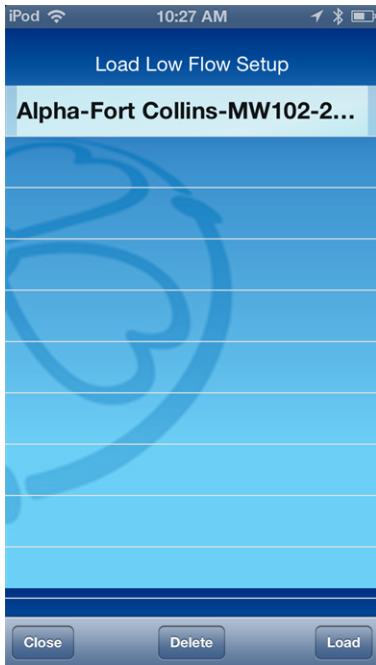


2. The **Project** screen appears.




3. Tap the **Template** button. A list of all saved templates appears.

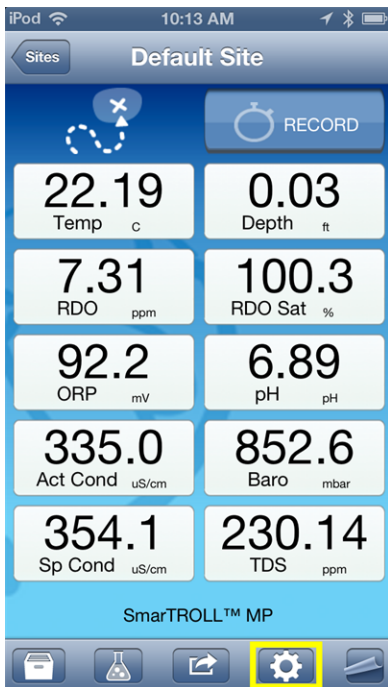




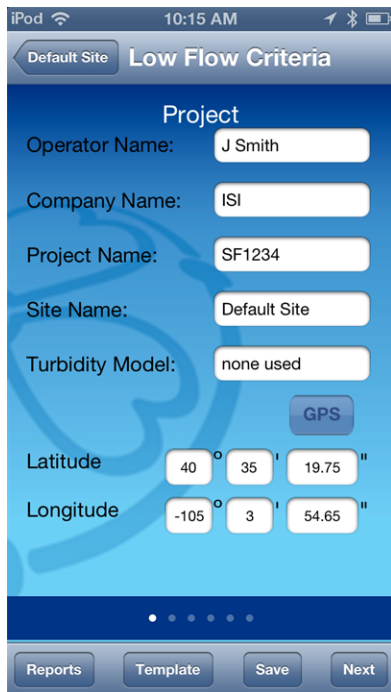
4. Tap on the template you intend to load, and tap the **Load** button.

### Set up a Low-Flow Test without a Template

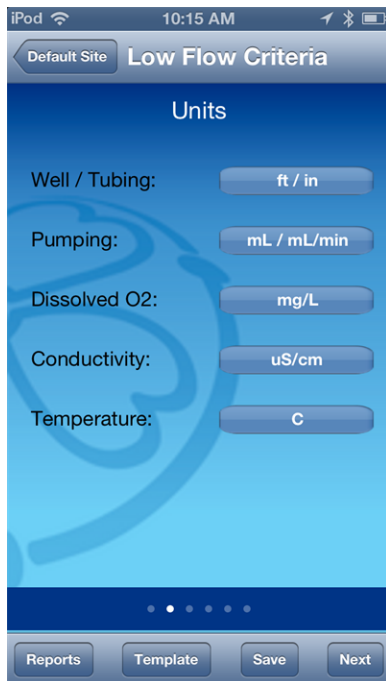
1. Tap the **Gear** icon  to access Low-Flow and tap **Launch**.



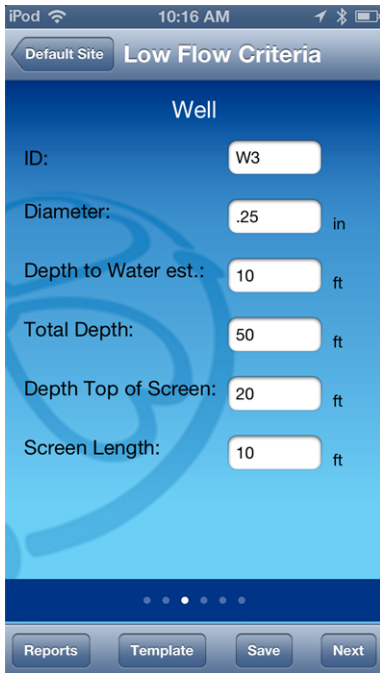
2. The **Project** screen appears.



3. Tap a text-entry field to open the keyboard.
4. Enter the project information. Tap the **Return** button on the keyboard to close the keyboard.
5. Tap the **Next** button to continue to the **Units** screen.



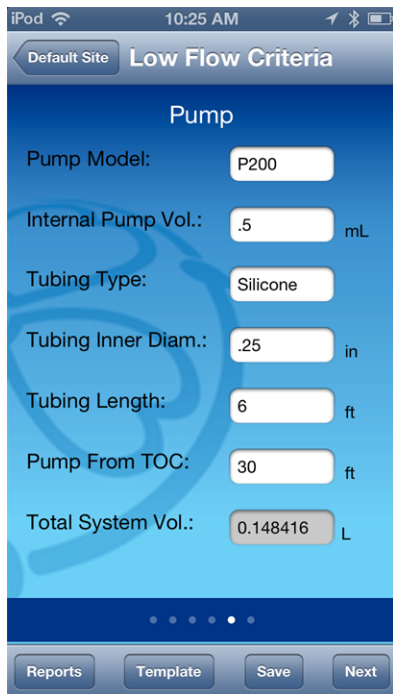
6. If you want to change units, tap the units button and select a different value.
7. Tap the **Next** button to continue to the **Well** screen.



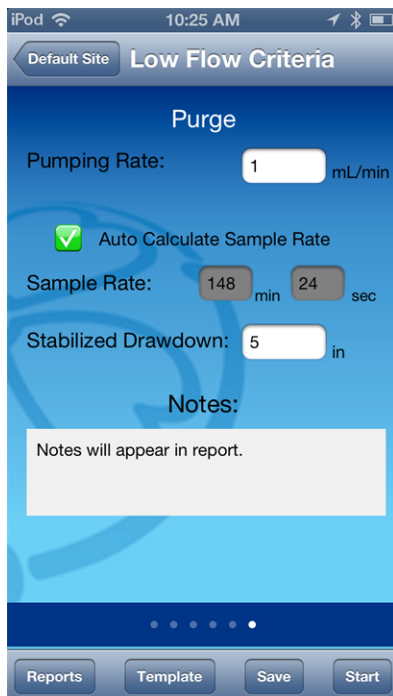
8. Enter the well information.
9. Tap the **Next** button to continue to the **Stabilization** screen.



10. A green checkmark indicates that the stabilization criterion for the parameter is based on percentage rather than an absolute value. Tap a gray box to change from absolute to percentage.
11. Tap the **Next** button to continue to the **Pump** screen.



12. Enter the pump information. The total system volume is calculated using the internal pump volume, the tubing inner diameter, and the tubing length.
13. Tap the **Next** button to continue to the **Purge** screen.



14. Enter the pumping rate you intend to use during the test.
15. Enter the sampling rate you intend to use, or select **Auto Calculate Sample Rate** if you want the software to assign a sample rate.
16. Enter an estimate of the drawdown you expect during the testing. It is optional to enter notes in the **Notes** field.

- 
17. If you would like to save the test set up information as a template to use again later, tap the **Save** button. You can save it using the default name, or tap the field and enter a new name.

### Install the Pump

1. Determine the static water level.
2. Install the pump in the well.
3. Start the pump and determine the optimum final pumping rate and final stabilized drawdown from static water level. This can be calculated using a graduated cylinder, stopwatch, and water level tape.

### Prepare the Flow Cell



1. Select the barbed NPT fitting that will fit with the tubing size.
2. Tape the threads with plumbing tape.
3. Attach a fitting to the inflow port at base of the cylinder and to the outflow port at the top of the cylinder. Tighten until hand-tight. Do not tighten with a wrench.

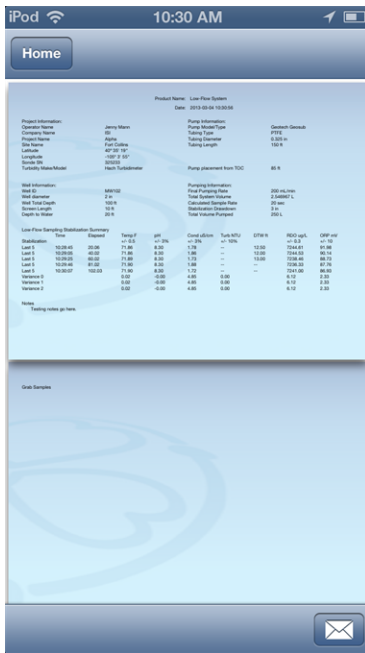


The 3-way valve and check valve are optional.

4. Attach the tubing.
5. Use the attachment screw to connect the flow cell to the base plate.
6. Insert the calibrated SMARTROLL™ MP Instrument.

## Start a Low-Flow Test

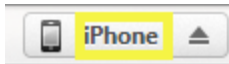
1. After you have entered the setup information, installed the pump, and set up the flow cell you are ready to start the Low-Flow test.
2. From the **Purge** screen tap the **Start** button.
3. The test begins and the sample rate countdown is displayed on screen. The parameters appear after the first countdown is complete.
4. When you are satisfied with the stability of the test, tap the **Accept** button.
5. Enter the final values for drawdown, pumping rate, and total volume pumped.
6. You can accept the default file name, or enter a different name. It is optional to enter notes.
7. Click the **Next** button. The report appears. You can pinch and drag the report to resize the view.



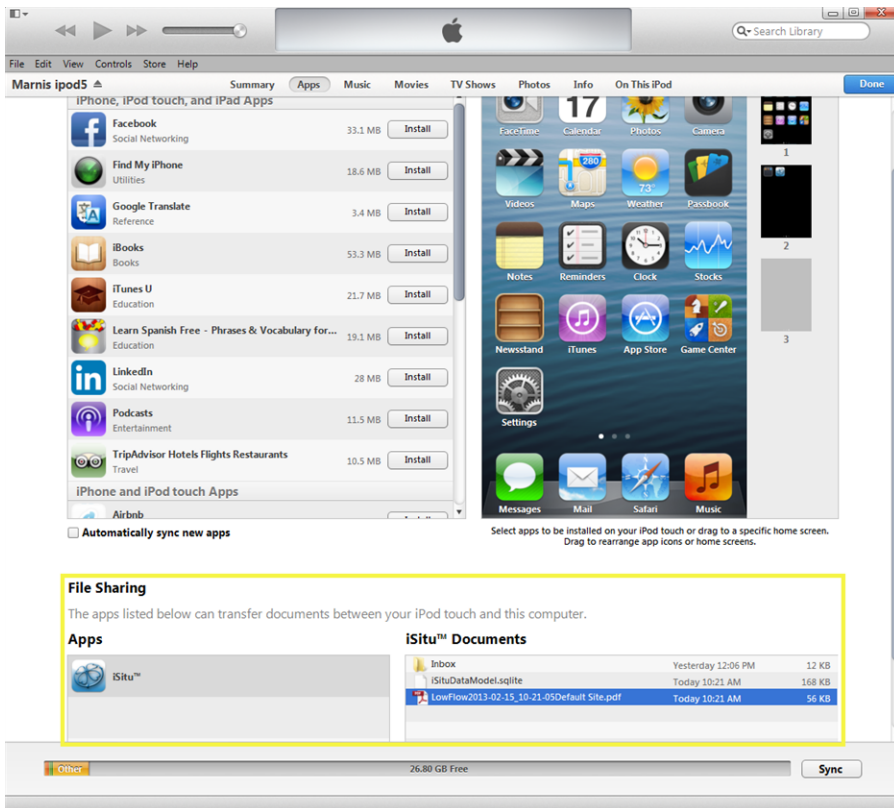
The test report is saved as a PDF file, which can be emailed or transferred to a computer via iTunes®.

## Transfer Low-Flow Report to a Computer

1. Connect the mobile device to a PC with iTunes installed.
2. Click on the Apple device icon next to the eject button.



3. Click the word **Apps** near the top of the screen.
4. Scroll to the bottom of the screen and click on **iSitu**.



5. Click on a file and drag it to your desktop.



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## Care and Maintenance

### Maintenance Schedule

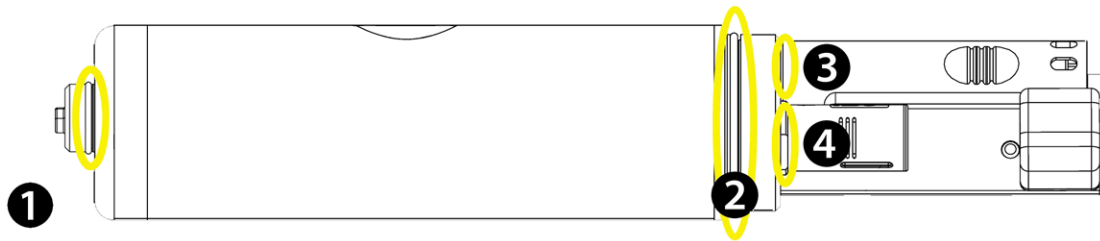
For best results, send the instrument to the manufacturer for factory calibration every 12 to 18 months.

### User-Serviceable Parts

The user-serviceable parts on the instrument include the O-rings, the pH/ORP sensor, and the RDO Sensor Cap.

### O-rings

The instrument has several O-rings that can be maintained by the user in order to keep moisture from entering the instrument and damaging the electronics. Apply a very thin layer of vacuum grease to new O-rings upon installation. The O-rings are located in the following areas.



1	Connector
2	Instrument housing
3	pH sensor
4	RDO Sensor

### RDO Fast Sensor Cap Replacement

The RDO Fast Sensor Cap has a 1-year typical life (15 months of total usage) after the sensor takes its first reading, or 36 months from the date of manufacture. Follow the instructions included in the RDO Sensor Cap Replacement Kit. Replacement caps are available from In-Situ Inc. or your authorized In-Situ distributor.

### pH/ORP Sensor Replacement

To replace the pH/ORP sensor or to refill the reference junction, follow the instructions in the pH/ORP Sensor Instruction Sheet that is included with the replacement sensor.

### Instrument Storage

To store the probe for a week or less, place the probe in the calibration cup with at least 10 mL of clean water to maintain a moist storage environment.

To store the probe for more than a week, perform the following procedure.

1. Remove the pH/ORP sensor and place the orange pH port plug into the empty pH/ORP port to prevent any humidity from entering the probe.
2. Locate the sensor storage bottle in which the pH sensor was originally shipped.
3. Open the bottle and remove the O-ring.
4. Add enough pH storage solution or pH 4 solution to cover the sensor bulb (about 10 mL).

- 
- Slide the O-ring onto the sensor, and then slide the bottle cap over the sensor as shown.



- Place the sensor tip in the buffer and tighten the cap to prevent the glass bulb from drying.

### **Cleaning the pH/ORP Sensor**

Begin with the gentlest cleaning method and continue to the other methods only if necessary. Do not directly touch or wipe the glass bulb.

To clean the pH sensor, gently rinse with cold water. If further cleaning is required, consider the nature of the debris to determine the appropriate method.

#### **Remove Crystalline Deposits**

- Clean the sensor with warm water and mild soap.
- Soak the sensor in 5% HCl solution for 10 to 30 minutes.
- If deposits persist, alternate soaking in 5% HCl and 5% NaOH solutions.

#### **Remove Oily or Greasy Residue**

- Clean the sensor with warm water and mild soap.
- Methanol or isopropyl alcohol may be used for short soaking periods, up to 1 hour.
- Do not soak the sensor in strong solvents, such as chlorinated solvents, ethers, or ketones, including acetone.

#### **Remove Protein-Like Material or Slimy Film**

- Clean the sensor with warm water and mild soap.
- Soak the sensor in 0.1M HCl solution for 10 minutes and then rinse with deionized water.



Note: After performing any of these cleaning methods, rinse the sensor with water and then soak overnight in pH 4 buffer.

### **Cleaning the RDO Sensor**

#### **Clean the Sensor Cap**

- Leave the cap on the sensor.
- Rinse the sensor with clean water from a squirt bottle or spray bottle.
- Gently wipe with a soft cloth or brush if biofouling is present.

- 
- If extensive fouling or mineral build-up is present, soak the RDO Cap end (while the cap is still installed on the sensor) in commercially available household vinegar for 15 minutes, then soak in deionized water for 15 minutes.



Note: Vinegar is safe for all of the sensors on the probe including the RDO Sensor if the sensor cap is on.

- Do not use organic solvents because they will damage the sensing material. Do not remove the cap from the sensor prior to wiping.
- After cleaning the sensor cap, perform a 2-point calibration.

### Clean the Optical Window

- Perform this task only once per year when you replace the sensor cap.
- Pull to remove the sensor cap.
- Gently wipe the optical window with the supplied lens wipe.



Important: Do not wet the interior lens area with water or any solution.

### Cleaning the Conductivity Sensor

- Before you begin, ensure that the RDO Cap and any removable sensors are in place. Rinse the conductivity sensor under running water to remove loose material.
- Follow Cleaning Procedure 1. If debris is still present, progress to the next cleaning procedure. If the debris is removed, skip to the last step.

#### Cleaning Procedure 1

Avoid damaging the plastic material of the conductivity cell. Gently scrub the conductivity cell with a soft swab and mild soap such as a dilute solution of dish detergent. The probe is shipped with polyurethane foam swabs for this purpose. You can also achieve good results using a gentle back-and-forth motion with a thin cotton pipe cleaner. If debris is still present, continue to Cleaning Procedure 2. If the sensor is clean, skip to the last step.

#### Cleaning Procedure 2

Avoid damaging the plastic material of the conductivity cell. Gently scrub the conductivity cell with a foam swab and an aggressive soap such as Alconox cleaner. If debris is still present, continue to Cleaning Procedure 3. If the sensor is clean, skip to the last step.

#### Cleaning Procedure 3

Soak the sensor with dilute acetic acid (10:1 solution) or commercially available household vinegar to pre-soften calcium deposits. Follow this with Cleaning Procedure 1 or Cleaning Procedure 2, depending on the degree of residual contamination. The probe can soak for any length of time in household vinegar. If debris is still present, continue to Cleaning Procedure 4. If the sensor is clean, skip to the last step.

#### Cleaning Procedure 4

Typically apply dilute phosphoric acid (< 27 %) or the consumer product LIME-A-WAY with a soft swab to remove iron or calcium deposits that remain after using Process 3. Do not allow the cleaner to be in contact with the sensor for more than 10 minutes. Rinse well with clean water and continue to the last step.

Check the sensor calibration before redeployment. Recalibrate the sensor when necessary.

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## Declaration of Conformity

Manufacturer: In-Situ, Inc.  
221 East Lincoln Avenue  
Fort Collins, CO 80524  
U.S.A.

Declares that the following product:

Product name: smarTROLL™ MP Handheld  
Model: smarTROLL MP  
Product Description: The smarTROLL MP Handheld is a water quality instrument equipped with sensors for measuring dissolved oxygen, conductivity, temperature, pH, ORP, and depth in natural groundwater and surface water. An iOS mobile device running the iSitu App allows instrument control, data display, and data transfer. A battery pack supplies power to the probe and enables wireless communication between the iOS device and the probe. The battery pack includes a barometric pressure sensor and an additional temperature sensor.

The device meets or exceeds the following international requirements and compliance standards:

Under the EMC Directive 2004/108EC

- IEC 61000-6-1: 2005 - Electromagnetic Compatibility (EMC) - Part 6-1: Generic Standards - Immunity for Residential, Commercial and Light-Industrial Environments
- IEC 61000-6-3: 2006 - Electromagnetic Compatibility (EMC) - Part 6-3: Generic Standards - Emission Standard for Residential, Commercial and Light-Industrial Environments
- Electrostatic Discharge Immunity Test (IEC 61000-4-2:2008)
- Radiated, Radio-Frequency, Electromagnetic Field Immunity Test (IEC 61000-4-3:2006, A1:2007, A2:2010)
- EFT/Burst Immunity Test (IEC 61000-4-4:2004, A1:2010)
- Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:2008)
- Power Frequency Magnetic Field Immunity Test (IEC 61000-4-8:2009)
- Radiated Electromagnetic Emissions (CISPR 22: 2008)



Jon Firooz  
Vice President of R & D  
In-Situ, Inc.  
April 5, 2013



**APPENDIX B**

**LABORATORY ANALYTICAL AND FIELD SAMPLING  
REPORTS**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-155434-1

TestAmerica Sample Delivery Group: App. III

Client Project/Site: CCR - Plant Wansley - Landfill

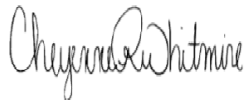
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

7/16/2018 7:11:44 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 - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

**Job ID: 400-155434-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-155434-1

#### HPLC/IC

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWA-3 (400-155434-10), GWC-14 (400-155434-14), DUP-2 (400-155434-18) and GWC-7 (400-155434-33). Elevated reporting limits (RLs) are provided.

#### Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 403475 and analytical batch 403649 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 post digestion spike % recovery for Calcium associated with batch 404357 was outside of control limits.

#### General Chemistry

Method(s) SM 2540C: The sample duplicate precision for the following sample associated with analytical batch 402554 was outside control limits: (400-155434-A-20 DU). The associated Laboratory Control Sample (LCS) met acceptance criteria.

Method(s) SM 2540C: The sample duplicate precision for the following sample associated with analytical batch 402866 was outside control limits: (400-155538-A-1) and (400-155538-A-1 DU). Non-homogeneity of the sample matrix is suspected. The associated laboratory control sample (LCS) precision met acceptance criteria.



# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: GWA-1

## Lab Sample ID: 400-155434-1

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
Calcium	0.75		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: GWA-2

## Lab Sample ID: 400-155434-2

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	1.0		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	3.4		0.25	0.13	mg/L	5		6020	Total Recoverable

## Client Sample ID: GWA-4

## Lab Sample ID: 400-155434-3

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	0.084	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	10		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	26		0.25	0.13	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-29

## Lab Sample ID: 400-155434-4

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 Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-155434-5

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
Sulfate	2.7		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.0		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: EB-1-6-19-18

## Lab Sample ID: 400-155434-6

No Detections.

## Client Sample ID: DUP-1

## Lab Sample ID: 400-155434-7

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	7.1		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 - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: DUP-1 (Continued)

## Lab Sample ID: 400-155434-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	64		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FB-1-6-19-18

## Lab Sample ID: 400-155434-8

No Detections.

## Client Sample ID: GWA-28

## Lab Sample ID: 400-155434-9

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	1.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	0.94	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.5		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-3

## Lab Sample ID: 400-155434-10

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
Sulfate - DL	100		5.0	3.5	mg/L	5		300.0	Total/NA
Calcium	43		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	230		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-155434-11

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	2.5		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.0		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: 400-155434-12

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	0.18	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.7		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

## Client Sample ID: GWC-11

## Lab Sample ID: 400-155434-13

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
Fluoride	0.13	J	0.20	0.082	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: GWC-11 (Continued)

## Lab Sample ID: 400-155434-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	13		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-14

## Lab Sample ID: 400-155434-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	18		1.0	0.70	mg/L	1		300.0	Total/NA
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
Calcium	45		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	310		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-15

## Lab Sample ID: 400-155434-15

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
Fluoride	0.093	J	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
Calcium	11		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: 400-155434-16

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	10		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	94		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-23

## Lab Sample ID: 400-155434-17

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
Calcium	3.4		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: DUP-2

## Lab Sample ID: 400-155434-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	18		1.0	0.70	mg/L	1		300.0	Total/NA
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
Calcium	45		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	380		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 - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: FB-2-6-20-18

## Lab Sample ID: 400-155434-19

No Detections.

## Client Sample ID: GWC-16

## Lab Sample ID: 400-155434-20

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	6.9		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-21

## Lab Sample ID: 400-155434-21

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
Calcium	3.6		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-8

## Lab Sample ID: 400-155434-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	29		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	210		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-9

## Lab Sample ID: 400-155434-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.5		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.070		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	13		0.25	0.13	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-10

## Lab Sample ID: 400-155434-24

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
Fluoride	0.76		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	13		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-18

## Lab Sample ID: 400-155434-25

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 - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: GWC-18 (Continued)

## Lab Sample ID: 400-155434-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	6.4		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-19

## Lab Sample ID: 400-155434-26

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
Calcium	7.3		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-20

## Lab Sample ID: 400-155434-27

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	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	8.6		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	78		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-30

## Lab Sample ID: 400-155434-28

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
Sulfate	1.0		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: EB-2-6-21-18

## Lab Sample ID: 400-155434-29

No Detections.

## Client Sample ID: FB-3-6-21-18

## Lab Sample ID: 400-155434-30

No Detections.

## Client Sample ID: GWC-5

## Lab Sample ID: 400-155434-31

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	0.097	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	30		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	35		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-6

## Lab Sample ID: 400-155434-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		1.0	0.89	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Client Sample ID: GWC-6 (Continued)

## Lab Sample ID: 400-155434-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	12		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-7

## Lab Sample ID: 400-155434-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.25		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate - DL	62		2.0	1.4	mg/L	2		300.0	Total/NA
Calcium	54		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	400		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: EB-3-6-25-18

## Lab Sample ID: 400-155434-34

No Detections.

## Client Sample ID: DUP-3

## Lab Sample ID: 400-155434-35

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	11		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	12		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-32

## Lab Sample ID: 400-155434-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.89	J	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	12		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	7.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-33

## Lab Sample ID: 400-155434-37

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	2.1		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
Calcium	13		0.25	0.13	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-12

## Lab Sample ID: 400-155434-38

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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: GWC-12 (Continued)

## Lab Sample ID: 400-155434-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.18	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
Boron	0.024	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	38		0.25	0.13	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-17

## Lab Sample ID: 400-155434-39

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	7.7		0.25	0.13	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-24

## Lab Sample ID: 400-155434-40

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
Calcium	0.38		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-25

## Lab Sample ID: 400-155434-41

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	12		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	8.5		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-26

## Lab Sample ID: 400-155434-42

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	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-27

## Lab Sample ID: 400-155434-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.92	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.73		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	1.7		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.4		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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Client Sample ID: GWC-31

## Lab Sample ID: 400-155434-44

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
Fluoride	1.6		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	14		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	9.6		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	92		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: EB-4-6-27-18

## Lab Sample ID: 400-155434-45

No Detections.

## Client Sample ID: DUP-4

## Lab Sample ID: 400-155434-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.94	J	1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.72		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
Calcium	2.4		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: FB-4-6-27-18

## Lab Sample ID: 400-155434-47

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

### Protocol References:

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

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

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

### Laboratory References:

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



# Sample Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-155434-1	GWA-1	Water	06/19/18 13:26	06/21/18 09:58
400-155434-2	GWA-2	Water	06/19/18 14:05	06/21/18 09:58
400-155434-3	GWA-4	Water	06/19/18 14:00	06/21/18 09:58
400-155434-4	GWA-29	Water	06/19/18 11:50	06/21/18 09:58
400-155434-5	GWC-35	Water	06/19/18 15:30	06/21/18 09:58
400-155434-6	EB-1-6-19-18	Water	06/19/18 16:00	06/21/18 09:58
400-155434-7	DUP-1	Water	06/19/18 00:00	06/21/18 09:58
400-155434-8	FB-1-6-19-18	Water	06/19/18 13:55	06/21/18 09:58
400-155434-9	GWA-28	Water	06/19/18 16:10	06/22/18 10:03
400-155434-10	GWA-3	Water	06/20/18 09:30	06/22/18 10:03
400-155434-11	GWC-13	Water	06/20/18 11:20	06/22/18 10:03
400-155434-12	GWC-34	Water	06/20/18 10:30	06/22/18 10:03
400-155434-13	GWC-11	Water	06/20/18 12:30	06/22/18 10:03
400-155434-14	GWC-14	Water	06/20/18 13:20	06/22/18 10:03
400-155434-15	GWC-15	Water	06/20/18 12:00	06/22/18 10:03
400-155434-16	GWC-22	Water	06/20/18 13:11	06/22/18 10:03
400-155434-17	GWC-23	Water	06/20/18 11:11	06/22/18 10:03
400-155434-18	DUP-2	Water	06/20/18 00:00	06/22/18 10:03
400-155434-19	FB-2-6-20-18	Water	06/20/18 13:30	06/22/18 10:03
400-155434-20	GWC-16	Water	06/20/18 14:30	06/23/18 09:30
400-155434-21	GWC-21	Water	06/20/18 14:50	06/23/18 09:30
400-155434-22	GWC-8	Water	06/21/18 12:20	06/23/18 09:30
400-155434-23	GWC-9	Water	06/21/18 11:25	06/23/18 09:30
400-155434-24	GWC-10	Water	06/21/18 09:45	06/23/18 09:30
400-155434-25	GWC-18	Water	06/21/18 13:34	06/23/18 09:30
400-155434-26	GWC-19	Water	06/21/18 12:28	06/23/18 09:30
400-155434-27	GWC-20	Water	06/21/18 10:20	06/23/18 09:30
400-155434-28	GWC-30	Water	06/21/18 13:35	06/23/18 09:30
400-155434-29	EB-2-6-21-18	Water	06/21/18 10:45	06/23/18 09:30
400-155434-30	FB-3-6-21-18	Water	06/21/18 12:50	06/23/18 09:30
400-155434-31	GWC-5	Water	06/25/18 14:25	06/28/18 09:45
400-155434-32	GWC-6	Water	06/25/18 12:20	06/28/18 09:45
400-155434-33	GWC-7	Water	06/25/18 10:55	06/28/18 09:45
400-155434-34	EB-3-6-25-18	Water	06/25/18 10:10	06/28/18 09:45
400-155434-35	DUP-3	Water	06/25/18 00:00	06/28/18 09:45
400-155434-36	GWC-32	Water	06/26/18 13:10	06/28/18 09:45
400-155434-37	GWC-33	Water	06/26/18 11:10	06/28/18 09:45
400-155434-38	GWC-12	Water	06/26/18 12:40	06/28/18 09:45
400-155434-39	GWC-17	Water	06/26/18 14:30	06/28/18 09:45
400-155434-40	GWC-24	Water	06/27/18 16:10	06/30/18 09:27
400-155434-41	GWC-25	Water	06/27/18 15:35	06/30/18 09:27
400-155434-42	GWC-26	Water	06/27/18 12:15	06/30/18 09:27
400-155434-43	GWC-27	Water	06/27/18 12:35	06/30/18 09:27
400-155434-44	GWC-31	Water	06/27/18 10:00	06/30/18 09:27
400-155434-45	EB-4-6-27-18	Water	06/27/18 13:00	06/30/18 09:27
400-155434-46	DUP-4	Water	06/27/18 00:00	06/30/18 09:27
400-155434-47	FB-4-6-27-18	Water	06/27/18 12:00	06/30/18 09:27

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWA-1**  
**Date Collected: 06/19/18 13:26**  
**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-1**  
**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			07/06/18 04:56	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 04:56	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 04:56	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		06/28/18 09:33	06/29/18 19:39	5
<b>Calcium</b>	<b>0.75</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 19:39	5

**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			06/26/18 16:03	1

- 1
- 2
- 3
- 4
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- 8
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- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWA-2**  
**Date Collected: 06/19/18 14:05**  
**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-2**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.6</b>		1.0	0.89	mg/L			07/06/18 03:47	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 03:47	1
<b>Sulfate</b>	<b>1.0</b>		1.0	0.70	mg/L			07/06/18 03:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/28/18 09:33	06/29/18 19:43	5
<b>Calcium</b>	<b>3.4</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 19:43	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			06/26/18 16:03	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWA-4**  
**Date Collected: 06/19/18 14:00**  
**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-3**  
**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			07/06/18 05:18	1
Fluoride	0.084	J	0.20	0.082	mg/L			07/06/18 05:18	1
Sulfate	10		1.0	0.70	mg/L			07/06/18 05:18	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		06/28/18 09:33	06/29/18 20:06	5
Calcium	26		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:06	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			06/26/18 16:03	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWA-29**  
**Date Collected: 06/19/18 11:50**  
**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-4**  
**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			07/06/18 05:41	1
Fluoride	2.3		0.20	0.082	mg/L			07/06/18 05:41	1
Sulfate	7.0		1.0	0.70	mg/L			07/06/18 05:41	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		06/28/18 09:33	06/29/18 20:10	5
Calcium	4.1		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:10	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			06/26/18 16:03	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-35**

**Date Collected: 06/19/18 15:30**

**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-5**

**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			07/06/18 06:04	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 06:04	1
<b>Sulfate</b>	<b>2.7</b>		1.0	0.70	mg/L			07/06/18 06:04	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		06/28/18 09:33	06/29/18 20:37	5
<b>Calcium</b>	<b>2.0</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:37	5

**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			06/26/18 16:03	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: EB-1-6-19-18**

**Lab Sample ID: 400-155434-6**

**Date Collected: 06/19/18 16:00**

**Matrix: Water**

**Date Received: 06/21/18 09:58**

**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			07/06/18 07:13	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 07:13	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 07:13	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		06/28/18 09:33	06/29/18 20:42	5
Calcium	<0.13		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:42	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			06/26/18 16:03	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: DUP-1**

**Date Collected: 06/19/18 00:00**

**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-7**

**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			07/06/18 07:35	1
Fluoride	2.3		0.20	0.082	mg/L			07/06/18 07:35	1
Sulfate	7.1		1.0	0.70	mg/L			07/06/18 07:35	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		06/28/18 09:33	06/29/18 20:46	5
Calcium	4.1		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:46	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			06/25/18 15:06	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: FB-1-6-19-18**

**Lab Sample ID: 400-155434-8**

**Date Collected: 06/19/18 13:55**

**Matrix: Water**

**Date Received: 06/21/18 09:58**

**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			07/06/18 07:58	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 07:58	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 07:58	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		06/28/18 09:33	06/29/18 20:51	5
Calcium	<0.13		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:51	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			06/26/18 16:03	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWA-28**

**Date Collected: 06/19/18 16:10**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-9**

**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			07/06/18 08:21	1
Fluoride	1.6		0.20	0.082	mg/L			07/06/18 08:21	1
Sulfate	0.94	J	1.0	0.70	mg/L			07/06/18 08:21	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		06/28/18 09:33	06/29/18 20:55	5
Calcium	2.5		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 20:55	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	70		5.0	3.4	mg/L			06/26/18 16:03	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 - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWA-3**  
**Date Collected: 06/20/18 09:30**  
**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-10**  
**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			07/06/18 08:44	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 08:44	1

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	100		5.0	3.5	mg/L			07/09/18 14:30	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		06/28/18 09:33	06/29/18 21:00	5
Calcium	43		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:00	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			06/26/18 16:44	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-13**

**Date Collected: 06/20/18 11:20**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-11**

**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			07/06/18 09:07	1
Fluoride	0.11	J	0.20	0.082	mg/L			07/06/18 09:07	1
Sulfate	2.5		1.0	0.70	mg/L			07/06/18 09:07	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		06/28/18 09:33	06/29/18 21:04	5
Calcium	4.0		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:04	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			06/26/18 16:44	1

- 1
- 2
- 3
- 4
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- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-34**

**Date Collected: 06/20/18 10:30**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-12**

**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			07/06/18 09:52	1
Fluoride	0.18	J	0.20	0.082	mg/L			07/06/18 09:52	1
Sulfate	1.7		1.0	0.70	mg/L			07/06/18 09:52	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		06/28/18 09:33	06/29/18 21:09	5
Calcium	3.2		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:09	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			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-11**  
**Date Collected: 06/20/18 12:30**  
**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-13**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		1.0	0.89	mg/L			07/06/18 10:15	1
Fluoride	0.13	J	0.20	0.082	mg/L			07/06/18 10:15	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 10:15	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		06/28/18 09:33	06/29/18 21:13	5
Calcium	13		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:13	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	140		5.0	3.4	mg/L			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-14**  
**Date Collected: 06/20/18 13:20**  
**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-14**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 10:38	1
<b>Sulfate</b>	<b>18</b>		1.0	0.70	mg/L			07/06/18 10:38	1

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>150</b>		5.0	4.5	mg/L			07/09/18 14:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Boron</b>	<b>1.2</b>		0.050	0.021	mg/L		06/28/18 09:33	06/29/18 21:18	5
<b>Calcium</b>	<b>45</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:18	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>310</b>		5.0	3.4	mg/L			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-15**

**Date Collected: 06/20/18 12:00**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-15**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.89	mg/L			07/06/18 11:46	1
Fluoride	0.093	J	0.20	0.082	mg/L			07/06/18 11:46	1
Sulfate	2.1		1.0	0.70	mg/L			07/06/18 11:46	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		06/28/18 09:33	06/29/18 21:45	5
Calcium	11		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:45	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	64		5.0	3.4	mg/L			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-22**

**Date Collected: 06/20/18 13:11**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-16**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			07/06/18 12:09	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 12:09	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 12:09	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		06/28/18 09:33	06/29/18 21:49	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:49	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>94</b>		5.0	3.4	mg/L			06/26/18 16:44	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-23**

**Date Collected: 06/20/18 11:11**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-17**

**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			07/07/18 00:09	1
Fluoride	<0.082		0.20	0.082	mg/L			07/07/18 00:09	1
Sulfate	<0.70		1.0	0.70	mg/L			07/07/18 00:09	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		06/28/18 09:33	06/29/18 21:54	5
<b>Calcium</b>	<b>3.4</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:54	5

**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			06/26/18 16:44	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: DUP-2**

**Date Collected: 06/20/18 00:00**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-18**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.082		0.20	0.082	mg/L			07/07/18 00:32	1
<b>Sulfate</b>	<b>18</b>		1.0	0.70	mg/L			07/07/18 00:32	1

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>150</b>		5.0	4.5	mg/L			07/09/18 23:38	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Boron</b>	<b>1.2</b>		0.050	0.021	mg/L		06/28/18 09:33	06/29/18 21:58	5
<b>Calcium</b>	<b>45</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 21:58	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>380</b>		5.0	3.4	mg/L			06/26/18 16:03	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: FB-2-6-20-18**

**Lab Sample ID: 400-155434-19**

**Date Collected: 06/20/18 13:30**

**Matrix: Water**

**Date Received: 06/22/18 10:03**

**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			07/07/18 00:55	1
Fluoride	<0.082		0.20	0.082	mg/L			07/07/18 00:55	1
Sulfate	<0.70		1.0	0.70	mg/L			07/07/18 00:55	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		06/28/18 09:33	06/29/18 22:03	5
Calcium	<0.13		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 22:03	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			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-16**  
**Date Collected: 06/20/18 14:30**  
**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-20**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			07/09/18 15:16	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 15:16	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 15:16	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		06/28/18 09:33	06/29/18 22:07	5
<b>Calcium</b>	<b>6.9</b>		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 22:07	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			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-21**  
**Date Collected: 06/20/18 14:50**  
**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-21**  
**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			07/09/18 17:10	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 17:10	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 17:10	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		07/05/18 09:32	07/05/18 16:12	5
<b>Calcium</b>	<b>3.6</b>		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 16:12	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			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-8**  
**Date Collected: 06/21/18 12:20**  
**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-22**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>4.5</b>		1.0	0.89	mg/L			07/09/18 17:33	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 17:33	1
<b>Sulfate</b>	<b>11</b>		1.0	0.70	mg/L			07/09/18 17:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021	F1	0.050	0.021	mg/L		07/05/18 09:32	07/05/18 16:16	5
<b>Calcium</b>	<b>29</b>		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 16:16	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>210</b>		5.0	3.4	mg/L			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-9**

**Date Collected: 06/21/18 11:25**

**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-23**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		1.0	0.89	mg/L			07/09/18 17:56	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 17:56	1
Sulfate	13		1.0	0.70	mg/L			07/09/18 17:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.070		0.050	0.021	mg/L		07/05/18 09:32	07/05/18 16:39	5
Calcium	13		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 16:39	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-10**  
**Date Collected: 06/21/18 09:45**  
**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-24**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.89	mg/L			07/09/18 18:19	1
Fluoride	0.76		0.20	0.082	mg/L			07/09/18 18:19	1
Sulfate	21		1.0	0.70	mg/L			07/09/18 18:19	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		07/05/18 09:32	07/05/18 17:01	5
Calcium	13		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 17:01	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			06/26/18 16:44	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-18**

**Date Collected: 06/21/18 13:34**

**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-25**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			07/09/18 18:42	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 18:42	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 18:42	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		07/05/18 09:32	07/05/18 17:06	5
<b>Calcium</b>	<b>6.4</b>		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 17:06	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			06/26/18 16:44	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 - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-19**

**Date Collected: 06/21/18 12:28**

**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-26**

**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			07/09/18 19:04	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 19:04	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 19:04	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		07/05/18 09:32	07/05/18 17:10	5
<b>Calcium</b>	<b>7.3</b>		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 17:10	5

## 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			06/26/18 16:44	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-20**  
**Date Collected: 06/21/18 10:20**  
**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-27**  
**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			07/09/18 19:50	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 19:50	1
<b>Sulfate</b>	<b>1.3</b>		1.0	0.70	mg/L			07/09/18 19:50	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		07/05/18 09:32	07/06/18 16:35	5
<b>Calcium</b>	<b>8.6</b>		0.25	0.13	mg/L		07/05/18 09:32	07/06/18 16:35	5

### 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			06/28/18 17:17	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-30**

**Date Collected: 06/21/18 13:35**

**Date Received: 06/23/18 09:30**

**Lab Sample ID: 400-155434-28**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.2</b>		1.0	0.89	mg/L			07/09/18 20:13	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 20:13	1
<b>Sulfate</b>	<b>1.0</b>		1.0	0.70	mg/L			07/09/18 20:13	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		07/05/18 09:32	07/06/18 16:40	5
<b>Calcium</b>	<b>3.3</b>		0.25	0.13	mg/L		07/05/18 09:32	07/06/18 16:40	5

**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			06/28/18 17:17	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: EB-2-6-21-18**

**Lab Sample ID: 400-155434-29**

**Date Collected: 06/21/18 10:45**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

## 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			07/09/18 20:36	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 20:36	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 20:36	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		07/05/18 09:32	07/05/18 17:24	5
Calcium	<0.13		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 17:24	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			06/28/18 17:17	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: FB-3-6-21-18**

**Lab Sample ID: 400-155434-30**

**Date Collected: 06/21/18 12:50**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

**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			07/09/18 21:44	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 21:44	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 21:44	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		07/05/18 09:32	07/05/18 17:28	5
Calcium	<0.13		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 17:28	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			06/28/18 17:17	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-5**  
**Date Collected: 06/25/18 14:25**  
**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-31**  
**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			07/11/18 14:27	1
Fluoride	0.097	J	0.20	0.082	mg/L			07/11/18 14:27	1
Sulfate	30		1.0	0.70	mg/L			07/11/18 14:27	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		07/12/18 08:53	07/12/18 17:57	5
Calcium	35		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 17:57	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			07/01/18 10:37	1

- 1
- 2
- 3
- 4
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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-6**  
**Date Collected: 06/25/18 12:20**  
**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-32**  
**Matrix: Water**

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.5</b>		1.0	0.89	mg/L			07/11/18 19:01	1
Fluoride	<0.082		0.20	0.082	mg/L			07/11/18 19:01	1
<b>Sulfate</b>	<b>11</b>		1.0	0.70	mg/L			07/11/18 19:01	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		07/12/18 08:53	07/12/18 18:42	5
<b>Calcium</b>	<b>12</b>		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 18:42	5

### 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			07/01/18 10:37	1

- 1
- 2
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- 11
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- 13
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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-7**

**Date Collected: 06/25/18 10:55**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-33**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		1.0	0.89	mg/L			07/11/18 19:46	1
Fluoride	0.25		0.20	0.082	mg/L			07/11/18 19:46	1

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	62		2.0	1.4	mg/L			07/12/18 13:51	2

**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		07/12/18 08:53	07/12/18 18:46	5
Calcium	54		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 18:46	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	400		5.0	3.4	mg/L			07/01/18 10:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: EB-3-6-25-18**

**Lab Sample ID: 400-155434-34**

**Date Collected: 06/25/18 10:10**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

**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			07/11/18 20:09	1
Fluoride	<0.082		0.20	0.082	mg/L			07/11/18 20:09	1
Sulfate	<0.70		1.0	0.70	mg/L			07/11/18 20:09	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		07/12/18 08:53	07/12/18 18:51	5
Calcium	<0.13		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 18:51	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			07/01/18 10:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: DUP-3**

**Date Collected: 06/25/18 00:00**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-35**

**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			07/11/18 21:18	1
Fluoride	<0.082		0.20	0.082	mg/L			07/11/18 21:18	1
<b>Sulfate</b>	<b>11</b>		1.0	0.70	mg/L			07/11/18 21:18	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		07/12/18 08:53	07/12/18 18:55	5
<b>Calcium</b>	<b>12</b>		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 18:55	5

**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			07/01/18 10:37	1

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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-32**  
**Date Collected: 06/26/18 13:10**  
**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-36**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.89	J	1.0	0.89	mg/L			07/11/18 21:40	1
Fluoride	2.6		0.20	0.082	mg/L			07/11/18 21:40	1
Sulfate	12		1.0	0.70	mg/L			07/11/18 21:40	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		07/12/18 08:53	07/12/18 19:00	5
Calcium	7.1		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:00	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			07/01/18 10:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-33**

**Date Collected: 06/26/18 11:10**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-37**

**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			07/11/18 22:03	1
Fluoride	2.1		0.20	0.082	mg/L			07/11/18 22:03	1
Sulfate	9.2		1.0	0.70	mg/L			07/11/18 22:03	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		07/12/18 08:53	07/12/18 19:04	5
Calcium	13		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:04	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			07/01/18 10:37	1

- 1
- 2
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- 11
- 12
- 13
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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-12**  
**Date Collected: 06/26/18 12:40**  
**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-38**  
**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			07/12/18 05:17	1
Fluoride	0.18	J	0.20	0.082	mg/L			07/12/18 05:17	1
Sulfate	23		1.0	0.70	mg/L			07/12/18 05:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.024	J	0.050	0.021	mg/L		07/12/18 08:53	07/12/18 19:31	5
Calcium	38		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:31	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			07/01/18 10:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-17**  
**Date Collected: 06/26/18 14:30**  
**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-39**  
**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			07/12/18 05:40	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 05:40	1
Sulfate	<0.70		1.0	0.70	mg/L			07/12/18 05:40	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		07/12/18 08:53	07/12/18 19:36	5
<b>Calcium</b>	<b>7.7</b>		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:36	5

### 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			07/01/18 10:37	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-24**

**Date Collected: 06/27/18 16:10**

**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-40**

**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			07/12/18 06:03	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 06:03	1
Sulfate	<0.70		1.0	0.70	mg/L			07/12/18 06:03	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		07/12/18 08:53	07/12/18 19:40	5
<b>Calcium</b>	<b>0.38</b>		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:40	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>24</b>		5.0	3.4	mg/L			07/02/18 16:59	1



# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-25**  
**Date Collected: 06/27/18 15:35**  
**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-41**  
**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			07/12/18 06:25	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 06:25	1
<b>Sulfate</b>	<b>12</b>		1.0	0.70	mg/L			07/12/18 06:25	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		07/12/18 08:53	07/12/18 19:45	5
<b>Calcium</b>	<b>8.5</b>		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:45	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			07/02/18 16:59	1

- 1
- 2
- 3
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- 11
- 12
- 13
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# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-26**

**Date Collected: 06/27/18 12:15**

**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-42**

**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			07/12/18 03:23	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 03:23	1
Sulfate	<0.70		1.0	0.70	mg/L			07/12/18 03:23	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		07/12/18 08:53	07/12/18 19:49	5
<b>Calcium</b>	<b>1.7</b>		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:49	5

**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			07/02/18 16:59	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 - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-27**

**Date Collected: 06/27/18 12:35**

**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-43**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.92	J	1.0	0.89	mg/L			07/12/18 06:48	1
Fluoride	0.73		0.20	0.082	mg/L			07/12/18 06:48	1
Sulfate	1.7		1.0	0.70	mg/L			07/12/18 06:48	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		07/12/18 08:53	07/12/18 19:54	5
Calcium	2.4		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:54	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			07/02/18 16:59	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-31**  
**Date Collected: 06/27/18 10:00**  
**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-44**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.5		1.0	0.89	mg/L			07/12/18 07:11	1
Fluoride	1.6		0.20	0.082	mg/L			07/12/18 07:11	1
Sulfate	14		1.0	0.70	mg/L			07/12/18 07:11	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		07/12/18 08:53	07/12/18 19:58	5
Calcium	9.6		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 19:58	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	92		5.0	3.4	mg/L			07/02/18 16:59	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: EB-4-6-27-18**  
**Date Collected: 06/27/18 13:00**  
**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-45**  
**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			07/12/18 07:57	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 07:57	1
Sulfate	<0.70		1.0	0.70	mg/L			07/12/18 07:57	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		07/12/18 08:53	07/12/18 20:03	5
Calcium	<0.13		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 20:03	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			07/02/18 16:59	1

# Client Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: DUP-4**

**Date Collected: 06/27/18 00:00**

**Date Received: 06/30/18 09:27**

**Lab Sample ID: 400-155434-46**

**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.94	J	1.0	0.89	mg/L			07/12/18 08:19	1
Fluoride	0.72		0.20	0.082	mg/L			07/12/18 08:19	1
Sulfate	1.6		1.0	0.70	mg/L			07/12/18 08:19	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		07/12/18 08:53	07/12/18 20:07	5
Calcium	2.4		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 20:07	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		5.0	3.4	mg/L			07/01/18 10:37	1

# Client Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

**Client Sample ID: FB-4-6-27-18**

**Lab Sample ID: 400-155434-47**

**Date Collected: 06/27/18 12:00**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

## 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			07/12/18 08:42	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 08:42	1
Sulfate	<0.70		1.0	0.70	mg/L			07/12/18 08:42	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		07/12/18 08:53	07/12/18 20:12	5
Calcium	<0.13		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 20:12	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			07/02/18 16:59	1

# Definitions/Glossary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Qualifiers

### HPLC/IC

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

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
F3	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	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 - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Client Sample ID: GWA-1

Date Collected: 06/19/18 13:26

Date Received: 06/21/18 09:58

## Lab Sample ID: 400-155434-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 04:56	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 19:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

## Client Sample ID: GWA-2

Date Collected: 06/19/18 14:05

Date Received: 06/21/18 09:58

## Lab Sample ID: 400-155434-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 03:47	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 19:43	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

## Client Sample ID: GWA-4

Date Collected: 06/19/18 14:00

Date Received: 06/21/18 09:58

## Lab Sample ID: 400-155434-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 05:18	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

## Client Sample ID: GWA-29

Date Collected: 06/19/18 11:50

Date Received: 06/21/18 09:58

## Lab Sample ID: 400-155434-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 05:41	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:10	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

## Client Sample ID: GWC-35

Date Collected: 06/19/18 15:30

Date Received: 06/21/18 09:58

## Lab Sample ID: 400-155434-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 06:04	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-35**

**Date Collected: 06/19/18 15:30**

**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:37	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

**Client Sample ID: EB-1-6-19-18**

**Date Collected: 06/19/18 16:00**

**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 07:13	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

**Client Sample ID: DUP-1**

**Date Collected: 06/19/18 00:00**

**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 07:35	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:46	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402402	06/25/18 15:06	RRC	TAL PEN

**Client Sample ID: FB-1-6-19-18**

**Date Collected: 06/19/18 13:55**

**Date Received: 06/21/18 09:58**

**Lab Sample ID: 400-155434-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 07:58	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:51	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

**Client Sample ID: GWA-28**

**Date Collected: 06/19/18 16:10**

**Date Received: 06/22/18 10:03**

**Lab Sample ID: 400-155434-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 08:21	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 20:55	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Client Sample ID: GWA-3

## Lab Sample ID: 400-155434-10

Date Collected: 06/20/18 09:30

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 08:44	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	403836	07/09/18 14:30	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:00	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-13

## Lab Sample ID: 400-155434-11

Date Collected: 06/20/18 11:20

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 09:07	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:04	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-34

## Lab Sample ID: 400-155434-12

Date Collected: 06/20/18 10:30

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 09:52	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:09	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-11

## Lab Sample ID: 400-155434-13

Date Collected: 06/20/18 12:30

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 10:15	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:13	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-14

## Lab Sample ID: 400-155434-14

Date Collected: 06/20/18 13:20

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 10:38	JAW	TAL PEN

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Client Sample ID: GWC-14

Lab Sample ID: 400-155434-14

Date Collected: 06/20/18 13:20

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	5	403836	07/09/18 14:53	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:18	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-15

Lab Sample ID: 400-155434-15

Date Collected: 06/20/18 12:00

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 11:46	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-22

Lab Sample ID: 400-155434-16

Date Collected: 06/20/18 13:11

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403606	07/06/18 12:09	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:49	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: GWC-23

Lab Sample ID: 400-155434-17

Date Collected: 06/20/18 11:11

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403668	07/07/18 00:09	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

## Client Sample ID: DUP-2

Lab Sample ID: 400-155434-18

Date Collected: 06/20/18 00:00

Matrix: Water

Date Received: 06/22/18 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403668	07/07/18 00:32	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	5	403836	07/09/18 23:38	JAW	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: DUP-2**

**Lab Sample ID: 400-155434-18**

**Date Collected: 06/20/18 00:00**

**Matrix: Water**

**Date Received: 06/22/18 10:03**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 21:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402552	06/26/18 16:03	RRC	TAL PEN

**Client Sample ID: FB-2-6-20-18**

**Lab Sample ID: 400-155434-19**

**Date Collected: 06/20/18 13:30**

**Matrix: Water**

**Date Received: 06/22/18 10:03**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403668	07/07/18 00:55	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 22:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-155434-20**

**Date Collected: 06/20/18 14:30**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 15:16	JAW	TAL PEN
Total Recoverable	Prep	3005A			402833	06/28/18 09:33	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403232	06/29/18 22:07	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-21**

**Lab Sample ID: 400-155434-21**

**Date Collected: 06/20/18 14:50**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 17:10	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 16:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-155434-22**

**Date Collected: 06/21/18 12:20**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 17:33	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 16:16	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-8**

**Lab Sample ID: 400-155434-22**

**Date Collected: 06/21/18 12:20**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-9**

**Lab Sample ID: 400-155434-23**

**Date Collected: 06/21/18 11:25**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 17:56	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 16:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-10**

**Lab Sample ID: 400-155434-24**

**Date Collected: 06/21/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 18:19	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 17:01	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-155434-25**

**Date Collected: 06/21/18 13:34**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 18:42	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 17:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-155434-26**

**Date Collected: 06/21/18 12:28**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 19:04	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 17:10	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402554	06/26/18 16:44	RRC	TAL PEN

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-155434-27**

**Date Collected: 06/21/18 10:20**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 19:50	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403822	07/06/18 16:35	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402866	06/28/18 17:17	RRC	TAL PEN

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-155434-28**

**Date Collected: 06/21/18 13:35**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 20:13	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403822	07/06/18 16:40	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402866	06/28/18 17:17	RRC	TAL PEN

**Client Sample ID: EB-2-6-21-18**

**Lab Sample ID: 400-155434-29**

**Date Collected: 06/21/18 10:45**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 20:36	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 17:24	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402866	06/28/18 17:17	RRC	TAL PEN

**Client Sample ID: FB-3-6-21-18**

**Lab Sample ID: 400-155434-30**

**Date Collected: 06/21/18 12:50**

**Matrix: Water**

**Date Received: 06/23/18 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	403836	07/09/18 21:44	JAW	TAL PEN
Total Recoverable	Prep	3005A			403475	07/05/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	403649	07/05/18 17:28	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	402866	06/28/18 17:17	RRC	TAL PEN

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-155434-31**

**Date Collected: 06/25/18 14:25**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 14:27	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

**Client Sample ID: GWC-5**

**Date Collected: 06/25/18 14:25**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-31**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	404357	07/12/18 17:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: GWC-6**

**Date Collected: 06/25/18 12:20**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-32**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 19:01	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 18:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: GWC-7**

**Date Collected: 06/25/18 10:55**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-33**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 19:46	JAW	TAL PEN
Total/NA	Analysis	300.0	DL	2	404187	07/12/18 13:51	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 18:46	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: EB-3-6-25-18**

**Date Collected: 06/25/18 10:10**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-34**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 20:09	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 18:51	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: DUP-3**

**Date Collected: 06/25/18 00:00**

**Date Received: 06/28/18 09:45**

**Lab Sample ID: 400-155434-35**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 21:18	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 18:55	DRE	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-155434-35**

**Date Collected: 06/25/18 00:00**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: GWC-32**

**Lab Sample ID: 400-155434-36**

**Date Collected: 06/26/18 13:10**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 21:40	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:00	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: GWC-33**

**Lab Sample ID: 400-155434-37**

**Date Collected: 06/26/18 11:10**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404094	07/11/18 22:03	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:04	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-155434-38**

**Date Collected: 06/26/18 12:40**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 05:17	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:31	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-155434-39**

**Date Collected: 06/26/18 14:30**

**Matrix: Water**

**Date Received: 06/28/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 05:40	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:36	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-155434-40**

**Date Collected: 06/27/18 16:10**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 06:03	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:40	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	RRC	TAL PEN

**Client Sample ID: GWC-25**

**Lab Sample ID: 400-155434-41**

**Date Collected: 06/27/18 15:35**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 06:25	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	RRC	TAL PEN

**Client Sample ID: GWC-26**

**Lab Sample ID: 400-155434-42**

**Date Collected: 06/27/18 12:15**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 03:23	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:49	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	RRC	TAL PEN

**Client Sample ID: GWC-27**

**Lab Sample ID: 400-155434-43**

**Date Collected: 06/27/18 12:35**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 06:48	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	RRC	TAL PEN

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-155434-44**

**Date Collected: 06/27/18 10:00**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 07:11	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-155434-44**

**Date Collected: 06/27/18 10:00**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	404357	07/12/18 19:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	RRC	TAL PEN

**Client Sample ID: EB-4-6-27-18**

**Lab Sample ID: 400-155434-45**

**Date Collected: 06/27/18 13:00**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 07:57	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 20:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	RRC	TAL PEN

**Client Sample ID: DUP-4**

**Lab Sample ID: 400-155434-46**

**Date Collected: 06/27/18 00:00**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 08:19	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 20:07	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403133	07/01/18 10:37	RRC	TAL PEN

**Client Sample ID: FB-4-6-27-18**

**Lab Sample ID: 400-155434-47**

**Date Collected: 06/27/18 12:00**

**Matrix: Water**

**Date Received: 06/30/18 09:27**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	404187	07/12/18 08:42	JAW	TAL PEN
Total Recoverable	Prep	3005A			404236	07/12/18 08:53	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	404357	07/12/18 20:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	403220	07/02/18 16:59	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 - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## HPLC/IC

### Analysis Batch: 403606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-1	GWA-1	Total/NA	Water	300.0	
400-155434-2	GWA-2	Total/NA	Water	300.0	
400-155434-3	GWA-4	Total/NA	Water	300.0	
400-155434-4	GWA-29	Total/NA	Water	300.0	
400-155434-5	GWC-35	Total/NA	Water	300.0	
400-155434-6	EB-1-6-19-18	Total/NA	Water	300.0	
400-155434-7	DUP-1	Total/NA	Water	300.0	
400-155434-8	FB-1-6-19-18	Total/NA	Water	300.0	
400-155434-9	GWA-28	Total/NA	Water	300.0	
400-155434-10	GWA-3	Total/NA	Water	300.0	
400-155434-11	GWC-13	Total/NA	Water	300.0	
400-155434-12	GWC-34	Total/NA	Water	300.0	
400-155434-13	GWC-11	Total/NA	Water	300.0	
400-155434-14	GWC-14	Total/NA	Water	300.0	
400-155434-15	GWC-15	Total/NA	Water	300.0	
400-155434-16	GWC-22	Total/NA	Water	300.0	
MB 400-403606/35	Method Blank	Total/NA	Water	300.0	
LCS 400-403606/36	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-403606/37	Lab Control Sample Dup	Total/NA	Water	300.0	
400-155434-2 MS	GWA-2	Total/NA	Water	300.0	
400-155434-2 MSD	GWA-2	Total/NA	Water	300.0	

### Analysis Batch: 403668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-17	GWC-23	Total/NA	Water	300.0	
400-155434-18	DUP-2	Total/NA	Water	300.0	
400-155434-19	FB-2-6-20-18	Total/NA	Water	300.0	
MB 400-403668/4	Method Blank	Total/NA	Water	300.0	
LCS 400-403668/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-403668/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-155957-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
400-155957-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 403836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-10 - DL	GWA-3	Total/NA	Water	300.0	
400-155434-14 - DL	GWC-14	Total/NA	Water	300.0	
400-155434-18 - DL	DUP-2	Total/NA	Water	300.0	
400-155434-20	GWC-16	Total/NA	Water	300.0	
400-155434-21	GWC-21	Total/NA	Water	300.0	
400-155434-22	GWC-8	Total/NA	Water	300.0	
400-155434-23	GWC-9	Total/NA	Water	300.0	
400-155434-24	GWC-10	Total/NA	Water	300.0	
400-155434-25	GWC-18	Total/NA	Water	300.0	
400-155434-26	GWC-19	Total/NA	Water	300.0	
400-155434-27	GWC-20	Total/NA	Water	300.0	
400-155434-28	GWC-30	Total/NA	Water	300.0	
400-155434-29	EB-2-6-21-18	Total/NA	Water	300.0	
400-155434-30	FB-3-6-21-18	Total/NA	Water	300.0	
MB 400-403836/4	Method Blank	Total/NA	Water	300.0	
LCS 400-403836/5	Lab Control Sample	Total/NA	Water	300.0	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## HPLC/IC (Continued)

### Analysis Batch: 403836 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-403836/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-155434-20 MS	GWC-16	Total/NA	Water	300.0	
400-155434-20 MSD	GWC-16	Total/NA	Water	300.0	

### Analysis Batch: 404094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-31	GWC-5	Total/NA	Water	300.0	
400-155434-32	GWC-6	Total/NA	Water	300.0	
400-155434-33	GWC-7	Total/NA	Water	300.0	
400-155434-34	EB-3-6-25-18	Total/NA	Water	300.0	
400-155434-35	DUP-3	Total/NA	Water	300.0	
400-155434-36	GWC-32	Total/NA	Water	300.0	
400-155434-37	GWC-33	Total/NA	Water	300.0	
MB 400-404094/43	Method Blank	Total/NA	Water	300.0	
LCS 400-404094/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-404094/45	Lab Control Sample Dup	Total/NA	Water	300.0	
400-155434-31 MS	GWC-5	Total/NA	Water	300.0	
400-155434-31 MSD	GWC-5	Total/NA	Water	300.0	

### Analysis Batch: 404187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-33 - DL	GWC-7	Total/NA	Water	300.0	
400-155434-38	GWC-12	Total/NA	Water	300.0	
400-155434-39	GWC-17	Total/NA	Water	300.0	
400-155434-40	GWC-24	Total/NA	Water	300.0	
400-155434-41	GWC-25	Total/NA	Water	300.0	
400-155434-42	GWC-26	Total/NA	Water	300.0	
400-155434-43	GWC-27	Total/NA	Water	300.0	
400-155434-44	GWC-31	Total/NA	Water	300.0	
400-155434-45	EB-4-6-27-18	Total/NA	Water	300.0	
400-155434-46	DUP-4	Total/NA	Water	300.0	
400-155434-47	FB-4-6-27-18	Total/NA	Water	300.0	
MB 400-404187/4	Method Blank	Total/NA	Water	300.0	
LCS 400-404187/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-404187/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-155434-42 MS	GWC-26	Total/NA	Water	300.0	
400-155434-42 MSD	GWC-26	Total/NA	Water	300.0	

## Metals

### Prep Batch: 402833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-1	GWA-1	Total Recoverable	Water	3005A	
400-155434-2	GWA-2	Total Recoverable	Water	3005A	
400-155434-3	GWA-4	Total Recoverable	Water	3005A	
400-155434-4	GWA-29	Total Recoverable	Water	3005A	
400-155434-5	GWC-35	Total Recoverable	Water	3005A	
400-155434-6	EB-1-6-19-18	Total Recoverable	Water	3005A	
400-155434-7	DUP-1	Total Recoverable	Water	3005A	
400-155434-8	FB-1-6-19-18	Total Recoverable	Water	3005A	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Metals (Continued)

### Prep Batch: 402833 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-9	GWA-28	Total Recoverable	Water	3005A	
400-155434-10	GWA-3	Total Recoverable	Water	3005A	
400-155434-11	GWC-13	Total Recoverable	Water	3005A	
400-155434-12	GWC-34	Total Recoverable	Water	3005A	
400-155434-13	GWC-11	Total Recoverable	Water	3005A	
400-155434-14	GWC-14	Total Recoverable	Water	3005A	
400-155434-15	GWC-15	Total Recoverable	Water	3005A	
400-155434-16	GWC-22	Total Recoverable	Water	3005A	
400-155434-17	GWC-23	Total Recoverable	Water	3005A	
400-155434-18	DUP-2	Total Recoverable	Water	3005A	
400-155434-19	FB-2-6-20-18	Total Recoverable	Water	3005A	
400-155434-20	GWC-16	Total Recoverable	Water	3005A	
MB 400-402833/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-402833/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-155434-2 MS	GWA-2	Total Recoverable	Water	3005A	
400-155434-2 MSD	GWA-2	Total Recoverable	Water	3005A	

### Analysis Batch: 403232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-1	GWA-1	Total Recoverable	Water	6020	402833
400-155434-2	GWA-2	Total Recoverable	Water	6020	402833
400-155434-3	GWA-4	Total Recoverable	Water	6020	402833
400-155434-4	GWA-29	Total Recoverable	Water	6020	402833
400-155434-5	GWC-35	Total Recoverable	Water	6020	402833
400-155434-6	EB-1-6-19-18	Total Recoverable	Water	6020	402833
400-155434-7	DUP-1	Total Recoverable	Water	6020	402833
400-155434-8	FB-1-6-19-18	Total Recoverable	Water	6020	402833
400-155434-9	GWA-28	Total Recoverable	Water	6020	402833
400-155434-10	GWA-3	Total Recoverable	Water	6020	402833
400-155434-11	GWC-13	Total Recoverable	Water	6020	402833
400-155434-12	GWC-34	Total Recoverable	Water	6020	402833
400-155434-13	GWC-11	Total Recoverable	Water	6020	402833
400-155434-14	GWC-14	Total Recoverable	Water	6020	402833
400-155434-15	GWC-15	Total Recoverable	Water	6020	402833
400-155434-16	GWC-22	Total Recoverable	Water	6020	402833
400-155434-17	GWC-23	Total Recoverable	Water	6020	402833
400-155434-18	DUP-2	Total Recoverable	Water	6020	402833
400-155434-19	FB-2-6-20-18	Total Recoverable	Water	6020	402833
400-155434-20	GWC-16	Total Recoverable	Water	6020	402833
MB 400-402833/1-A ^5	Method Blank	Total Recoverable	Water	6020	402833
LCS 400-402833/2-A	Lab Control Sample	Total Recoverable	Water	6020	402833
400-155434-2 MS	GWA-2	Total Recoverable	Water	6020	402833
400-155434-2 MSD	GWA-2	Total Recoverable	Water	6020	402833

### Prep Batch: 403475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-21	GWC-21	Total Recoverable	Water	3005A	
400-155434-22	GWC-8	Total Recoverable	Water	3005A	
400-155434-23	GWC-9	Total Recoverable	Water	3005A	
400-155434-24	GWC-10	Total Recoverable	Water	3005A	
400-155434-25	GWC-18	Total Recoverable	Water	3005A	

TestAmerica Pensacola



# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Metals (Continued)

### Prep Batch: 403475 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-26	GWC-19	Total Recoverable	Water	3005A	
400-155434-27	GWC-20	Total Recoverable	Water	3005A	
400-155434-28	GWC-30	Total Recoverable	Water	3005A	
400-155434-29	EB-2-6-21-18	Total Recoverable	Water	3005A	
400-155434-30	FB-3-6-21-18	Total Recoverable	Water	3005A	
MB 400-403475/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-403475/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-155434-22 MS	GWC-8	Total Recoverable	Water	3005A	
400-155434-22 MSD	GWC-8	Total Recoverable	Water	3005A	

### Analysis Batch: 403649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-21	GWC-21	Total Recoverable	Water	6020	403475
400-155434-22	GWC-8	Total Recoverable	Water	6020	403475
400-155434-23	GWC-9	Total Recoverable	Water	6020	403475
400-155434-24	GWC-10	Total Recoverable	Water	6020	403475
400-155434-25	GWC-18	Total Recoverable	Water	6020	403475
400-155434-26	GWC-19	Total Recoverable	Water	6020	403475
400-155434-29	EB-2-6-21-18	Total Recoverable	Water	6020	403475
400-155434-30	FB-3-6-21-18	Total Recoverable	Water	6020	403475
MB 400-403475/1-A ^5	Method Blank	Total Recoverable	Water	6020	403475
LCS 400-403475/2-A	Lab Control Sample	Total Recoverable	Water	6020	403475
400-155434-22 MS	GWC-8	Total Recoverable	Water	6020	403475
400-155434-22 MSD	GWC-8	Total Recoverable	Water	6020	403475

### Analysis Batch: 403822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-27	GWC-20	Total Recoverable	Water	6020	403475
400-155434-28	GWC-30	Total Recoverable	Water	6020	403475

### Prep Batch: 404236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-31	GWC-5	Total Recoverable	Water	3005A	
400-155434-32	GWC-6	Total Recoverable	Water	3005A	
400-155434-33	GWC-7	Total Recoverable	Water	3005A	
400-155434-34	EB-3-6-25-18	Total Recoverable	Water	3005A	
400-155434-35	DUP-3	Total Recoverable	Water	3005A	
400-155434-36	GWC-32	Total Recoverable	Water	3005A	
400-155434-37	GWC-33	Total Recoverable	Water	3005A	
400-155434-38	GWC-12	Total Recoverable	Water	3005A	
400-155434-39	GWC-17	Total Recoverable	Water	3005A	
400-155434-40	GWC-24	Total Recoverable	Water	3005A	
400-155434-41	GWC-25	Total Recoverable	Water	3005A	
400-155434-42	GWC-26	Total Recoverable	Water	3005A	
400-155434-43	GWC-27	Total Recoverable	Water	3005A	
400-155434-44	GWC-31	Total Recoverable	Water	3005A	
400-155434-45	EB-4-6-27-18	Total Recoverable	Water	3005A	
400-155434-46	DUP-4	Total Recoverable	Water	3005A	
400-155434-47	FB-4-6-27-18	Total Recoverable	Water	3005A	
MB 400-404236/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-404236/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

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# QC Association Summary

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Metals (Continued)

### Prep Batch: 404236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-31 MS	GWC-5	Total Recoverable	Water	3005A	
400-155434-31 MSD	GWC-5	Total Recoverable	Water	3005A	

### Analysis Batch: 404357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-31	GWC-5	Total Recoverable	Water	6020	404236
400-155434-32	GWC-6	Total Recoverable	Water	6020	404236
400-155434-33	GWC-7	Total Recoverable	Water	6020	404236
400-155434-34	EB-3-6-25-18	Total Recoverable	Water	6020	404236
400-155434-35	DUP-3	Total Recoverable	Water	6020	404236
400-155434-36	GWC-32	Total Recoverable	Water	6020	404236
400-155434-37	GWC-33	Total Recoverable	Water	6020	404236
400-155434-38	GWC-12	Total Recoverable	Water	6020	404236
400-155434-39	GWC-17	Total Recoverable	Water	6020	404236
400-155434-40	GWC-24	Total Recoverable	Water	6020	404236
400-155434-41	GWC-25	Total Recoverable	Water	6020	404236
400-155434-42	GWC-26	Total Recoverable	Water	6020	404236
400-155434-43	GWC-27	Total Recoverable	Water	6020	404236
400-155434-44	GWC-31	Total Recoverable	Water	6020	404236
400-155434-45	EB-4-6-27-18	Total Recoverable	Water	6020	404236
400-155434-46	DUP-4	Total Recoverable	Water	6020	404236
400-155434-47	FB-4-6-27-18	Total Recoverable	Water	6020	404236
MB 400-404236/1-A ^5	Method Blank	Total Recoverable	Water	6020	404236
LCS 400-404236/2-A	Lab Control Sample	Total Recoverable	Water	6020	404236
400-155434-31 MS	GWC-5	Total Recoverable	Water	6020	404236
400-155434-31 MSD	GWC-5	Total Recoverable	Water	6020	404236

## General Chemistry

### Analysis Batch: 402402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-7	DUP-1	Total/NA	Water	SM 2540C	
MB 400-402402/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-402402/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-155356-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 402552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-1	GWA-1	Total/NA	Water	SM 2540C	
400-155434-2	GWA-2	Total/NA	Water	SM 2540C	
400-155434-3	GWA-4	Total/NA	Water	SM 2540C	
400-155434-4	GWA-29	Total/NA	Water	SM 2540C	
400-155434-5	GWC-35	Total/NA	Water	SM 2540C	
400-155434-6	EB-1-6-19-18	Total/NA	Water	SM 2540C	
400-155434-8	FB-1-6-19-18	Total/NA	Water	SM 2540C	
400-155434-9	GWA-28	Total/NA	Water	SM 2540C	
400-155434-18	DUP-2	Total/NA	Water	SM 2540C	
MB 400-402552/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-402552/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-155434-1 DU	GWA-1	Total/NA	Water	SM 2540C	

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# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## General Chemistry (Continued)

### Analysis Batch: 402554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-10	GWA-3	Total/NA	Water	SM 2540C	
400-155434-11	GWC-13	Total/NA	Water	SM 2540C	
400-155434-12	GWC-34	Total/NA	Water	SM 2540C	
400-155434-13	GWC-11	Total/NA	Water	SM 2540C	
400-155434-14	GWC-14	Total/NA	Water	SM 2540C	
400-155434-15	GWC-15	Total/NA	Water	SM 2540C	
400-155434-16	GWC-22	Total/NA	Water	SM 2540C	
400-155434-17	GWC-23	Total/NA	Water	SM 2540C	
400-155434-19	FB-2-6-20-18	Total/NA	Water	SM 2540C	
400-155434-20	GWC-16	Total/NA	Water	SM 2540C	
400-155434-21	GWC-21	Total/NA	Water	SM 2540C	
400-155434-22	GWC-8	Total/NA	Water	SM 2540C	
400-155434-23	GWC-9	Total/NA	Water	SM 2540C	
400-155434-24	GWC-10	Total/NA	Water	SM 2540C	
400-155434-25	GWC-18	Total/NA	Water	SM 2540C	
400-155434-26	GWC-19	Total/NA	Water	SM 2540C	
MB 400-402554/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-402554/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-155434-20 DU	GWC-16	Total/NA	Water	SM 2540C	

### Analysis Batch: 402866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-27	GWC-20	Total/NA	Water	SM 2540C	
400-155434-28	GWC-30	Total/NA	Water	SM 2540C	
400-155434-29	EB-2-6-21-18	Total/NA	Water	SM 2540C	
400-155434-30	FB-3-6-21-18	Total/NA	Water	SM 2540C	
MB 400-402866/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-402866/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-155538-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 403133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-31	GWC-5	Total/NA	Water	SM 2540C	
400-155434-32	GWC-6	Total/NA	Water	SM 2540C	
400-155434-33	GWC-7	Total/NA	Water	SM 2540C	
400-155434-34	EB-3-6-25-18	Total/NA	Water	SM 2540C	
400-155434-35	DUP-3	Total/NA	Water	SM 2540C	
400-155434-36	GWC-32	Total/NA	Water	SM 2540C	
400-155434-37	GWC-33	Total/NA	Water	SM 2540C	
400-155434-38	GWC-12	Total/NA	Water	SM 2540C	
400-155434-39	GWC-17	Total/NA	Water	SM 2540C	
400-155434-46	DUP-4	Total/NA	Water	SM 2540C	
MB 400-403133/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-403133/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-155434-31 DU	GWC-5	Total/NA	Water	SM 2540C	
400-155434-36 DU	GWC-32	Total/NA	Water	SM 2540C	

### Analysis Batch: 403220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-40	GWC-24	Total/NA	Water	SM 2540C	
400-155434-41	GWC-25	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## General Chemistry (Continued)

### Analysis Batch: 403220 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-155434-42	GWC-26	Total/NA	Water	SM 2540C	
400-155434-43	GWC-27	Total/NA	Water	SM 2540C	
400-155434-44	GWC-31	Total/NA	Water	SM 2540C	
400-155434-45	EB-4-6-27-18	Total/NA	Water	SM 2540C	
400-155434-47	FB-4-6-27-18	Total/NA	Water	SM 2540C	
MB 400-403220/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-403220/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-155434-44 DU	GWC-31	Total/NA	Water	SM 2540C	

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-403606/35**  
**Matrix: Water**  
**Analysis Batch: 403606**

**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			07/06/18 02:39	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 02:39	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 02:39	1

**Lab Sample ID: LCS 400-403606/36**  
**Matrix: Water**  
**Analysis Batch: 403606**

**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	9.41		mg/L		94	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 400-403606/37**  
**Matrix: Water**  
**Analysis Batch: 403606**

**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	9.40		mg/L		94	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.1		mg/L		101	90 - 110	0	15

**Lab Sample ID: 400-155434-2 MS**  
**Matrix: Water**  
**Analysis Batch: 403606**

**Client Sample ID: GWA-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.6		10.0	13.1		mg/L		95	80 - 120
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120
Sulfate	1.0		10.0	11.4		mg/L		104	80 - 120

**Lab Sample ID: 400-155434-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 403606**

**Client Sample ID: GWA-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.6		10.0	13.1		mg/L		95	80 - 120	0	20
Fluoride	<0.082		10.0	10.5		mg/L		105	80 - 120	1	20
Sulfate	1.0		10.0	11.4		mg/L		104	80 - 120	0	20

**Lab Sample ID: MB 400-403668/4**  
**Matrix: Water**  
**Analysis Batch: 403668**

**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			07/06/18 16:56	1
Fluoride	<0.082		0.20	0.082	mg/L			07/06/18 16:56	1
Sulfate	<0.70		1.0	0.70	mg/L			07/06/18 16:56	1

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-403668/5**  
**Matrix: Water**  
**Analysis Batch: 403668**

**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	9.35		mg/L		93	90 - 110
Fluoride	10.0	9.85		mg/L		98	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

**Lab Sample ID: LCSD 400-403668/6**  
**Matrix: Water**  
**Analysis Batch: 403668**

**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	9.15		mg/L		92	90 - 110	2	15
Fluoride	10.0	9.92		mg/L		99	90 - 110	1	15
Sulfate	10.0	9.48		mg/L		95	90 - 110	7	15

**Lab Sample ID: 400-155957-D-1 MS**  
**Matrix: Water**  
**Analysis Batch: 403668**

**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	23		10.0	32.7		mg/L		93	80 - 120
Fluoride	0.34		10.0	10.4		mg/L		100	80 - 120
Sulfate	13		10.0	24.0		mg/L		108	80 - 120

**Lab Sample ID: 400-155957-D-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 403668**

**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	23		10.0	32.8		mg/L		94	80 - 120	0	20
Fluoride	0.34		10.0	10.3		mg/L		99	80 - 120	1	20
Sulfate	13		10.0	24.0		mg/L		108	80 - 120	0	20

**Lab Sample ID: MB 400-403836/4**  
**Matrix: Water**  
**Analysis Batch: 403836**

**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			07/09/18 12:36	1
Fluoride	<0.082		0.20	0.082	mg/L			07/09/18 12:36	1
Sulfate	<0.70		1.0	0.70	mg/L			07/09/18 12:36	1

**Lab Sample ID: LCS 400-403836/5**  
**Matrix: Water**  
**Analysis Batch: 403836**

**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	9.36		mg/L		94	90 - 110
Fluoride	10.0	10.1		mg/L		101	90 - 110
Sulfate	10.0	9.97		mg/L		100	90 - 110

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-403836/6**  
**Matrix: Water**  
**Analysis Batch: 403836**

**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	9.35		mg/L		93	90 - 110	0	15
Fluoride	10.0	10.2		mg/L		102	90 - 110	2	15
Sulfate	10.0	9.95		mg/L		100	90 - 110	0	15

**Lab Sample ID: 400-155434-20 MS**  
**Matrix: Water**  
**Analysis Batch: 403836**

**Client Sample ID: GWC-16**  
**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	10.7		mg/L		93	80 - 120
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120
Sulfate	<0.70		10.0	10.5		mg/L		105	80 - 120

**Lab Sample ID: 400-155434-20 MSD**  
**Matrix: Water**  
**Analysis Batch: 403836**

**Client Sample ID: GWC-16**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.3		10.0	10.7		mg/L		93	80 - 120	0	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	1	20
Sulfate	<0.70		10.0	10.4		mg/L		104	80 - 120	1	20

**Lab Sample ID: MB 400-404094/43**  
**Matrix: Water**  
**Analysis Batch: 404094**

**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			07/11/18 12:10	1
Fluoride	<0.082		0.20	0.082	mg/L			07/11/18 12:10	1
Sulfate	<0.70		1.0	0.70	mg/L			07/11/18 12:10	1

**Lab Sample ID: LCS 400-404094/44**  
**Matrix: Water**  
**Analysis Batch: 404094**

**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	9.57		mg/L		96	90 - 110
Fluoride	10.0	10.4		mg/L		104	90 - 110
Sulfate	10.0	9.83		mg/L		98	90 - 110

**Lab Sample ID: LCSD 400-404094/45**  
**Matrix: Water**  
**Analysis Batch: 404094**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.59		mg/L		96	90 - 110	0	15
Fluoride	10.0	10.3		mg/L		103	90 - 110	1	15
Sulfate	10.0	9.98		mg/L		100	90 - 110	1	15

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 400-155434-31 MS**

**Matrix: Water**  
**Analysis Batch: 404094**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12		10.0	21.4		mg/L		93	80 - 120
Fluoride	0.097	J	10.0	10.5		mg/L		104	80 - 120
Sulfate	30		10.0	39.5		mg/L		98	80 - 120

**Lab Sample ID: 400-155434-31 MSD**

**Matrix: Water**  
**Analysis Batch: 404094**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		10.0	21.4		mg/L		94	80 - 120	0	20
Fluoride	0.097	J	10.0	10.5		mg/L		104	80 - 120	1	20
Sulfate	30		10.0	39.8		mg/L		101	80 - 120	1	20

**Lab Sample ID: MB 400-404187/4**

**Matrix: Water**  
**Analysis Batch: 404187**

**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			07/12/18 00:43	1
Fluoride	<0.082		0.20	0.082	mg/L			07/12/18 00:43	1
Sulfate	<0.70		1.0	0.70	mg/L			07/12/18 00:43	1

**Lab Sample ID: LCS 400-404187/5**

**Matrix: Water**  
**Analysis Batch: 404187**

**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	9.59		mg/L		96	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	9.86		mg/L		99	90 - 110

**Lab Sample ID: LCSD 400-404187/6**

**Matrix: Water**  
**Analysis Batch: 404187**

**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	9.58		mg/L		96	90 - 110	0	15
Fluoride	10.0	10.4		mg/L		104	90 - 110	0	15
Sulfate	10.0	9.90		mg/L		99	90 - 110	0	15

**Lab Sample ID: 400-155434-42 MS**

**Matrix: Water**  
**Analysis Batch: 404187**

**Client Sample ID: GWC-26**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.8		10.0	12.4		mg/L		96	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	<0.70		10.0	10.2		mg/L		102	80 - 120

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 400-155434-42 MSD**  
**Matrix: Water**  
**Analysis Batch: 404187**

**Client Sample ID: GWC-26**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.8		10.0	12.4		mg/L		96	80 - 120	0	20
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120	0	20
Sulfate	<0.70		10.0	10.3		mg/L		103	80 - 120	1	20

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

**Lab Sample ID: MB 400-402833/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 403232**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 402833**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/28/18 09:33	06/29/18 19:25	5
Calcium	<0.13		0.25	0.13	mg/L		06/28/18 09:33	06/29/18 19:25	5

**Lab Sample ID: LCS 400-402833/2-A**  
**Matrix: Water**  
**Analysis Batch: 403232**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 402833**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.104		mg/L		104	80 - 120
Calcium	5.00	5.02		mg/L		100	80 - 120

**Lab Sample ID: 400-155434-2 MS**  
**Matrix: Water**  
**Analysis Batch: 403232**

**Client Sample ID: GWA-2**  
**Prep Type: Total Recoverable**  
**Prep Batch: 402833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021		0.100	0.111		mg/L		111	75 - 125
Calcium	3.4		5.00	8.59		mg/L		105	75 - 125

**Lab Sample ID: 400-155434-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 403232**

**Client Sample ID: GWA-2**  
**Prep Type: Total Recoverable**  
**Prep Batch: 402833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.021		0.100	0.110		mg/L		110	75 - 125	1	20
Calcium	3.4		5.00	8.25		mg/L		98	75 - 125	4	20

**Lab Sample ID: MB 400-403475/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 403649**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 403475**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		07/05/18 09:32	07/05/18 15:53	5
Calcium	<0.13		0.25	0.13	mg/L		07/05/18 09:32	07/05/18 15:53	5

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

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

**Lab Sample ID: LCS 400-403475/2-A**  
**Matrix: Water**  
**Analysis Batch: 403649**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 403475**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	0.100	0.110		mg/L		110	80 - 120
Calcium	5.00	4.82		mg/L		96	80 - 120

**Lab Sample ID: 400-155434-22 MS**  
**Matrix: Water**  
**Analysis Batch: 403649**

**Client Sample ID: GWC-8**  
**Prep Type: Total Recoverable**  
**Prep Batch: 403475**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<0.021	F1	0.100	0.130	F1	mg/L		130	75 - 125
Calcium	29		5.00	32.6	4	mg/L		82	75 - 125

**Lab Sample ID: 400-155434-22 MSD**  
**Matrix: Water**  
**Analysis Batch: 403649**

**Client Sample ID: GWC-8**  
**Prep Type: Total Recoverable**  
**Prep Batch: 403475**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	<0.021	F1	0.100	0.132	F1	mg/L		132	75 - 125	1	20
Calcium	29		5.00	33.7	4	mg/L		102	75 - 125	3	20

**Lab Sample ID: MB 400-404236/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 404357**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 404236**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		07/12/18 08:53	07/12/18 17:43	5
Calcium	<0.13		0.25	0.13	mg/L		07/12/18 08:53	07/12/18 17:43	5

**Lab Sample ID: LCS 400-404236/2-A**  
**Matrix: Water**  
**Analysis Batch: 404357**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 404236**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	0.100	0.0968		mg/L		97	80 - 120
Calcium	5.00	4.82		mg/L		96	80 - 120

**Lab Sample ID: 400-155434-31 MS**  
**Matrix: Water**  
**Analysis Batch: 404357**

**Client Sample ID: GWC-5**  
**Prep Type: Total Recoverable**  
**Prep Batch: 404236**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<0.021		0.100	0.0944		mg/L		94	75 - 125
Calcium	35		5.00	39.9	4	mg/L		108	75 - 125

**Lab Sample ID: 400-155434-31 MSD**  
**Matrix: Water**  
**Analysis Batch: 404357**

**Client Sample ID: GWC-5**  
**Prep Type: Total Recoverable**  
**Prep Batch: 404236**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	<0.021		0.100	0.0913		mg/L		91	75 - 125	3	20

TestAmerica Pensacola



# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

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

**Lab Sample ID: 400-155434-31 MSD**  
**Matrix: Water**  
**Analysis Batch: 404357**

**Client Sample ID: GWC-5**  
**Prep Type: Total Recoverable**  
**Prep Batch: 404236**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	35		5.00	39.3	4	mg/L		95	75 - 125	2	20

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

**Lab Sample ID: MB 400-402402/1**  
**Matrix: Water**  
**Analysis Batch: 402402**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/25/18 15:06	1

**Lab Sample ID: LCS 400-402402/2**  
**Matrix: Water**  
**Analysis Batch: 402402**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	246		mg/L		84	78 - 122

**Lab Sample ID: 400-155356-A-4 DU**  
**Matrix: Water**  
**Analysis Batch: 402402**

**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	300		296		mg/L		1	5

**Lab Sample ID: MB 400-402552/1**  
**Matrix: Water**  
**Analysis Batch: 402552**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/18 16:03	1

**Lab Sample ID: LCS 400-402552/2**  
**Matrix: Water**  
**Analysis Batch: 402552**

**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	252		mg/L		86	78 - 122

**Lab Sample ID: 400-155434-1 DU**  
**Matrix: Water**  
**Analysis Batch: 402552**

**Client Sample ID: GWA-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	16		16.0		mg/L		0	5

# QC Sample Results

Client: Southern Company  
Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
SDG: App. III

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

**Lab Sample ID: MB 400-402554/1**  
**Matrix: Water**  
**Analysis Batch: 402554**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/26/18 16:44	1

**Lab Sample ID: LCS 400-402554/2**  
**Matrix: Water**  
**Analysis Batch: 402554**

**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: 400-155434-20 DU**  
**Matrix: Water**  
**Analysis Batch: 402554**

**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	84		86.0	F3	mg/L		10	5

**Lab Sample ID: MB 400-402866/1**  
**Matrix: Water**  
**Analysis Batch: 402866**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/28/18 17:17	1

**Lab Sample ID: LCS 400-402866/2**  
**Matrix: Water**  
**Analysis Batch: 402866**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	246		mg/L		84	78 - 122

**Lab Sample ID: 400-155538-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 402866**

**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	460		394	F3	mg/L		15	5

**Lab Sample ID: MB 400-403133/1**  
**Matrix: Water**  
**Analysis Batch: 403133**

**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			07/01/18 10:37	1

**Lab Sample ID: LCS 400-403133/2**  
**Matrix: Water**  
**Analysis Batch: 403133**

**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

TestAmerica Pensacola

# QC Sample Results

Client: Southern Company  
 Project/Site: CCR - Plant Wansley - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

**Lab Sample ID: 400-155434-31 DU**  
**Matrix: Water**  
**Analysis Batch: 403133**

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	200		198		mg/L		0	5

**Lab Sample ID: 400-155434-36 DU**  
**Matrix: Water**  
**Analysis Batch: 403133**

**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	66		66.0		mg/L		0	5

**Lab Sample ID: MB 400-403220/1**  
**Matrix: Water**  
**Analysis Batch: 403220**

**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			07/02/18 16:59	1

**Lab Sample ID: LCS 400-403220/2**  
**Matrix: Water**  
**Analysis Batch: 403220**

**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: 400-155434-44 DU**  
**Matrix: Water**  
**Analysis Batch: 403220**

**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	92		92.0		mg/L		0	5

**Chain of Custody Record**

<b>Client Information</b>		Lab P/N: Whitmire, Cheyenne R		Carrier Tracking No(s): ACC to TA ATL		COC No:	
Client Contact: Joju Abraham		Phone: 720-594-5998		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of	
Company: Southern Company		Due Date Requested:		<b>Analysis Requested</b>		Job #: 15937-1	
Address: PO BOX 2841 GSCB		TAT Requested (days):		 400-155434 COC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - H2SO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Birmingham		PO #: SCS10347666		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsH3O2 P - H2O2AS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecathylate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: AL, 35291		WO #: 40007709		Perform MS/MSO (Yes or No)		Total Number of Containers	
Phone:		Project #: 40007709		Metals App. III plus state permit (EPA 8020/7470) - (B, Ca)		Special Instructions/Note: APP III	
Email: JAbraham@southernco.com		SSOW#:		<input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input type="checkbox"/> Metals App. III plus state permit (EPA 8020/7470) - (B, Ca) <input type="checkbox"/> Perform MS/MSO (Yes or No) <input type="checkbox"/> C, F, SO, & TDS (EPA 300.0 & SM 2540C)			
Project Name: CCR - Plant Wansley - Landfill		Site: Georgia					
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, B=soil, G=grab, etc.)	Preservation Code:		
6WA-1	6-14-18	1326	G	Water	N		2
6WA-2	6-19-18	1405	G	Water	N		2
6WA-4	6-19-18	1400	G	Water	N		2
6WA-29	6-19-18	1150	G	Water	N		2
6WC-35	6-19-18	1530	G	Water	N		2
FB-16-19-18	6-19-18	1600	G	Water	N		2
Dup-1	6-19-18		G	Water	N		2
FB-1-6-19-18	6-19-18	1355	G	Water	N		2
				Water			
				Water			
				Water			
<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 checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological <b>Deliverable Requested: I, II, III, IV, Other (specify)</b>							
<b>Empty Kit Requisitioned by:</b> Requisitioned by: [Signature] Date: 6-20-18 Requisitioned by: [Signature] Date: 6/26/18 Requisitioned by: [Signature] Date: 6/26/18							
<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>Special Instructions/QC Requirements:</b>							
<b>Method of Shipment:</b> Requisitioned by: [Signature] Date/Time: 6/20/18 10:00 Requisitioned by: [Signature] Date/Time: 6/26/18 09:58 Requisitioned by: [Signature] Date/Time:							
<b>Cooler Temperature(s) °C and Other Remarks:</b> A/C - 18.8							












Chain of Custody Record

<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 - Landfill Site: Georgia		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Acc to TA-ATL COC No: 40F Page: 4 of 4 Job #:	
Due Date Requested: TAT Requested (days): PO #: SCS10347856 WO #: Project #: 40007709 SSOW#:		<b>Analysis Requested</b>  400-155434 COC	
<b>Sample Identification</b> Sample ID: GWC-5 GWC-6 GWC-7 EB-3--6-25-18 DUP-3 GWC-32 GWC-33 GWC-12 GWC-17		Matrix (W=water, S=solid, O=waste/oil, G=grab, I=insol, A=As) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code: Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) Metals App. III plus state permit (EPA 5020/470) - (B, Ca) CL, F, SO <sub>4</sub> & TDS (EPA 300.0 & SM 2540C)	
<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 checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Total Number of Containers: 2 Special Instructions/Note: APP III	
Deliverable Requested: I, II, III, IV, Other (specify) Empty Kit Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Method of Shipment: Date/Time: 6/27/18 11:00 Date/Time: 6/27/18 11:00 Date/Time: 6/28/18 09:45	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.		Cooler Temperature(s) °C and Other Remarks:	



<b>Client Information</b> Client Contact: Joju Abraham Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 770-584-5898 Email: JAbraham@southernco.com Project Name: CCR - Plant Wansley - Landfill Site: Georgia		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): ACC 18 TA-ATL	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007709 SSO#:		COC No: Page: 5 of 5 Job #:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>[Signature]</i> Date: 6-28-18 / 1440 Company: ACC		Relinquished by: <i>[Signature]</i> Date: 6-28-18 / 1440 Company: TA	
Relinquished by: <i>[Signature]</i> Date: 6-28-18 / 1530 Company:		Relinquished by: <i>[Signature]</i> Date: 6/30/18 927 Company: TA-PEN	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Δ		Cooler Temperature(s) °C and Other Remarks: 4.40C 1R-0	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code:	Matrix (W=water, S=solid, O=organic, A=air)	Field Filtered Sample (Yes or No)	Metals App. III plus state permit (EPA 6020/4/D) - (B, Ca)	CI, F, SO, & TDS (EPA 300.0 & SM 2540C)	Total Number of Containers	Special Instructions/Note:
6WC-24	6-27-18	1610	G		Water	N	N	I	2	APP III
6WC-25	6-27-18	1535	G		Water	N	N	I	2	
6WC-26	6-27-18	1215	G		Water	N	N	I	2	
6WC-27	6-27-18	1235	G		Water	N	N	I	2	
6WC-31	6-27-18	1000	G		Water	N	N	I	2	
EB-4-6-27-18	6-27-18	1300	G		Water	N	N	I	2	
DUP-4	6-27-18	—	G		Water	N	N	I	2	
FB-4-6-27-18	6-27-18	1200	G		Water	N	N	I	2	
					Water					
					Water					
					Water					





# Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-155434-1

SDG Number: App. III

**Login Number: 155434**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C IR-8, 3.4°C IR-7, 5.4°C, 1.2°C IR8, 4.4°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 - Landfill

TestAmerica Job ID: 400-155434-1  
 SDG: App. III

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18 *
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-14	09-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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

Product Name: Low-Flow System

Date: 2018-06-19 13:29:48

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.90 ft  
Screen Length 10 ft  
Depth to Water 19.29 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6087078 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 43 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:06:18	1500.01	21.19	5.21	19.42	5.71	22.30	6.12	151.15
Last 5	13:11:18	1800.01	20.92	5.23	19.12	5.52	22.60	6.13	148.65
Last 5	13:16:18	2100.00	21.03	5.24	19.03	4.98	22.70	6.11	145.77
Last 5	13:21:19	2401.00	21.20	5.24	19.10	4.66	22.80	6.10	141.51
Last 5	13:26:19	2701.00	21.22	5.27	19.12	4.56	22.90	6.08	140.07
Variance 0			0.12	0.01	-0.09			-0.02	-2.89
Variance 1			0.16	0.00	0.06			-0.01	-4.25
Variance 2			0.02	0.02	0.03			-0.02	-1.44

Notes

Collected at 13:26. Sunny 90's. FB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-19 14:06:49

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type QED Sample Pro  
Tubing Type poly  
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 60.10 ft  
Screen Length 10 ft  
Depth to Water 42.08 ft

Pumping Information:

Final Pumping Rate 245 mL/min  
Total System Volume 0.6801225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 in  
Total Volume Pumped 39 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%	+/- 100		+/- 0.5	+/- 100
Last 5	13:45:37	10827.66	19.46	5.83	56.58	17.00	42.20	8.46	427.84
Last 5	13:50:37	11127.66	19.55	5.83	56.67	16.40	42.20	8.55	419.90
Last 5	13:55:37	11427.66	19.59	5.83	57.08	14.50	42.20	8.46	412.61
Last 5	14:00:36	11727.53	19.99	5.81	57.56	12.20	42.20	8.49	408.16
Last 5	14:05:36	12027.53	19.97	5.84	57.87	9.40	42.20	8.42	403.85
Variance 0			0.04	0.00	0.41			-0.09	-7.28
Variance 1			0.40	-0.02	0.47			0.03	-4.45
Variance 2			-0.02	0.03	0.32			-0.07	-4.31

Notes

Sampled at 1405. Partly cloudy 91F.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-19 15:51:16

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 33 ft

Pump placement from TOC 30.5 ft

Well Information:

Well ID GWA-3  
Well diameter 2 in  
Well Total Depth 31.20 ft  
Screen Length 10 ft  
Depth to Water 23.62 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.537293 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 75 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	15:25:45	2700.02	19.99	5.83	289.17	0.91	28.10	6.19	72.49
Last 5	15:30:45	3000.02	20.10	5.83	289.21	0.72	28.50	6.05	73.39
Last 5	15:35:45	3300.28	19.97	5.90	291.84	0.53	28.90	5.89	74.26
Last 5	15:40:45	3600.28	20.30	6.03	345.60	0.44	29.40	5.41	76.21
Last 5	15:45:46	3900.29	21.67	6.09	380.19	--	--	6.18	78.53
Variance 0			-0.14	0.07	2.63			-0.16	0.87
Variance 1			0.33	0.13	53.76			-0.48	1.95
Variance 2			1.37	0.06	34.59			0.78	2.32

Notes

Well purged dry. Allowed recharge.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 10:01:03

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 31 ft

Pump placement from TOC 29.7 ft

Well Information:

Well ID GWA-3  
Well diameter 2 in  
Well Total Depth 31.20 ft  
Screen Length 10 ft  
Depth to Water 28.92 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.2283661 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	09:58:35	300.40	22.97	6.28	402.37	2.27	29.40	6.72	97.00
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Collected at 09:30. Sunny 80s. Well purged dry previous day. Collected next day after recharge.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-19 14:09:45

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladderpump  
Tubing Type Poly  
Tubing Diameter .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 23.13 ft

Pumping Information:

Final Pumping Rate 175 mL/min  
Total System Volume 0.5685369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 12.2 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%	+/- 50
Last 5	13:34:32	2400.48	21.54	6.19	285.91	5.51	23.30	0.14	32.56
Last 5	13:39:32	2700.48	21.01	6.21	276.62	4.94	23.30	0.15	31.99
Last 5	13:44:32	3000.48	20.52	6.21	270.98	4.73	23.30	0.15	31.26
Last 5	13:49:32	3300.48	20.56	6.21	259.43	5.11	23.30	0.16	30.77
Last 5	13:54:33	3601.48	20.50	6.20	262.80	4.58	23.30	0.17	30.37
Variance 0			-0.49	0.00	-5.64			0.01	-0.74
Variance 1			0.04	0.00	-11.54			0.01	-0.49
Variance 2			-0.06	-0.01	3.37			0.00	-0.40

Notes

Collected at 14:00

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-19 16:10:53

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 45 ft

Pump placement from TOC 41 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.80 ft  
Screen Length 10 ft  
Depth to Water 24.65 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 0.590854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 51 in  
Total Volume Pumped 6.15 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:50:03	3002.00	22.92	5.99	55.45	1.11	28.50	6.18	105.18
Last 5	15:55:03	3302.00	23.24	5.98	55.12	1.42	28.60	6.13	105.59
Last 5	16:00:03	3601.99	23.34	5.97	54.31	1.26	28.70	6.14	106.31
Last 5	16:05:03	3901.98	23.01	5.96	53.83	1.18	28.80	6.21	106.19
Last 5	16:10:04	4202.98	22.99	5.96	53.70	1.81	28.90	6.27	105.93
Variance 0			0.10	-0.01	-0.81			0.00	0.72
Variance 1			-0.33	-0.00	-0.48			0.08	-0.12
Variance 2			-0.03	-0.00	-0.12			0.06	-0.25

Notes

Collected at 16:10. Sunny 90's.

Grab Samples



Product Name: Low-Flow System

Date: 2018-06-19 11:49:25

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladderpump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 57 ft

Pump placement from TOC 52 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.10 ft  
Screen Length 10 ft  
Depth to Water 43.22 ft

Pumping Information:

Final Pumping Rate 280 mL/min  
Total System Volume 0.6444151 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	11:25:20	2099.94	19.14	5.76	86.91	6.13	43.30	6.16	49.85
Last 5	11:30:20	2399.94	19.07	5.78	87.14	5.53	43.30	6.17	48.63
Last 5	11:35:20	2699.93	19.16	5.72	86.61	5.12	43.30	6.23	51.44
Last 5	11:40:20	2999.93	19.17	5.76	86.48	4.89	43.30	6.30	48.81
Last 5	11:45:20	3299.93	19.08	5.77	86.21	4.47	43.30	6.31	48.45
Variance 0			0.09	-0.06	-0.53			0.06	2.81
Variance 1			0.01	0.05	-0.13			0.07	-2.63
Variance 2			-0.10	0.01	-0.26			0.01	-0.36

Notes

Collected at 11:50. Sunny 90s. DUP 1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-25 14:22:49

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 36 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 17.80 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2506832 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 22 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	13:59:27	3001.33	23.61	6.46	350.31	6.89	19.70	0.62	50.76
Last 5	14:04:27	3301.33	24.01	6.46	349.62	6.04	19.70	0.66	50.37
Last 5	14:09:27	3601.33	24.05	6.43	349.18	5.60	19.70	0.68	51.02
Last 5	14:14:27	3901.33	24.06	6.44	345.85	4.92	19.70	0.72	51.00
Last 5	14:19:28	4202.20	23.69	6.42	347.87	4.04	19.70	0.77	51.20
Variance 0			0.04	-0.02	-0.44			0.03	0.65
Variance 1			0.00	0.00	-3.34			0.03	-0.02
Variance 2			-0.36	-0.02	2.02			0.05	0.20

Notes

Collected at 14:25. Sunny 90s

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-25 12:22:28

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 30 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 30.67 ft  
Screen Length 10 ft  
Depth to Water 18.15 ft

Pumping Information:

Final Pumping Rate 280 mL/min  
Total System Volume 0.2239027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 11.2 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%	+/- 50
Last 5	11:56:06	900.02	21.15	5.85	177.67	2.35	18.40	0.28	41.88
Last 5	12:01:06	1200.02	21.23	5.84	186.94	1.81	18.40	0.27	42.75
Last 5	12:06:06	1500.02	21.20	5.85	193.54	1.41	18.40	0.25	43.39
Last 5	12:11:06	1800.02	21.28	5.85	198.80	1.27	18.40	0.21	43.90
Last 5	12:16:06	2100.02	21.28	5.86	199.25	1.68	18.40	0.18	44.84
Variance 0			-0.03	0.01	6.60			-0.02	0.63
Variance 1			0.08	-0.00	5.26			-0.04	0.51
Variance 2			-0.00	0.00	0.45			-0.03	0.93

Notes

Collected at 12:20. Sunny 90s. DUP 3 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-25 10:55:04

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 27 ft

Pump placement from TOC 21 ft

Well Information:

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 26.20 ft  
Screen Length 10 ft  
Depth to Water 8.51 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.2105124 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	10:32:10	600.02	21.67	6.20	706.52	4.30	10.00	0.20	53.34
Last 5	10:37:10	900.02	21.68	6.22	706.19	4.43	10.40	0.18	48.67
Last 5	10:42:10	1200.02	21.81	6.25	707.35	2.54	10.70	0.17	45.45
Last 5	10:47:10	1500.02	21.90	6.25	708.43	1.89	10.80	0.16	43.81
Last 5	10:52:10	1800.02	22.14	6.26	705.23	1.54	10.90	0.16	42.41
Variance 0			0.13	0.02	1.16			-0.01	-3.22
Variance 1			0.09	0.01	1.09			-0.01	-1.64
Variance 2			0.24	0.01	-3.21			-0.01	-1.41

Notes

Collected at 10:55. Sunny 80s. EB 3 here at 10:10 - water level.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-21 12:18:39

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 23 ft

Pump placement from TOC 16 ft

Well Information:

Well ID GWC-8  
Well diameter 2 in  
Well Total Depth 20.64 ft  
Screen Length 10 ft  
Depth to Water 9.72 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.1926587 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	11:55:39	600.02	21.70	6.02	325.80	4.65	9.90	0.14	58.82
Last 5	12:00:39	900.02	21.55	6.00	334.07	4.29	10.00	0.13	56.48
Last 5	12:05:39	1200.02	21.73	5.96	338.82	3.40	10.00	0.15	54.44
Last 5	12:10:39	1500.02	21.86	5.93	338.82	2.11	10.00	0.15	52.82
Last 5	12:15:39	1800.10	21.81	5.90	343.55	1.95	10.00	0.13	52.42
Variance 0			0.18	-0.04	4.75			0.01	-2.04
Variance 1			0.13	-0.03	0.01			-0.00	-1.61
Variance 2			-0.05	-0.03	4.72			-0.01	-0.40

Notes

Collected at 12:20. Cloudy 80s. FB 3 here at 12:50

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-21 11:22:43

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 20 ft

Pump placement from TOC 15 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.4 ft  
Screen Length 10 ft  
Depth to Water 7.85 ft

Pumping Information:

Final Pumping Rate 220 mL/min  
Total System Volume 0.1792685 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	11:00:37	1800.88	21.39	5.70	256.96	5.97	8.40	0.13	61.43
Last 5	11:05:37	2100.84	21.50	5.69	255.48	5.65	8.40	0.12	61.65
Last 5	11:10:37	2400.83	21.47	5.69	255.50	5.09	8.50	0.12	61.86
Last 5	11:15:37	2700.83	21.57	5.69	254.85	4.65	8.50	0.11	61.97
Last 5	11:20:37	3000.83	21.68	5.68	255.47	4.72	8.60	0.10	61.78
Variance 0			-0.03	-0.00	0.02			-0.00	0.22
Variance 1			0.10	-0.00	-0.65			-0.01	0.11
Variance 2			0.11	-0.00	0.62			-0.01	-0.20

Notes

Collected at 11:25. Cloudy 80s. EB 2 here at 10:45.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 14:16:33

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 22 ft

Pump placement from TOC 17 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 21.71 ft  
Screen Length 10 ft  
Depth to Water 12.05 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.1881953 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 96 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	13:48:06	1200.02	21.77	5.74	240.45	7.26	15.90	1.35	37.68
Last 5	13:53:06	1500.02	22.10	5.86	240.94	6.41	16.70	2.65	36.54
Last 5	13:58:07	1800.81	20.28	5.80	239.27	6.78	17.50	0.09	39.10
Last 5	14:03:07	2100.81	20.20	5.83	260.04	5.95	18.20	0.40	40.28
Last 5	14:08:07	2400.81	20.21	5.87	264.00	5.60	19.00	0.36	40.18
Variance 0			-1.82	-0.05	-1.67			-2.56	2.56
Variance 1			-0.08	0.03	20.78			0.31	1.17
Variance 2			0.01	0.04	3.96			-0.04	-0.10

Notes

Well purged dry before 3 well volumes.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-21 10:11:20

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 22 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-10  
Well diameter 2 in  
Well Total Depth 21.71 ft  
Screen Length 10 ft  
Depth to Water 12.15 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.1881953 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	10:08:30	300.08	23.74	5.76	232.68	5.94	12.70	5.86	90.14
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Collected at 09:45. Cloudy 80s. Well purged dry previous day. Collected grab sample next day.

Grab Samples



Product Name: Low-Flow System

Date: 2018-06-20 12:32:05

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 20 ft

Pump placement from TOC 13 ft

Well Information:

Well ID GWC-11  
Well diameter 2 in  
Well Total Depth 18.8 ft  
Screen Length 10 ft  
Depth to Water 7.02 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.1792685 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 in  
Total Volume Pumped 7.8 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	12:08:27	600.02	22.17	5.85	407.72	1.85	7.20	0.11	56.62
Last 5	12:13:27	900.28	22.26	5.87	412.69	1.70	7.20	0.09	50.62
Last 5	12:18:27	1200.28	22.31	5.89	416.82	1.33	7.20	0.08	45.41
Last 5	12:23:27	1500.28	22.32	5.90	423.02	1.12	7.20	0.07	40.63
Last 5	12:28:27	1800.28	22.35	5.92	423.20	1.20	7.20	0.06	36.41
Variance 0			0.04	0.02	4.13			-0.01	-5.21
Variance 1			0.01	0.01	6.20			-0.01	-4.79
Variance 2			0.03	0.02	0.18			-0.01	-4.22

Notes

Collected at 12:30. Sunny 90s

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-26 12:42:08

Project Information:

Operator Name H. Auld  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type  
Tubing Diameter .17 in  
Tubing Length 40.65 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 26.55 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2714382 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 32 in  
Total Volume Pumped 1.3 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%	+/- 100		+/- 0.5	+/- 100
Last 5	12:13:22	1500.02	23.57	7.43	323.26	9.10	28.90	0.69	285.84
Last 5	12:18:22	1800.02	23.57	7.44	322.97	8.20	28.95	0.71	286.52
Last 5	12:28:24	2401.22	24.38	7.44	322.41	6.20	29.00	0.63	273.17
Last 5	12:33:24	2701.22	24.24	7.44	322.88	5.50	29.10	0.59	267.54
Last 5	12:38:24	3001.22	23.97	7.43	324.32	3.60	29.20	0.54	251.11
Variance 0			0.81	0.00	-0.56			-0.09	-13.35
Variance 1			-0.14	0.00	0.47			-0.04	-5.63
Variance 2			-0.27	-0.01	1.45			-0.05	-16.43

Notes

Sampled at 1240. Sunny 90s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 11:19:55

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 90 ft

Pump placement from TOC 85 ft

Well Information:

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 90.40 ft  
Screen Length 10 ft  
Depth to Water 6.38 ft

Pumping Information:

Final Pumping Rate 260 mL/min  
Total System Volume 0.491708 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4 in  
Total Volume Pumped 9.1 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	10:58:22	600.02	20.76	6.75	63.75	0.93	6.70	2.63	60.92
Last 5	11:03:22	900.02	20.70	6.73	63.81	1.23	6.70	2.55	57.55
Last 5	11:08:22	1200.02	20.56	6.70	63.74	1.04	6.70	2.47	57.18
Last 5	11:13:22	1500.02	20.60	6.67	63.78	1.34	6.70	2.41	56.66
Last 5	11:18:22	1800.02	20.20	6.66	63.59	1.21	6.70	2.37	56.99
Variance 0			-0.13	-0.04	-0.07			-0.08	-0.37
Variance 1			0.04	-0.02	0.05			-0.07	-0.51
Variance 2			-0.40	-0.01	-0.20			-0.04	0.33

Notes

Collected at 11:20. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 13:22:05

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type Peri pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 30 ft

Pump placement from TOC 19.6 ft

Well Information:

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 24.60 ft  
Screen Length 10 ft  
Depth to Water 9.83 ft

Pumping Information:

Final Pumping Rate 210 mL/min  
Total System Volume 0.2239027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	13:00:22	900.02	20.88	4.94	645.67	10.20	10.00	0.09	341.18
Last 5	13:05:22	1200.02	20.75	4.96	659.80	7.65	10.00	1.34	319.01
Last 5	13:10:22	1500.02	20.97	4.99	652.68	6.78	10.00	0.09	300.02
Last 5	13:15:23	1801.02	21.06	5.02	644.21	4.35	10.00	0.08	285.69
Last 5	13:20:23	2101.02	21.24	5.05	633.33	4.08	10.00	0.00	273.99
Variance 0			0.22	0.03	-7.11			-1.25	-18.98
Variance 1			0.09	0.03	-8.48			-0.01	-14.33
Variance 2			0.18	0.03	-10.88			-0.08	-11.70

Notes

Sampled at 1320. Sunny 92F.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 12:01:35

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type Peri pump.  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 50 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 6.54 ft

Pumping Information:

Final Pumping Rate 180 mL/min  
Total System Volume 0.3131711 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	11:40:12	600.03	20.12	7.22	115.58	1.39	6.70	4.71	179.43
Last 5	11:45:12	900.02	19.94	7.24	115.63	1.38	6.70	4.70	183.96
Last 5	11:50:15	1203.02	19.91	7.25	115.98	0.76	6.70	4.73	187.07
Last 5	11:55:15	1503.02	19.95	7.25	116.06	0.59	6.70	4.74	191.78
Last 5	12:00:15	1803.02	20.39	7.24	115.32	0.62	6.70	4.63	195.37
Variance 0			-0.03	0.01	0.35			0.03	3.11
Variance 1			0.04	-0.00	0.09			0.00	4.70
Variance 2			0.44	-0.01	-0.74			-0.11	3.59

Notes

Sampled at 1200. Sunny 90F.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 14:32:39

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type peri pump  
Tubing Type poly  
Tubing Diameter .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 11.11 ft

Pumping Information:

Final Pumping Rate 160 mL/min  
Total System Volume 0.2239027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	14:10:18	600.02	20.35	6.08	98.14	1.11	11.40	3.64	405.36
Last 5	14:15:19	900.48	20.30	6.08	99.15	1.18	11.40	3.62	410.34
Last 5	14:20:19	1200.49	20.27	6.08	98.89	0.50	11.40	3.58	412.73
Last 5	14:25:19	1500.48	20.23	6.08	99.71	0.75	11.40	3.65	413.16
Last 5	14:30:19	1800.48	20.39	6.08	99.10	0.74	11.40	3.63	414.68
Variance 0			-0.03	0.00	-0.25			-0.04	2.39
Variance 1			-0.04	0.00	0.82			0.07	0.43
Variance 2			0.16	-0.00	-0.61			-0.02	1.52

Notes

Sample at 1430. Sunny 97F.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-26 14:31:49

Project Information:

Operator Name H. Auld  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type peristaltic pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 53.3 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 20.85 ft

Pumping Information:

Final Pumping Rate 110 mL/min  
Total System Volume 0.3279004 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 20 in  
Total Volume Pumped 1.2 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	14:09:03	1200.05	22.76	6.10	112.85	8.20	21.95	2.48	232.75
Last 5	14:14:07	1504.02	22.62	6.10	114.36	6.80	22.00	0.00	240.55
Last 5	14:19:07	1804.02	22.84	6.10	113.56	4.10	22.50	2.46	254.11
Last 5	14:24:10	2106.59	23.26	6.09	113.56	4.96	22.50	2.48	264.51
Last 5	14:29:10	2406.59	23.48	6.10	113.54	4.70	22.50	2.43	285.53
Variance 0			0.22	0.00	-0.80			2.46	13.56
Variance 1			0.42	-0.00	-0.00			0.02	10.40
Variance 2			0.22	0.01	-0.01			-0.05	21.02

Notes

Sampled at 1430. Sunny 90s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-21 13:35:24

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 29 ft

Pump placement from TOC 24 ft

Well Information:

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 29.77 ft  
Screen Length 10 ft  
Depth to Water 14.60 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5194393 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 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	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:14:46	900.02	19.67	5.88	86.62	0.95	14.70	0.39	91.48
Last 5	13:19:46	1200.02	19.14	5.88	86.49	0.83	14.70	0.37	87.42
Last 5	13:24:46	1500.01	19.00	5.88	86.46	0.83	14.70	0.35	85.42
Last 5	13:29:47	1801.01	19.31	5.88	86.50	0.79	14.70	0.36	83.71
Last 5	13:34:47	2101.05	19.72	5.87	86.86	0.59	14.70	0.35	82.28
Variance 0			-0.14	-0.00	-0.03			-0.02	-2.00
Variance 1			0.31	0.00	0.04			0.00	-1.71
Variance 2			0.41	-0.01	0.36			-0.00	-1.43

Notes

Collected at 13:34. Cloudy 80's.

Grab Samples



Product Name: Low-Flow System

Date: 2018-06-21 12:29:28

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 37 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.50 ft  
Screen Length 10 ft  
Depth to Water 9.28 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5551467 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 23 in  
Total Volume Pumped 16 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%	+/- 10		+/- 0.3	+/- 10
Last 5	12:08:54	3599.98	19.77	5.79	74.13	4.94	11.20	0.11	91.25
Last 5	12:13:54	3899.97	19.65	5.78	72.94	4.18	11.20	0.12	92.88
Last 5	12:18:54	4199.97	19.60	5.78	72.52	2.62	11.20	0.14	92.50
Last 5	12:23:54	4499.96	19.40	5.77	72.31	3.32	11.20	0.13	91.81
Last 5	12:28:54	4799.96	19.31	5.78	72.08	1.92	11.20	0.13	92.90
Variance 0			-0.05	-0.00	-0.41			0.02	-0.38
Variance 1			-0.20	-0.00	-0.21			-0.01	-0.69
Variance 2			-0.09	0.00	-0.23			-0.00	1.09

Notes

Collected at 12:28. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-21 10:22:38

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 71 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 6.21 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.7069031 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:00:44	900.01	20.23	6.67	111.78	0.57	6.30	5.46	103.12
Last 5	10:05:44	1199.99	20.26	6.67	112.76	0.46	6.30	5.48	96.97
Last 5	10:10:45	1501.00	20.35	6.68	111.15	0.59	6.40	5.40	95.13
Last 5	10:15:45	1801.01	20.24	6.67	110.76	0.38	6.40	5.32	90.37
Last 5	10:20:45	2101.00	20.00	6.65	110.57	0.62	6.40	5.25	88.82
Variance 0			0.09	0.01	-1.60			-0.08	-1.84
Variance 1			-0.11	-0.01	-0.39			-0.08	-4.76
Variance 2			-0.25	-0.01	-0.19			-0.07	-1.55

Notes

Collected at 10:20. Cloudy 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 14:50:59

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.30 ft  
Screen Length 10 ft  
Depth to Water 15.22 ft

Pumping Information:

Final Pumping Rate 115 mL/min  
Total System Volume 0.5596101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 27 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	14:30:19	900.03	22.21	5.50	54.64	3.60	17.00	0.26	104.77
Last 5	14:35:19	1200.02	22.08	5.49	54.11	1.75	17.30	0.27	102.56
Last 5	14:40:19	1500.02	21.72	5.49	53.71	2.72	17.50	0.29	100.46
Last 5	14:45:19	1800.01	21.85	5.48	52.77	1.81	17.50	0.23	100.13
Last 5	14:50:19	2100.01	22.16	5.48	52.66	1.85	17.50	0.25	98.00
Variance 0			-0.36	-0.00	-0.40			0.02	-2.10
Variance 1			0.13	-0.01	-0.94			-0.06	-0.33
Variance 2			0.31	-0.00	-0.10			0.03	-2.13

Notes

Collected at 14:50. Sunny 90's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 13:12:33

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 77 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 25.23 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.7336836 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6 in  
Total Volume Pumped 7.15 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:51:16	1800.00	19.94	6.39	117.69	4.59	25.80	3.74	93.39
Last 5	12:56:16	2099.99	19.93	6.40	117.58	3.65	25.80	3.57	91.05
Last 5	13:01:17	2401.01	19.85	6.40	117.17	3.23	25.80	3.50	89.94
Last 5	13:06:17	2701.00	19.79	6.41	116.49	2.57	25.80	3.61	88.79
Last 5	13:11:21	3005.00	19.87	6.42	115.55	1.81	25.80	3.53	88.15
Variance 0			-0.09	0.01	-0.40			-0.07	-1.12
Variance 1			-0.05	0.01	-0.69			0.11	-1.15
Variance 2			0.08	0.01	-0.94			-0.07	-0.64

Notes

Collected at 13:11. Sunny 90's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 11:13:11

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 67 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 35.31 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6890493 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9 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	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:51:29	1801.00	21.48	5.81	46.13	5.62	36.10	5.07	129.94
Last 5	10:56:29	2101.00	21.61	5.83	46.03	4.53	36.10	5.05	125.02
Last 5	11:01:29	2401.00	21.49	5.83	46.20	3.59	36.10	4.95	122.40
Last 5	11:06:29	2701.00	21.57	5.83	45.40	3.64	36.10	4.96	119.11
Last 5	11:11:29	3000.99	21.58	5.84	45.56	3.68	36.10	4.89	118.32
Variance 0			-0.12	0.01	0.17			-0.10	-2.63
Variance 1			0.07	-0.00	-0.80			0.01	-3.28
Variance 2			0.02	0.01	0.16			-0.08	-0.79

Notes

Collected at 11:11. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-27 16:11:56

Project Information:

Operator Name H. Auld  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type QED Sample Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 51.1 ft

Pump placement from TOC 46 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 41.0 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.6180809 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 51.5 in  
Total Volume Pumped 18.3 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%	+/- 100		+/- 0.5	+/- 100
Last 5	15:48:18	6008.68	23.48	5.53	32.64	4.70	45.00	8.37	346.29
Last 5	15:53:18	6308.68	23.28	5.51	33.09	4.30	45.10	0.00	335.81
Last 5	15:58:34	6624.68	24.79	5.49	32.96	5.80	45.20	8.30	342.68
Last 5	16:03:34	6924.68	24.98	5.50	32.85	4.80	45.30	8.38	337.23
Last 5	16:08:34	7224.68	25.19	5.51	32.50	4.80	45.40	8.31	344.62
Variance 0			1.51	-0.03	-0.13			8.30	6.87
Variance 1			0.20	0.02	-0.11			0.08	-5.45
Variance 2			0.21	0.01	-0.35			-0.07	7.39

Notes

Sampled at 1610. Sunny 90s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-27 15:38:43

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladderpump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 59 ft

Pump placement from TOC 56.5 ft

Well Information:

Well ID GWC-25  
Well diameter 2 in  
Well Total Depth 57.98 ft  
Screen Length 10 ft  
Depth to Water 48.98 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.6533419 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 78 in  
Total Volume Pumped 20.5 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	15:13:20	7200.87	20.96	6.27	138.64	1.46	55.10	1.23	89.81
Last 5	15:18:20	7500.87	20.69	6.28	136.01	1.30	55.20	1.12	88.94
Last 5	15:23:20	7800.87	20.70	6.29	131.96	1.45	55.30	1.15	88.99
Last 5	15:28:20	8100.87	20.60	6.29	128.65	1.32	55.30	1.26	87.93
Last 5	15:33:20	8400.87	21.22	6.28	126.48	1.08	55.40	1.26	86.69
Variance 0			0.00	0.00	-4.05			0.03	0.06
Variance 1			-0.10	0.00	-3.31			0.11	-1.07
Variance 2			0.62	-0.00	-2.17			0.00	-1.24

Notes

Collected at 15:35. Sunny 90s

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-27 12:15:05

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladderpump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 60 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 29.70 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.6578054 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 23 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	11:49:48	900.02	21.77	5.60	54.92	4.24	31.10	6.11	75.69
Last 5	11:54:48	1200.02	20.31	5.58	54.46	3.29	31.30	6.19	78.06
Last 5	11:59:48	1500.02	20.28	5.54	54.61	2.97	31.40	6.15	80.42
Last 5	12:04:50	1802.02	20.48	5.59	54.40	2.29	31.50	6.12	79.73
Last 5	12:09:50	2102.02	20.36	5.59	54.55	2.45	31.60	6.13	79.42
Variance 0			-0.04	-0.04	0.15			-0.04	2.36
Variance 1			0.21	0.05	-0.21			-0.03	-0.69
Variance 2			-0.12	-0.00	0.15			0.01	-0.31

Notes

Collected at 12:15. Cloudy 80s. FB 4 here at 12:00

Grab Samples



Product Name: Low-Flow System

Date: 2018-06-27 12:40:46

Project Information:

Operator Name H. Auld  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type QED Sample Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 70.8 ft

Pump placement from TOC 65 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.80 ft  
Screen Length 10 ft  
Depth to Water 43.1 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.7060104 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 44 in  
Total Volume Pumped 3.7 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	12:15:03	3001.02	19.64	5.59	55.13	4.10	46.50	0.00	245.16
Last 5	12:20:04	3302.02	19.99	5.58	55.04	3.70	46.60	4.04	235.71
Last 5	12:25:17	3614.74	19.64	5.59	54.78	4.10	46.70	3.24	241.41
Last 5	12:30:17	3914.74	19.36	5.58	54.71	3.90	46.80	3.29	242.90
Last 5	12:35:17	4214.74	19.50	5.58	53.77	3.80	46.80	3.28	239.28
Variance 0			-0.36	0.01	-0.26			-0.80	5.70
Variance 1			-0.27	-0.00	-0.07			0.05	1.49
Variance 2			0.14	-0.01	-0.94			-0.02	-3.62

Notes

Sampled at 1235. Overcast 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-21 13:37:14

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type QED Sample Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 50 ft

Pump placement from TOC 44.60 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 49.60 ft  
Screen Length 10 ft  
Depth to Water 25.96 ft

Pumping Information:

Final Pumping Rate 230 mL/min  
Total System Volume 0.6131712 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 51 in  
Total Volume Pumped 40 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%	+/- 100		+/- 0.5	+/- 100
Last 5	13:16:09	12605.26	20.71	5.96	53.68	12.90	30.30	5.19	198.28
Last 5	13:21:09	12905.26	20.50	5.95	53.28	13.00	30.30	5.18	207.63
Last 5	13:26:12	13208.15	20.49	5.94	53.16	12.40	30.30	5.15	202.92
Last 5	13:31:14	13510.15	21.06	5.95	53.12	10.60	30.30	5.17	201.63
Last 5	13:36:14	13810.15	21.82	5.95	53.14	7.61	30.30	5.16	196.95
Variance 0			-0.01	-0.00	-0.12			-0.03	-4.71
Variance 1			0.57	0.00	-0.04			0.02	-1.30
Variance 2			0.76	-0.00	0.02			-0.01	-4.67

Notes

Sampled at 1335. Light rain 80F.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-26 14:35:31

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladderpump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 37 ft

Pump placement from TOC 35.5 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 32.05 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.5551467 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	14:12:22	300.13	22.39	5.94	138.77	3.59	34.20	6.22	80.83
Last 5	14:17:22	600.03	22.08	5.97	141.18	4.91	34.60	6.10	80.25
Last 5	14:22:22	900.02	21.94	5.96	141.77	4.32	35.10	5.99	81.33
Last 5	14:27:22	1200.02	22.21	5.97	139.63	3.27	35.30	5.97	80.11
Last 5	14:32:22	1500.02	22.93	5.96	139.25	3.06	35.70	5.87	78.74
Variance 0			-0.14	-0.01	0.60			-0.12	1.08
Variance 1			0.27	0.01	-2.14			-0.01	-1.22
Variance 2			0.72	-0.00	-0.37			-0.11	-1.37

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-27 10:34:32

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED Bladderpump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 37 ft

Pump placement from TOC 35.5 ft

Well Information:

Well ID GWC-31  
Well diameter 2 in  
Well Total Depth 36.86 ft  
Screen Length 10 ft  
Depth to Water 35.10 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.5551467 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 12 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	10:31:48	300.03	23.63	5.99	144.47	6.44	36.00	6.96	90.98
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes  
Collected at 10:00. Sunny 80s. Well purged dry previous day. Allowed overnight recharge and collected sample.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-26 13:08:48

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 35 ft

Pump placement from TOC 32 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.10 ft  
Screen Length 10 ft  
Depth to Water 25.2 ft

Pumping Information:

Final Pumping Rate 10 mL/min  
Total System Volume 0.2462198 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 43 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	12:46:11	3900.21	22.77	5.98	119.10	2.59	29.60	5.15	75.35
Last 5	12:51:11	4200.21	22.51	5.96	120.35	1.36	29.70	4.76	76.66
Last 5	12:56:11	4500.21	22.92	5.95	123.60	1.87	29.70	4.30	76.22
Last 5	13:01:11	4800.21	22.75	5.96	122.86	1.56	29.80	4.23	76.75
Last 5	13:06:11	5100.09	22.17	5.97	125.54	2.13	29.80	4.16	76.86
Variance 0			0.41	-0.01	3.25			-0.46	-0.44
Variance 1			-0.17	0.01	-0.74			-0.07	0.53
Variance 2			-0.58	0.01	2.68			-0.07	0.11

Notes

Collected at 13:10. Sunny 90s

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-26 11:08:03

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type Poly  
Tubing Diameter .17 in  
Tubing Length 34 ft

Pump placement from TOC 21 ft

Well Information:

Well ID GWC-33  
Well diameter 2 in  
Well Total Depth 23.46 ft  
Screen Length 10 ft  
Depth to Water 13.66 ft

Pumping Information:

Final Pumping Rate 90 mL/min  
Total System Volume 0.2417564 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 75 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			+/- 2	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 50
Last 5	10:45:27	1200.71	20.25	6.13	170.12	3.00	19.10	6.30	72.91
Last 5	10:50:27	1500.71	20.34	6.14	172.04	1.69	19.40	6.31	72.57
Last 5	10:55:27	1800.71	20.52	6.15	173.37	0.97	19.70	6.08	72.94
Last 5	11:00:27	2100.71	20.78	6.16	173.25	0.54	19.80	6.42	72.26
Last 5	11:05:27	2400.71	20.92	6.15	174.12	1.35	19.90	6.13	75.06
Variance 0			0.18	0.01	1.33			-0.23	0.36
Variance 1			0.27	0.00	-0.13			0.34	-0.67
Variance 2			0.13	-0.01	0.88			-0.28	2.80

Notes

Collected at 11:10. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-20 10:33:24

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type Peri pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 50 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 8.49 ft

Pumping Information:

Final Pumping Rate 135 mL/min  
Total System Volume 0.3131711 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	10:11:03	600.71	20.61	5.97	59.84	4.18	8.50	0.37	138.91
Last 5	10:16:03	900.70	20.36	5.99	59.73	2.96	8.50	0.43	136.01
Last 5	10:21:04	1201.70	20.21	5.98	59.60	2.70	8.60	0.63	138.13
Last 5	10:26:07	1504.70	20.22	5.99	58.76	1.85	8.60	0.78	139.38
Last 5	10:31:07	1804.71	20.15	5.97	57.72	1.89	8.60	1.16	142.11
Variance 0			-0.15	-0.00	-0.13			0.20	2.12
Variance 1			0.01	0.00	-0.83			0.14	1.25
Variance 2			-0.07	-0.01	-1.04			0.38	2.73

Notes

Sampled at 1030. 87 F.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-19 15:30:57

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name Plant Wansley LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 463453  
Turbidity Make/Model Hach 2100

Pump Information:

Pump Model/Type Peri pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 45 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 8.49 ft

Pumping Information:

Final Pumping Rate 162 mL/min  
Total System Volume 0.290854 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 0.5	+/- 100
Last 5	15:10:10	600.02	20.26	5.63	53.26	3.15	8.60	1.91	425.70
Last 5	15:15:10	900.02	19.99	5.62	52.41	1.78	8.60	1.96	426.33
Last 5	15:20:10	1200.02	19.67	5.61	52.22	1.85	8.60	1.99	422.68
Last 5	15:25:10	1500.02	19.70	5.60	51.25	0.79	8.60	2.09	417.03
Last 5	15:30:10	1800.02	19.67	5.59	51.31	0.82	8.60	2.09	412.86
Variance 0			-0.32	-0.01	-0.19			0.03	-3.65
Variance 1			0.03	-0.01	-0.97			0.10	-5.65
Variance 2			-0.03	-0.01	0.06			0.01	-4.16

Notes

Sampled at 1530. Sunny 91F.

Grab Samples



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-159844-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR - Plant Wansley

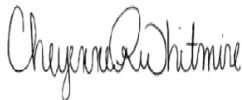
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

10/15/2018 6:05:22 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: 400-159844-1  
SDG: Landfill

---

**Job ID: 400-159844-1**

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**Laboratory: TestAmerica Pensacola**

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**Narrative**

**Job Narrative  
400-159844-1**

**Metals**

Method(s) 6020: The method blank for preparation batch 415140 and analytical batch 415292 contained Boron 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 post digestion spike % recovery for Calcium associated with batch 415292 was outside of control limits.

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# Detection Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Client Sample ID: GWA-29

## Lab Sample ID: 400-159844-1

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	2.3		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	9.1		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.6		0.25	0.13	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: 400-159844-2

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
Calcium	29		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: EB-1-9-25-18

## Lab Sample ID: 400-159844-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-25

## Lab Sample ID: 400-159844-4

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	12		1.0	0.70	mg/L	1		300.0	Total/NA
Boron	0.023	J B	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	9.2		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-8

## Lab Sample ID: 400-159844-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	20		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	34		0.25	0.13	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-9

## Lab Sample ID: 400-159844-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.082	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
Boron	0.14	B	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	18		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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Client Sample ID: GWC-26

## Lab Sample ID: 400-159844-7

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
Calcium	2.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-21

## Lab Sample ID: 400-159844-8

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
Calcium	4.6		0.25	0.13	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-27

## Lab Sample ID: 400-159844-9

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	0.91		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	3.4		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

## Client Sample ID: GWA-2

## Lab Sample ID: 400-159844-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		1.0	0.89	mg/L	1		300.0	Total/NA
Sulfate	0.78	J	1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.0		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-6

## Lab Sample ID: 400-159844-11

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	14		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-1

## Lab Sample ID: 400-159844-12

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	14		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	16		0.25	0.13	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-10

## Lab Sample ID: 400-159844-13

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Client Sample ID: GWC-10 (Continued)

## Lab Sample ID: 400-159844-13

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	0.59		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	28		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	13		0.25	0.13	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-20

## Lab Sample ID: 400-159844-14

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	1.2		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	9.8		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: FB-1-9-27-18

## Lab Sample ID: 400-159844-15

No Detections.

## Client Sample ID: GWC-19

## Lab Sample ID: 400-159844-16

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
Calcium	5.9		0.25	0.13	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-11

## Lab Sample ID: 400-159844-17

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	0.12	J	0.20	0.082	mg/L	1		300.0	Total/NA
Calcium	9.0		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-18

## Lab Sample ID: 400-159844-18

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
Calcium	6.9		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: EB-2-9-28-18

## Lab Sample ID: 400-159844-19

No Detections.

## Client Sample ID: GWC-24

## Lab Sample ID: 400-159844-20

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Client Sample ID: GWC-24 (Continued)

## Lab Sample ID: 400-159844-20

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
Calcium	0.81		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-12

## Lab Sample ID: 400-159844-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		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	24		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	46		0.25	0.13	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-28

## Lab Sample ID: 400-159844-22

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	1.3		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.8		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: GWA-1

## Lab Sample ID: 400-159844-23

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	24		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: 400-159844-1  
SDG: Landfill

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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

#### Protocol References:

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

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

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

#### Laboratory References:

TAL PEN = 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: 400-159844-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-159844-1	GWA-29	Water	09/25/18 11:20	09/28/18 09:15
400-159844-2	GWA-4	Water	09/25/18 14:35	09/28/18 09:15
400-159844-3	EB-1-9-25-18	Water	09/25/18 14:50	09/28/18 09:15
400-159844-4	GWC-25	Water	09/26/18 12:54	09/28/18 09:15
400-159844-5	GWC-8	Water	09/26/18 12:00	09/28/18 09:15
400-159844-6	GWC-9	Water	09/26/18 13:25	09/28/18 09:15
400-159844-7	GWC-26	Water	09/27/18 11:10	09/28/18 09:15
400-159844-8	GWC-21	Water	09/27/18 11:05	09/28/18 09:15
400-159844-9	GWC-27	Water	09/27/18 12:35	09/28/18 09:15
400-159844-10	GWA-2	Water	09/25/18 11:46	09/28/18 09:15
400-159844-11	GWC-6	Water	09/25/18 15:39	09/28/18 09:15
400-159844-12	DUP-1	Water	09/25/18 00:00	09/28/18 09:15
400-159844-13	GWC-10	Water	09/27/18 10:50	09/28/18 09:15
400-159844-14	GWC-20	Water	09/27/18 12:15	09/28/18 09:15
400-159844-15	FB-1-9-27-18	Water	09/27/18 12:50	09/28/18 09:15
400-159844-16	GWC-19	Water	09/27/18 13:25	09/28/18 09:15
400-159844-17	GWC-11	Water	09/27/18 14:22	09/29/18 09:20
400-159844-18	GWC-18	Water	09/28/18 10:30	09/29/18 09:20
400-159844-19	EB-2-9-28-18	Water	09/28/18 11:10	09/29/18 09:20
400-159844-20	GWC-24	Water	09/28/18 11:30	09/29/18 09:20
400-159844-21	GWC-12	Water	09/28/18 11:14	09/29/18 09:20
400-159844-22	GWA-28	Water	09/25/18 12:15	09/29/18 09:20
400-159844-23	GWA-1	Water	09/25/18 13:45	09/29/18 09:20

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWA-29**  
**Date Collected: 09/25/18 11:20**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-1**  
**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			10/08/18 12:03	1
Fluoride	2.3		0.20	0.082	mg/L			10/08/18 12:03	1
Sulfate	9.1		1.0	0.70	mg/L			10/08/18 12:03	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		10/11/18 10:25	10/11/18 23:37	5
Calcium	4.6		0.25	0.13	mg/L		10/11/18 10:25	10/11/18 23:37	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	80		5.0	3.4	mg/L			10/01/18 15:30	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWA-4**  
**Date Collected: 09/25/18 14:35**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-2**  
**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			10/08/18 12:26	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 12:26	1
<b>Sulfate</b>	<b>9.7</b>		1.0	0.70	mg/L			10/08/18 12:26	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		10/11/18 10:25	10/11/18 23:42	5
<b>Calcium</b>	<b>29</b>		0.25	0.13	mg/L		10/11/18 10:25	10/11/18 23:42	5

**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			09/29/18 14:50	1

- 1
- 2
- 3
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- 10
- 11
- 12
- 13
- 14

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Client Sample ID: EB-1-9-25-18**

**Lab Sample ID: 400-159844-3**

**Date Collected: 09/25/18 14:50**

**Matrix: Water**

**Date Received: 09/28/18 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			10/08/18 12:49	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 12:49	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 12:49	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		10/11/18 10:25	10/11/18 23:46	5
Calcium	<0.13		0.25	0.13	mg/L		10/11/18 10:25	10/11/18 23:46	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6.0		5.0	3.4	mg/L			09/29/18 14:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-25**  
**Date Collected: 09/26/18 12:54**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-4**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		1.0	0.89	mg/L			10/08/18 13:11	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 13:11	1
Sulfate	12		1.0	0.70	mg/L			10/08/18 13:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.023	J B	0.050	0.021	mg/L		10/12/18 10:52	10/12/18 18:56	5
Calcium	9.2		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 18:56	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			09/29/18 14:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 09/26/18 12:00**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-5**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>5.4</b>		1.0	0.89	mg/L			10/08/18 16:37	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 16:37	1
<b>Sulfate</b>	<b>20</b>		1.0	0.70	mg/L			10/08/18 16:37	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		10/12/18 10:52	10/12/18 19:41	5
<b>Calcium</b>	<b>34</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 19:41	5

**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			09/29/18 14:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-9**

**Date Collected: 09/26/18 13:25**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-6**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		1.0	0.89	mg/L			10/08/18 17:00	1
Fluoride	0.082	J	0.20	0.082	mg/L			10/08/18 17:00	1
Sulfate	17		1.0	0.70	mg/L			10/08/18 17:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.14	B	0.050	0.021	mg/L		10/12/18 10:52	10/12/18 19:45	5
Calcium	18		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 19:45	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			09/29/18 14:50	1

- 1
- 2
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- 12
- 13
- 14

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-26**  
**Date Collected: 09/27/18 11:10**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-7**  
**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			10/08/18 18:08	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 18:08	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 18:08	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		10/12/18 10:52	10/12/18 19:49	5
<b>Calcium</b>	<b>2.1</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 19:49	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			09/30/18 16:18	1



# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-21**  
**Date Collected: 09/27/18 11:05**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-8**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>3.1</b>		1.0	0.89	mg/L			10/08/18 18:31	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 18:31	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 18:31	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		10/12/18 10:52	10/12/18 19:54	5
<b>Calcium</b>	<b>4.6</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 19:54	5

## 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			10/02/18 11:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-27**  
**Date Collected: 09/27/18 12:35**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-9**  
**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			10/08/18 19:39	1
Fluoride	0.91		0.20	0.082	mg/L			10/08/18 19:39	1
Sulfate	2.5		1.0	0.70	mg/L			10/08/18 19:39	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		10/12/18 10:52	10/12/18 19:58	5
Calcium	3.4		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 19:58	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	58		5.0	3.4	mg/L			09/30/18 16:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Client Sample ID: GWA-2**

**Date Collected: 09/25/18 11:46**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-10**

**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			10/08/18 20:02	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 20:02	1
Sulfate	0.78	J	1.0	0.70	mg/L			10/08/18 20:02	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		10/12/18 10:52	10/12/18 20:03	5
Calcium	4.0		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:03	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			09/29/18 14:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-6**

**Date Collected: 09/25/18 15:39**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-11**

**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			10/08/18 20:25	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 20:25	1
<b>Sulfate</b>	<b>14</b>		1.0	0.70	mg/L			10/08/18 20:25	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		10/12/18 10:52	10/12/18 20:07	5
<b>Calcium</b>	<b>15</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:07	5

## 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			09/29/18 14:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: DUP-1**

**Date Collected: 09/25/18 00:00**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-12**

**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			10/08/18 20:48	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 20:48	1
<b>Sulfate</b>	<b>14</b>		1.0	0.70	mg/L			10/08/18 20:48	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		10/12/18 10:52	10/12/18 20:12	5
<b>Calcium</b>	<b>16</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:12	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			09/29/18 14:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-10**  
**Date Collected: 09/27/18 10:50**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-13**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		1.0	0.89	mg/L			10/08/18 21:10	1
Fluoride	0.59		0.20	0.082	mg/L			10/08/18 21:10	1
Sulfate	28		1.0	0.70	mg/L			10/08/18 21:10	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		10/12/18 10:52	10/12/18 20:16	5
Calcium	13		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:16	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	200		5.0	3.4	mg/L			09/30/18 16:18	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: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-20**  
**Date Collected: 09/27/18 12:15**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-14**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.8</b>		1.0	0.89	mg/L			10/09/18 00:13	1
Fluoride	<0.082		0.20	0.082	mg/L			10/09/18 00:13	1
<b>Sulfate</b>	<b>1.2</b>		1.0	0.70	mg/L			10/09/18 00:13	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		10/12/18 10:52	10/12/18 20:21	5
<b>Calcium</b>	<b>9.8</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:21	5

## 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			09/30/18 16:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: FB-1-9-27-18**

**Lab Sample ID: 400-159844-15**

**Date Collected: 09/27/18 12:50**

**Matrix: Water**

**Date Received: 09/28/18 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			10/09/18 00:36	1
Fluoride	<0.082		0.20	0.082	mg/L			10/09/18 00:36	1
Sulfate	<0.70		1.0	0.70	mg/L			10/09/18 00:36	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		10/12/18 10:52	10/12/18 20:48	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:48	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			10/02/18 11:34	1



# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-19**

**Date Collected: 09/27/18 13:25**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-16**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.3</b>		1.0	0.89	mg/L			10/09/18 00:59	1
Fluoride	<0.082		0.20	0.082	mg/L			10/09/18 00:59	1
Sulfate	<0.70		1.0	0.70	mg/L			10/09/18 00:59	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		10/12/18 10:52	10/12/18 20:52	5
<b>Calcium</b>	<b>5.9</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:52	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>62</b>		5.0	3.4	mg/L			10/02/18 11:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-11**  
**Date Collected: 09/27/18 14:22**  
**Date Received: 09/29/18 09:20**

**Lab Sample ID: 400-159844-17**  
**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			10/08/18 21:33	1
Fluoride	0.12	J	0.20	0.082	mg/L			10/08/18 21:33	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 21:33	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		10/12/18 10:52	10/12/18 20:56	5
Calcium	9.0		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 20:56	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		5.0	3.4	mg/L			10/02/18 11:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-159844-18**

**Date Collected: 09/28/18 10:30**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

### 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			10/08/18 22:19	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 22:19	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 22:19	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		10/12/18 10:52	10/12/18 21:01	5
<b>Calcium</b>	<b>6.9</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 21:01	5

### 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			10/02/18 11:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: EB-2-9-28-18**

**Lab Sample ID: 400-159844-19**

**Date Collected: 09/28/18 11:10**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

## 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			10/08/18 22:42	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 22:42	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 22:42	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		10/12/18 10:52	10/12/18 21:06	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 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			10/04/18 17:11	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-24**  
**Date Collected: 09/28/18 11:30**  
**Date Received: 09/29/18 09:20**

**Lab Sample ID: 400-159844-20**  
**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			10/08/18 23:05	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 23:05	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 23:05	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		10/12/18 10:52	10/12/18 21:10	5
<b>Calcium</b>	<b>0.81</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 21:10	5

### 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			10/02/18 11:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWC-12**  
**Date Collected: 09/28/18 11:14**  
**Date Received: 09/29/18 09:20**

**Lab Sample ID: 400-159844-21**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		1.0	0.89	mg/L			10/09/18 04:24	1
Fluoride	0.20		0.20	0.082	mg/L			10/09/18 04:24	1
Sulfate	24		1.0	0.70	mg/L			10/09/18 04:24	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		10/12/18 10:52	10/12/18 21:15	5
Calcium	46		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 21:15	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	180		5.0	3.4	mg/L			10/02/18 11:34	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWA-28**  
**Date Collected: 09/25/18 12:15**  
**Date Received: 09/29/18 09:20**

**Lab Sample ID: 400-159844-22**  
**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			10/09/18 05:32	1
Fluoride	1.7		0.20	0.082	mg/L			10/09/18 05:32	1
Sulfate	1.3		1.0	0.70	mg/L			10/09/18 05:32	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		10/12/18 10:52	10/12/18 21:19	5
Calcium	2.8		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 21:19	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		5.0	3.4	mg/L			09/29/18 15:51	1

# Client Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

**Client Sample ID: GWA-1**  
**Date Collected: 09/25/18 13:45**  
**Date Received: 09/29/18 09:20**

**Lab Sample ID: 400-159844-23**  
**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			10/09/18 09:43	1
Fluoride	<0.082		0.20	0.082	mg/L			10/09/18 09:43	1
Sulfate	<0.70		1.0	0.70	mg/L			10/09/18 09:43	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		10/12/18 10:52	10/12/18 21:23	5
<b>Calcium</b>	<b>0.73</b>		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 21:23	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids</b>	<b>24</b>		5.0	3.4	mg/L			09/29/18 15:51	1



# Definitions/Glossary

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

TestAmerica Job ID: 400-159844-1  
SDG: 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.

### Metals

Qualifier	Qualifier Description
^	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	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: 400-159844-1  
SDG: Landfill

**Client Sample ID: GWA-29**

**Date Collected: 09/25/18 11:20**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414481	10/08/18 12:03	BAW	TAL PEN
Total Recoverable	Prep	3005A			414950	10/11/18 10:25	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415116	10/11/18 23:37	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413651	10/01/18 15:30	CLB	TAL PEN

**Client Sample ID: GWA-4**

**Date Collected: 09/25/18 14:35**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414481	10/08/18 12:26	BAW	TAL PEN
Total Recoverable	Prep	3005A			414950	10/11/18 10:25	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415116	10/11/18 23:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

**Client Sample ID: EB-1-9-25-18**

**Date Collected: 09/25/18 14:50**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414481	10/08/18 12:49	BAW	TAL PEN
Total Recoverable	Prep	3005A			414950	10/11/18 10:25	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415116	10/11/18 23:46	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

**Client Sample ID: GWC-25**

**Date Collected: 09/26/18 12:54**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414481	10/08/18 13:11	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 18:56	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

**Client Sample ID: GWC-8**

**Date Collected: 09/26/18 12:00**

**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 16:37	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Client Sample ID: GWC-8**  
**Date Collected: 09/26/18 12:00**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	415292	10/12/18 19:41	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

**Client Sample ID: GWC-9**  
**Date Collected: 09/26/18 13:25**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 17:00	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 19:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

**Client Sample ID: GWC-26**  
**Date Collected: 09/27/18 11:10**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-7**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 18:08	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 19:49	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413549	09/30/18 16:18	DEK	TAL PEN

**Client Sample ID: GWC-21**  
**Date Collected: 09/27/18 11:05**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 18:31	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 19:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

**Client Sample ID: GWC-27**  
**Date Collected: 09/27/18 12:35**  
**Date Received: 09/28/18 09:15**

**Lab Sample ID: 400-159844-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 19:39	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 19:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413549	09/30/18 16:18	DEK	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Client Sample ID: GWA-2

Lab Sample ID: 400-159844-10

Date Collected: 09/25/18 11:46

Matrix: Water

Date Received: 09/28/18 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 20:02	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

## Client Sample ID: GWC-6

Lab Sample ID: 400-159844-11

Date Collected: 09/25/18 15:39

Matrix: Water

Date Received: 09/28/18 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 20:25	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:07	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

## Client Sample ID: DUP-1

Lab Sample ID: 400-159844-12

Date Collected: 09/25/18 00:00

Matrix: Water

Date Received: 09/28/18 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 20:48	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413497	09/29/18 14:50	DEK	TAL PEN

## Client Sample ID: GWC-10

Lab Sample ID: 400-159844-13

Date Collected: 09/27/18 10:50

Matrix: Water

Date Received: 09/28/18 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 21:10	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:16	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413549	09/30/18 16:18	DEK	TAL PEN

## Client Sample ID: GWC-20

Lab Sample ID: 400-159844-14

Date Collected: 09/27/18 12:15

Matrix: Water

Date Received: 09/28/18 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/09/18 00:13	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Client Sample ID: GWC-20**

**Lab Sample ID: 400-159844-14**

**Date Collected: 09/27/18 12:15**

**Matrix: Water**

**Date Received: 09/28/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:21	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413549	09/30/18 16:18	DEK	TAL PEN

**Client Sample ID: FB-1-9-27-18**

**Lab Sample ID: 400-159844-15**

**Date Collected: 09/27/18 12:50**

**Matrix: Water**

**Date Received: 09/28/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/09/18 00:36	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

**Client Sample ID: GWC-19**

**Lab Sample ID: 400-159844-16**

**Date Collected: 09/27/18 13:25**

**Matrix: Water**

**Date Received: 09/28/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/09/18 00:59	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:52	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

**Client Sample ID: GWC-11**

**Lab Sample ID: 400-159844-17**

**Date Collected: 09/27/18 14:22**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 21:33	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 20:56	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

**Client Sample ID: GWC-18**

**Lab Sample ID: 400-159844-18**

**Date Collected: 09/28/18 10:30**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 22:19	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 21:01	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Client Sample ID: EB-2-9-28-18**

**Lab Sample ID: 400-159844-19**

**Date Collected: 09/28/18 11:10**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 22:42	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 21:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414174	10/04/18 17:11	DEK	TAL PEN

**Client Sample ID: GWC-24**

**Lab Sample ID: 400-159844-20**

**Date Collected: 09/28/18 11:30**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414549	10/08/18 23:05	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 21:10	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

**Client Sample ID: GWC-12**

**Lab Sample ID: 400-159844-21**

**Date Collected: 09/28/18 11:14**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414676	10/09/18 04:24	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 21:15	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413725	10/02/18 11:34	CLB	TAL PEN

**Client Sample ID: GWA-28**

**Lab Sample ID: 400-159844-22**

**Date Collected: 09/25/18 12:15**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414676	10/09/18 05:32	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	415292	10/12/18 21:19	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413500	09/29/18 15:51	DEK	TAL PEN

**Client Sample ID: GWA-1**

**Lab Sample ID: 400-159844-23**

**Date Collected: 09/25/18 13:45**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	414676	10/09/18 09:43	BAW	TAL PEN
Total Recoverable	Prep	3005A			415140	10/12/18 10:52	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Client Sample ID: GWA-1**

**Lab Sample ID: 400-159844-23**

**Date Collected: 09/25/18 13:45**

**Matrix: Water**

**Date Received: 09/29/18 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	415292	10/12/18 21:23	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	413500	09/29/18 15:51	DEK	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: 400-159844-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 414481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-1	GWA-29	Total/NA	Water	300.0	
400-159844-2	GWA-4	Total/NA	Water	300.0	
400-159844-3	EB-1-9-25-18	Total/NA	Water	300.0	
400-159844-4	GWC-25	Total/NA	Water	300.0	
MB 400-414481/36	Method Blank	Total/NA	Water	300.0	
LCS 400-414481/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-414481/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160215-I-5 MS	Matrix Spike	Total/NA	Water	300.0	
400-160215-I-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 414549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-5	GWC-8	Total/NA	Water	300.0	
400-159844-6	GWC-9	Total/NA	Water	300.0	
400-159844-7	GWC-26	Total/NA	Water	300.0	
400-159844-8	GWC-21	Total/NA	Water	300.0	
400-159844-9	GWC-27	Total/NA	Water	300.0	
400-159844-10	GWA-2	Total/NA	Water	300.0	
400-159844-11	GWC-6	Total/NA	Water	300.0	
400-159844-12	DUP-1	Total/NA	Water	300.0	
400-159844-13	GWC-10	Total/NA	Water	300.0	
400-159844-14	GWC-20	Total/NA	Water	300.0	
400-159844-15	FB-1-9-27-18	Total/NA	Water	300.0	
400-159844-16	GWC-19	Total/NA	Water	300.0	
400-159844-17	GWC-11	Total/NA	Water	300.0	
400-159844-18	GWC-18	Total/NA	Water	300.0	
400-159844-19	EB-2-9-28-18	Total/NA	Water	300.0	
400-159844-20	GWC-24	Total/NA	Water	300.0	
MB 400-414549/4	Method Blank	Total/NA	Water	300.0	
LCS 400-414549/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-414549/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-159980-D-3 MS	Matrix Spike	Total/NA	Water	300.0	
400-159980-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 414676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-21	GWC-12	Total/NA	Water	300.0	
400-159844-22	GWA-28	Total/NA	Water	300.0	
400-159844-23	GWA-1	Total/NA	Water	300.0	
MB 400-414676/36	Method Blank	Total/NA	Water	300.0	
LCS 400-414676/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-414676/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-159844-21 MS	GWC-12	Total/NA	Water	300.0	
400-159844-21 MSD	GWC-12	Total/NA	Water	300.0	

## Metals

### Prep Batch: 414950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-1	GWA-29	Total Recoverable	Water	3005A	

TestAmerica Pensacola



# QC Association Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Metals (Continued)

### Prep Batch: 414950 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-2	GWA-4	Total Recoverable	Water	3005A	
400-159844-3	EB-1-9-25-18	Total Recoverable	Water	3005A	
MB 400-414950/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-414950/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-159826-J-1-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-159826-J-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Analysis Batch: 415116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-1	GWA-29	Total Recoverable	Water	6020	414950
400-159844-2	GWA-4	Total Recoverable	Water	6020	414950
400-159844-3	EB-1-9-25-18	Total Recoverable	Water	6020	414950
MB 400-414950/1-A ^5	Method Blank	Total Recoverable	Water	6020	414950
LCS 400-414950/2-A	Lab Control Sample	Total Recoverable	Water	6020	414950
400-159826-J-1-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	414950
400-159826-J-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	414950

### Prep Batch: 415140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-4	GWC-25	Total Recoverable	Water	3005A	
400-159844-5	GWC-8	Total Recoverable	Water	3005A	
400-159844-6	GWC-9	Total Recoverable	Water	3005A	
400-159844-7	GWC-26	Total Recoverable	Water	3005A	
400-159844-8	GWC-21	Total Recoverable	Water	3005A	
400-159844-9	GWC-27	Total Recoverable	Water	3005A	
400-159844-10	GWA-2	Total Recoverable	Water	3005A	
400-159844-11	GWC-6	Total Recoverable	Water	3005A	
400-159844-12	DUP-1	Total Recoverable	Water	3005A	
400-159844-13	GWC-10	Total Recoverable	Water	3005A	
400-159844-14	GWC-20	Total Recoverable	Water	3005A	
400-159844-15	FB-1-9-27-18	Total Recoverable	Water	3005A	
400-159844-16	GWC-19	Total Recoverable	Water	3005A	
400-159844-17	GWC-11	Total Recoverable	Water	3005A	
400-159844-18	GWC-18	Total Recoverable	Water	3005A	
400-159844-19	EB-2-9-28-18	Total Recoverable	Water	3005A	
400-159844-20	GWC-24	Total Recoverable	Water	3005A	
400-159844-21	GWC-12	Total Recoverable	Water	3005A	
400-159844-22	GWA-28	Total Recoverable	Water	3005A	
400-159844-23	GWA-1	Total Recoverable	Water	3005A	
MB 400-415140/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-415140/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-159844-4 MS	GWC-25	Total Recoverable	Water	3005A	
400-159844-4 MSD	GWC-25	Total Recoverable	Water	3005A	

### Analysis Batch: 415292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-4	GWC-25	Total Recoverable	Water	6020	415140
400-159844-5	GWC-8	Total Recoverable	Water	6020	415140
400-159844-6	GWC-9	Total Recoverable	Water	6020	415140
400-159844-7	GWC-26	Total Recoverable	Water	6020	415140
400-159844-8	GWC-21	Total Recoverable	Water	6020	415140

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Metals (Continued)

### Analysis Batch: 415292 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-9	GWC-27	Total Recoverable	Water	6020	415140
400-159844-10	GWA-2	Total Recoverable	Water	6020	415140
400-159844-11	GWC-6	Total Recoverable	Water	6020	415140
400-159844-12	DUP-1	Total Recoverable	Water	6020	415140
400-159844-13	GWC-10	Total Recoverable	Water	6020	415140
400-159844-14	GWC-20	Total Recoverable	Water	6020	415140
400-159844-15	FB-1-9-27-18	Total Recoverable	Water	6020	415140
400-159844-16	GWC-19	Total Recoverable	Water	6020	415140
400-159844-17	GWC-11	Total Recoverable	Water	6020	415140
400-159844-18	GWC-18	Total Recoverable	Water	6020	415140
400-159844-19	EB-2-9-28-18	Total Recoverable	Water	6020	415140
400-159844-20	GWC-24	Total Recoverable	Water	6020	415140
400-159844-21	GWC-12	Total Recoverable	Water	6020	415140
400-159844-22	GWA-28	Total Recoverable	Water	6020	415140
400-159844-23	GWA-1	Total Recoverable	Water	6020	415140
MB 400-415140/1-A ^5	Method Blank	Total Recoverable	Water	6020	415140
LCS 400-414950/2-A	Lab Control Sample	Total Recoverable	Water	6020	414950
LCS 400-415140/2-A	Lab Control Sample	Total Recoverable	Water	6020	415140
400-159844-4 MS	GWC-25	Total Recoverable	Water	6020	415140
400-159844-4 MSD	GWC-25	Total Recoverable	Water	6020	415140

## General Chemistry

### Analysis Batch: 413497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-2	GWA-4	Total/NA	Water	SM 2540C	
400-159844-3	EB-1-9-25-18	Total/NA	Water	SM 2540C	
400-159844-4	GWC-25	Total/NA	Water	SM 2540C	
400-159844-5	GWC-8	Total/NA	Water	SM 2540C	
400-159844-6	GWC-9	Total/NA	Water	SM 2540C	
400-159844-10	GWA-2	Total/NA	Water	SM 2540C	
400-159844-11	GWC-6	Total/NA	Water	SM 2540C	
400-159844-12	DUP-1	Total/NA	Water	SM 2540C	
MB 400-413497/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-413497/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159844-6 DU	GWC-9	Total/NA	Water	SM 2540C	

### Analysis Batch: 413500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-22	GWA-28	Total/NA	Water	SM 2540C	
400-159844-23	GWA-1	Total/NA	Water	SM 2540C	
MB 400-413500/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-413500/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-158986-B-31 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 413549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-7	GWC-26	Total/NA	Water	SM 2540C	
400-159844-9	GWC-27	Total/NA	Water	SM 2540C	
400-159844-13	GWC-10	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## General Chemistry (Continued)

### Analysis Batch: 413549 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-14	GWC-20	Total/NA	Water	SM 2540C	
MB 400-413549/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-413549/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159844-14 DU	GWC-20	Total/NA	Water	SM 2540C	
490-160072-I-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 413651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-1	GWA-29	Total/NA	Water	SM 2540C	
MB 400-413651/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-413651/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159844-1 DU	GWA-29	Total/NA	Water	SM 2540C	

### Analysis Batch: 413725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-8	GWC-21	Total/NA	Water	SM 2540C	
400-159844-15	FB-1-9-27-18	Total/NA	Water	SM 2540C	
400-159844-16	GWC-19	Total/NA	Water	SM 2540C	
400-159844-17	GWC-11	Total/NA	Water	SM 2540C	
400-159844-18	GWC-18	Total/NA	Water	SM 2540C	
400-159844-20	GWC-24	Total/NA	Water	SM 2540C	
400-159844-21	GWC-12	Total/NA	Water	SM 2540C	
MB 400-413725/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-413725/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159791-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-159844-17 DU	GWC-11	Total/NA	Water	SM 2540C	

### Analysis Batch: 414174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-159844-19	EB-2-9-28-18	Total/NA	Water	SM 2540C	
MB 400-414174/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-414174/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159944-G-6 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-414481/36**  
**Matrix: Water**  
**Analysis Batch: 414481**

**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			10/08/18 02:10	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 02:10	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 02:10	1

**Lab Sample ID: LCS 400-414481/37**  
**Matrix: Water**  
**Analysis Batch: 414481**

**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	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-414481/38**  
**Matrix: Water**  
**Analysis Batch: 414481**

**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	1	15
Fluoride	10.0	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	9.98		mg/L		100	90 - 110	1	15

**Lab Sample ID: 400-160215-I-5 MS**  
**Matrix: Water**  
**Analysis Batch: 414481**

**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	8.1	F1	10.0	18.4		mg/L		104	80 - 120
Fluoride	<0.16	F1	10.0	11.1		mg/L		111	80 - 120
Sulfate	73	F1	10.0	83.8	4	mg/L		105	80 - 120

**Lab Sample ID: 400-160215-I-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 414481**

**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	8.1	F1	10.0	18.4		mg/L		103	80 - 120	0	20
Fluoride	<0.16	F1	10.0	11.1		mg/L		111	80 - 120	0	20
Sulfate	73	F1	10.0	83.5	4	mg/L		103	80 - 120	0	20

**Lab Sample ID: MB 400-414549/4**  
**Matrix: Water**  
**Analysis Batch: 414549**

**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			10/08/18 14:20	1
Fluoride	<0.082		0.20	0.082	mg/L			10/08/18 14:20	1
Sulfate	<0.70		1.0	0.70	mg/L			10/08/18 14:20	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-414549/5**  
**Matrix: Water**  
**Analysis Batch: 414549**

**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	10.6		mg/L		106	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

**Lab Sample ID: LCSD 400-414549/6**  
**Matrix: Water**  
**Analysis Batch: 414549**

**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	10.5		mg/L		105	90 - 110	1	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	2	15

**Lab Sample ID: 400-159980-D-3 MS**  
**Matrix: Water**  
**Analysis Batch: 414549**

**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	27.6		mg/L		97	80 - 120
Fluoride	0.12	J	10.0	11.0		mg/L		108	80 - 120
Sulfate	13		10.0	23.9		mg/L		108	80 - 120

**Lab Sample ID: 400-159980-D-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 414549**

**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	27.6		mg/L		98	80 - 120	0	20
Fluoride	0.12	J	10.0	10.8		mg/L		107	80 - 120	2	20
Sulfate	13		10.0	24.2		mg/L		111	80 - 120	1	20

**Lab Sample ID: MB 400-414676/36**  
**Matrix: Water**  
**Analysis Batch: 414676**

**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			10/09/18 03:15	1
Fluoride	<0.082		0.20	0.082	mg/L			10/09/18 03:15	1
Sulfate	<0.70		1.0	0.70	mg/L			10/09/18 03:15	1

**Lab Sample ID: LCS 400-414676/37**  
**Matrix: Water**  
**Analysis Batch: 414676**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.76		mg/L		98	90 - 110
Fluoride	10.0	10.5		mg/L		105	90 - 110
Sulfate	10.0	10.1		mg/L		101	90 - 110

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-414676/38**  
**Matrix: Water**  
**Analysis Batch: 414676**

**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	10.5		mg/L		105	90 - 110	0	15
Sulfate	10.0	10.4		mg/L		104	90 - 110	3	15

**Lab Sample ID: 400-159844-21 MS**  
**Matrix: Water**  
**Analysis Batch: 414676**

**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	21		10.0	30.5		mg/L		98	80 - 120
Fluoride	0.20		10.0	11.2		mg/L		110	80 - 120
Sulfate	24		10.0	34.6		mg/L		110	80 - 120

**Lab Sample ID: 400-159844-21 MSD**  
**Matrix: Water**  
**Analysis Batch: 414676**

**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	21		10.0	30.7		mg/L		101	80 - 120	1	20
Fluoride	0.20		10.0	11.2		mg/L		110	80 - 120	0	20
Sulfate	24		10.0	35.1		mg/L		115	80 - 120	1	20

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

**Lab Sample ID: MB 400-414950/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 415116**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 414950**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.13		0.25	0.13	mg/L		10/11/18 10:25	10/11/18 22:30	5

**Lab Sample ID: LCS 400-414950/2-A**  
**Matrix: Water**  
**Analysis Batch: 415116**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 414950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	5.00	4.88		mg/L		98	80 - 120

**Lab Sample ID: LCS 400-414950/2-A**  
**Matrix: Water**  
**Analysis Batch: 415292**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 414950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0950		mg/L		95	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120

# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

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

**Lab Sample ID: 400-159826-J-1-C MS ^5**

**Matrix: Water**  
**Analysis Batch: 415116**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 414950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<0.021	^	0.100	0.0959	^	mg/L		96	75 - 125
Calcium	7.6		5.00	13.0		mg/L		108	75 - 125

**Lab Sample ID: 400-159826-J-1-D MSD ^5**

**Matrix: Water**  
**Analysis Batch: 415116**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 414950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	<0.021	^	0.100	0.103		mg/L		103	75 - 125	7	20
Calcium	7.6		5.00	12.6		mg/L		100	75 - 125	3	20

**Lab Sample ID: MB 400-415140/1-A ^5**

**Matrix: Water**  
**Analysis Batch: 415292**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 415140**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0265	J	0.050	0.021	mg/L		10/12/18 10:52	10/12/18 18:47	5
Calcium	<0.13		0.25	0.13	mg/L		10/12/18 10:52	10/12/18 18:47	5

**Lab Sample ID: LCS 400-415140/2-A**

**Matrix: Water**  
**Analysis Batch: 415292**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 415140**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	0.100	0.104		mg/L		104	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120

**Lab Sample ID: 400-159844-4 MS**

**Matrix: Water**  
**Analysis Batch: 415292**

**Client Sample ID: GWC-25**  
**Prep Type: Total Recoverable**  
**Prep Batch: 415140**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	0.023	J B	0.100	0.115		mg/L		93	75 - 125
Calcium	9.2		5.00	14.3		mg/L		101	75 - 125

**Lab Sample ID: 400-159844-4 MSD**

**Matrix: Water**  
**Analysis Batch: 415292**

**Client Sample ID: GWC-25**  
**Prep Type: Total Recoverable**  
**Prep Batch: 415140**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Boron	0.023	J B	0.100	0.113		mg/L		90	75 - 125	2	20
Calcium	9.2		5.00	14.4		mg/L		103	75 - 125	1	20



# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

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

**Lab Sample ID: MB 400-413497/1**  
**Matrix: Water**  
**Analysis Batch: 413497**

**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			09/29/18 14:50	1

**Lab Sample ID: LCS 400-413497/2**  
**Matrix: Water**  
**Analysis Batch: 413497**

**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	252		mg/L		86	78 - 122

**Lab Sample ID: 400-159844-6 DU**  
**Matrix: Water**  
**Analysis Batch: 413497**

**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	130		128		mg/L		0	5

**Lab Sample ID: MB 400-413500/1**  
**Matrix: Water**  
**Analysis Batch: 413500**

**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			09/29/18 15:51	1

**Lab Sample ID: LCS 400-413500/2**  
**Matrix: Water**  
**Analysis Batch: 413500**

**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	252		mg/L		86	78 - 122

**Lab Sample ID: 400-158986-B-31 DU**  
**Matrix: Water**  
**Analysis Batch: 413500**

**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 400-413549/1**  
**Matrix: Water**  
**Analysis Batch: 413549**

**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			09/30/18 16:18	1

**Lab Sample ID: LCS 400-413549/2**  
**Matrix: Water**  
**Analysis Batch: 413549**

**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

TestAmerica Pensacola



# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
SDG: Landfill

**Lab Sample ID: 400-159844-14 DU**  
**Matrix: Water**  
**Analysis Batch: 413549**

**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	110		110		mg/L		0	5

**Lab Sample ID: 490-160072-I-2 DU**  
**Matrix: Water**  
**Analysis Batch: 413549**

**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	250		260		mg/L		5	5

**Lab Sample ID: MB 400-413651/1**  
**Matrix: Water**  
**Analysis Batch: 413651**

**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			10/01/18 15:30	1

**Lab Sample ID: LCS 400-413651/2**  
**Matrix: Water**  
**Analysis Batch: 413651**

**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: 400-159844-1 DU**  
**Matrix: Water**  
**Analysis Batch: 413651**

**Client Sample ID: GWA-29**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	80		78.0		mg/L		3	5

**Lab Sample ID: MB 400-413725/1**  
**Matrix: Water**  
**Analysis Batch: 413725**

**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			10/02/18 11:34	1

**Lab Sample ID: LCS 400-413725/2**  
**Matrix: Water**  
**Analysis Batch: 413725**

**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	244		mg/L		83	78 - 122

**Lab Sample ID: 400-159791-C-1 DU**  
**Matrix: Water**  
**Analysis Batch: 413725**

**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	160		162		mg/L		4	5

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-159844-1  
 SDG: Landfill

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

**Lab Sample ID: 400-159844-17 DU**  
**Matrix: Water**  
**Analysis Batch: 413725**

**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	130		132		mg/L		0	5

**Lab Sample ID: MB 400-414174/1**  
**Matrix: Water**  
**Analysis Batch: 414174**

**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			10/04/18 17:11	1

**Lab Sample ID: LCS 400-414174/2**  
**Matrix: Water**  
**Analysis Batch: 414174**

**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: 400-159944-G-6 DU**  
**Matrix: Water**  
**Analysis Batch: 414174**

**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	190		196		mg/L		2	5

<b>Client Information</b>		Lab PM: Whitnire, Cheyenne R		Carrier Tracking No(s): All to TA-ATL		COC No:	
Client Contact: Joju Abraham		E-Mail: cheyenne.whitnire@testamericainc.com		Phone: (770) 594-5998		Page:	
Company: Southern Company		Project #: 40007709		PO #: SCS10347656		Job #:	
Address: PO BOX 2641 GSC8		Site: CCR - Plant Wansley - Landfill		Due Date Requested:		Preservation Codes:	
City: Birmingham		State, Zip: AL, 35291		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email: JAbraham@southernco.com		SSONW#:		Matrix (Hexane, Swab, On-site, BT-tissue, A-Air)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SC3 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)	
GWA-9		9-25-18		1120		Water	
GWA-4		9-25-18		1435		Water	
EB-1-9-25-18		9-25-18		1450		Water	
GWA-20-05-18 GWC-25		9-26-18		1754		Water	
GWA-1-09-25-18		9-25-18		1345		Water	
GWA-28-09-25-18		9-25-18		1215		Water	
GWA-8		9-26-18		1200		Water	
GWC-9		9-26-18		1325		Water	
GWC-26		9-27-18		1110		Water	
GWC-21		9-27-18		1105		Water	
GWC-27		9-27-18		1235		Water	
Possible Hazard Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		9-25-18		1120		Water	
Deliverable Requested: I, II, III, IV, Other (specify)		9-25-18		1435		Water	
Empty Kit Relinquished by:		9-25-18		1450		Water	
Relinquished by:		9-26-18		1754		Water	
Relinquished by:		9-25-18		1345		Water	
Relinquished by:		9-25-18		1215		Water	
Custody Seals Intact: Δ Yes Δ No		9-26-18		1200		Water	
Custody Seal No.:		9-27-18		1110		Water	
Custody Seal No.:		9-27-18		1105		Water	
Custody Seal No.:		9-27-18		1235		Water	





**Chain of Custody Record**

<b>Client Information</b>		Lab PM: <u>Whitire, Cheyenne R</u>		Carrier Tracking No(s):	
Client Contact: <u>Jojo Abraham</u>		E-Mail: <u>cheyenne.whitire@testamericainc.com</u>		COC No:	
Company: <u>Southern Company</u>		Phone: <u>(770) 594-5998</u>		Page:	
Address: <u>PO BOX 2641 GSC8</u>		Due Date Requested:		Job #:	
City: <u>Birmingham</u>		TAT Requested (days):		Preservation Codes:	
State, Zip: <u>AL, 35291</u>		PO #: <u>SCS10347656</u>		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:	
Email: <u>JAbraham@southernco.com</u>		WO #:		M - Hexane N - Nont O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project Name: <u>CCR - Plant Wansley - Landfill</u>		Project #: <u>40007709</u>		Total Number of containers	
Site: <u>Georgia</u>		SSOW#:		Special Instructions/Note:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, On-surface, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals App. III (EPA 6020/470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2640C)	Analysis Requested	Total Number of containers	Special Instructions/Note
GWC-11	9-27-18	1472	G	Water	N	N	N	N		2	APP III
GWC-18	9-28-18	1030	G	Water	N	N	N	N		2	
EB-7-9-28-18	9-28-18	1110	G	Water	N	N	N	N		2	
GWC-24	9-28-18	1130	G	Water	N	N	N	N		2	
GWC-12	9-28-18	1114	G	Water	N	N	N	N		2	
GWA-78	9-25-18	1215	G	Water	N	N	N	N			
GWA-1	9-25-18	1345	G	Water	N	N	N	N			
				Water							
				Water							
				Water							
				Water							

<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9-28-18/1440</u> Company: <u>ACC</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9-28-18/1440</u> Company: <u>ACC</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9-29-18 0920</u> Company: <u>STAFEN</u>	
Custody Seals Intact: <u>Yes</u>		Cooler Temperature(s) °C and Other Remarks: <u>0.00c IR-7</u>	

## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-159844-1

SDG Number: Landfill

**Login Number: 159844**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**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 4.6°C IR7 0.0°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	COC has GWA-9, label has GWA-29; matched by date & time. Per client it is 29.
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: 400-159844-1  
SDG: 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	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-18 *
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-16	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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

# TestAmerica

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: 400-160175-1

TestAmerica Sample Delivery Group: Landfill

Client Project/Site: CCR - Plant Wansley

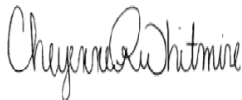
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Joju Abraham



Authorized for release by:

10/30/2018 4:57:18 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: 400-160175-1  
SDG: Landfill

**Job ID: 400-160175-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-160175-1

#### HPLC/IC

Method(s) 300.0: The continuing calibration verification (CCV) associated with batch 417215 recovered above the upper control limit for Fluoride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: GWC-14 (400-160175-9) and GWC-7 (400-160175-13). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The continuation calibration blank (CCB) for analytical batch 417351 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 method blank for preparation batch 416486 and analytical batch 416741 contained Lead 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) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 417090 and analytical batch 417478 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.

#### General Chemistry

Method(s) SM 2540C: The sample duplicate (DUP) precision for analytical batch 414386 was outside control limits. Sample non-homogeneity is suspected.

# Detection Summary

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## Client Sample ID: GWC-22

## Lab Sample ID: 400-160175-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		1.0	0.89	mg/L	1		300.0	Total/NA
Calcium	10		0.25	0.13	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-23

## Lab Sample ID: 400-160175-2

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
Calcium	3.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-35

## Lab Sample ID: 400-160175-3

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	2.8		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	2.1		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

## Client Sample ID: GWC-34

## Lab Sample ID: 400-160175-4

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	0.18	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	3.1		0.25	0.13	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-33

## Lab Sample ID: 400-160175-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		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	11		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: FB-3-10-2-18

## Lab Sample ID: 400-160175-6

No Detections.

## Client Sample ID: GWC-32

## Lab Sample ID: 400-160175-7

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	2.4		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	9.7		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: 400-160175-1  
SDG: Landfill

## Client Sample ID: GWC-32 (Continued)

## Lab Sample ID: 400-160175-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	7.7		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: DUP-2

## Lab Sample ID: 400-160175-8

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	10		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-14

## Lab Sample ID: 400-160175-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.083	J	0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	11		1.0	0.70	mg/L	1		300.0	Total/NA
Chloride - DL	74		2.0	1.8	mg/L	2		300.0	Total/NA
Boron	0.57		0.050	0.021	mg/L	5		6020	Total
Calcium	22		0.25	0.13	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: 400-160175-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		1.0	0.89	mg/L	1		300.0	Total/NA
Fluoride	0.10	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
Boron	0.030	J	0.050	0.021	mg/L	5		6020	Total
Calcium	8.0		0.25	0.13	mg/L	5		6020	Recoverable Total
Total Dissolved Solids	94		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: GWC-16

## Lab Sample ID: 400-160175-11

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
Calcium	7.0		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-2-10-1-18

## Lab Sample ID: 400-160175-12

No Detections.

## Client Sample ID: GWC-7

## Lab Sample ID: 400-160175-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		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: 400-160175-1  
SDG: Landfill

## Client Sample ID: GWC-7 (Continued)

## Lab Sample ID: 400-160175-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.25		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate - DL	60		2.0	1.4	mg/L	2		300.0	Total/NA
Calcium	52		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-13

## Lab Sample ID: 400-160175-14

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	0.13	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
Calcium	4.2		0.25	0.13	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-17

## Lab Sample ID: 400-160175-15

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
Calcium	8.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: DUP-3

## Lab Sample ID: 400-160175-16

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	2.6		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	4.0		0.25	0.13	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-5

## Lab Sample ID: 400-160175-17

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	0.13	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
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-31

## Lab Sample ID: 400-160175-18

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	1.7		0.20	0.082	mg/L	1		300.0	Total/NA
Sulfate	18		1.0	0.70	mg/L	1		300.0	Total/NA
Calcium	11		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: 400-160175-1  
SDG: Landfill

## Client Sample ID: GWC-31 (Continued)

Lab Sample ID: 400-160175-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	86		5.0	3.4	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: GWC-30

Lab Sample ID: 400-160175-19

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	0.13	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
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: DUP-4

Lab Sample ID: 400-160175-20

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	0.12	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
Calcium	31		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA

## Client Sample ID: EB-3-10-3-18

Lab Sample ID: 400-160175-21

No Detections.

## Client Sample ID: FB-4-10-3-18

Lab Sample ID: 400-160175-22

No Detections.

## Client Sample ID: EB-4-10-3-18

Lab Sample ID: 400-160175-23

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: 400-160175-1  
SDG: Landfill

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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

#### Protocol References:

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

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

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

#### Laboratory References:

TAL PEN = 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: 400-160175-1  
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-160175-1	GWC-22	Water	10/01/18 12:10	10/04/18 09:06
400-160175-2	GWC-23	Water	10/01/18 13:35	10/04/18 09:06
400-160175-3	GWC-35	Water	10/01/18 15:05	10/04/18 09:06
400-160175-4	GWC-34	Water	10/02/18 10:45	10/04/18 09:06
400-160175-5	GWC-33	Water	10/02/18 13:15	10/04/18 09:06
400-160175-6	FB-3-10-2-18	Water	10/02/18 14:10	10/04/18 09:06
400-160175-7	GWC-32	Water	10/02/18 15:20	10/04/18 09:06
400-160175-8	DUP-2	Water	10/01/18 00:00	10/05/18 08:46
400-160175-9	GWC-14	Water	10/01/18 13:12	10/05/18 08:46
400-160175-10	GWC-15	Water	10/01/18 14:23	10/05/18 08:46
400-160175-11	GWC-16	Water	10/01/18 15:21	10/05/18 08:46
400-160175-12	FB-2-10-1-18	Water	10/01/18 13:30	10/05/18 08:46
400-160175-13	GWC-7	Water	10/02/18 10:52	10/05/18 08:46
400-160175-14	GWC-13	Water	10/02/18 12:05	10/05/18 08:46
400-160175-15	GWC-17	Water	10/02/18 13:58	10/05/18 08:46
400-160175-16	DUP-3	Water	10/02/18 00:00	10/05/18 08:46
400-160175-17	GWC-5	Water	10/03/18 10:25	10/05/18 08:46
400-160175-18	GWC-31	Water	10/03/18 11:59	10/05/18 08:46
400-160175-19	GWC-30	Water	10/03/18 13:20	10/05/18 08:46
400-160175-20	DUP-4	Water	10/03/18 00:00	10/05/18 08:46
400-160175-21	EB-3-10-3-18	Water	10/03/18 11:00	10/05/18 08:46
400-160175-22	FB-4-10-3-18	Water	10/03/18 14:00	10/05/18 08:46
400-160175-23	EB-4-10-3-18	Water	10/03/18 14:30	10/05/18 08:46



# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

**Client Sample ID: GWC-22**  
**Date Collected: 10/01/18 12:10**  
**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-1**  
**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			10/27/18 21:07	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 21:07	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 21:07	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		10/22/18 09:23	10/22/18 17:39	5
Calcium	10		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 17:39	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			10/05/18 18:25	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-23**  
**Date Collected: 10/01/18 13:35**  
**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-2**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.9</b>		1.0	0.89	mg/L			10/27/18 21:30	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 21:30	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 21:30	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		10/22/18 09:23	10/22/18 17:44	5
<b>Calcium</b>	<b>3.6</b>		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 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			10/05/18 18:25	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-35**  
**Date Collected: 10/01/18 15:05**  
**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-3**  
**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			10/27/18 11:35	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 11:35	1
<b>Sulfate</b>	<b>2.8</b>		1.0	0.70	mg/L			10/27/18 11:35	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		10/22/18 09:23	10/22/18 17:48	5
<b>Calcium</b>	<b>2.1</b>		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 17:48	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			10/05/18 18:25	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-34**  
**Date Collected: 10/02/18 10:45**  
**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-4**  
**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			10/27/18 21:53	1
Fluoride	0.18	J	0.20	0.082	mg/L			10/27/18 21:53	1
Sulfate	1.4		1.0	0.70	mg/L			10/27/18 21:53	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		10/22/18 09:23	10/22/18 17:53	5
Calcium	3.1		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 17:53	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	98		5.0	3.4	mg/L			10/06/18 18:12	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-33**  
**Date Collected: 10/02/18 13:15**  
**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-5**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0	0.89	mg/L			10/27/18 23:01	1
Fluoride	2.1		0.20	0.082	mg/L			10/27/18 23:01	1
Sulfate	11		1.0	0.70	mg/L			10/27/18 23:01	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		10/22/18 09:23	10/22/18 17:57	5
Calcium	15		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 17:57	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		5.0	3.4	mg/L			10/06/18 18:12	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: FB-3-10-2-18**

**Lab Sample ID: 400-160175-6**

**Date Collected: 10/02/18 14:10**

**Matrix: Water**

**Date Received: 10/04/18 09:06**

**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			10/27/18 23:24	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 23:24	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 23:24	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		10/22/18 09:23	10/22/18 18:01	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 18:01	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			10/06/18 18:12	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-32**  
**Date Collected: 10/02/18 15:20**  
**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-7**  
**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			10/27/18 23:47	1
Fluoride	2.4		0.20	0.082	mg/L			10/27/18 23:47	1
Sulfate	9.7		1.0	0.70	mg/L			10/27/18 23:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/22/18 09:23	10/22/18 18:06	5
Calcium	7.7		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 18:06	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			10/06/18 18:12	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: 400-160175-1  
 SDG: Landfill

**Client Sample ID: DUP-2**

**Date Collected: 10/01/18 00:00**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-8**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>1.5</b>		1.0	0.89	mg/L			10/27/18 11:58	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 11:58	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 11:58	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		10/22/18 09:23	10/23/18 11:46	5
<b>Calcium</b>	<b>10</b>		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 11:46	5

**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			10/05/18 18:25	1



# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-14**  
**Date Collected: 10/01/18 13:12**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-9**  
**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.083	J	0.20	0.082	mg/L			10/27/18 13:07	1
Sulfate	11		1.0	0.70	mg/L			10/27/18 13:07	1

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74		2.0	1.8	mg/L			10/27/18 15:24	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.57		0.050	0.021	mg/L		10/22/18 09:23	10/23/18 11:50	5
Calcium	22		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 11:50	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	250		5.0	3.4	mg/L			10/05/18 18:25	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: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-15**  
**Date Collected: 10/01/18 14:23**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-10**  
**Matrix: Water**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.89	mg/L			10/28/18 00:10	1
Fluoride	0.10	J	0.20	0.082	mg/L			10/28/18 00:10	1
Sulfate	1.4		1.0	0.70	mg/L			10/28/18 00:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.030	J	0.050	0.021	mg/L		10/22/18 09:23	10/23/18 11:54	5
Calcium	8.0		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 11:54	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	94		5.0	3.4	mg/L			10/05/18 18:25	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-16**  
**Date Collected: 10/01/18 15:21**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-11**  
**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			10/28/18 00:33	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/18 00:33	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/18 00:33	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		10/22/18 09:23	10/23/18 11:59	5
<b>Calcium</b>	<b>7.0</b>		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 11:59	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			10/05/18 18:25	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: FB-2-10-1-18**

**Lab Sample ID: 400-160175-12**

**Date Collected: 10/01/18 13:30**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

**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			10/27/18 13:30	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 13:30	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 13:30	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		10/22/18 09:23	10/23/18 12:03	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:03	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			10/05/18 18:25	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-7**

**Date Collected: 10/02/18 10:52**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-13**

**Matrix: Water**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		1.0	0.89	mg/L			10/27/18 13:53	1
Fluoride	0.25		0.20	0.082	mg/L			10/27/18 13:53	1

**Method: 300.0 - Anions, Ion Chromatography - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	60		2.0	1.4	mg/L			10/27/18 15:47	2

**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		10/22/18 09:23	10/23/18 12:08	5
Calcium	52		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:08	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		5.0	3.4	mg/L			10/06/18 18:12	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-13**  
**Date Collected: 10/02/18 12:05**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-14**  
**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			10/28/18 01:41	1
Fluoride	0.13	J	0.20	0.082	mg/L			10/28/18 01:41	1
Sulfate	2.7		1.0	0.70	mg/L			10/28/18 01:41	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		10/22/18 09:23	10/23/18 12:12	5
Calcium	4.2		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:12	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			10/06/18 18:12	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: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-17**

**Date Collected: 10/02/18 13:58**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-15**

**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			10/28/18 02:04	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/18 02:04	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/18 02:04	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		10/22/18 09:23	10/23/18 12:17	5
<b>Calcium</b>	<b>8.2</b>		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:17	5

## 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			10/06/18 18:12	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: DUP-3**

**Date Collected: 10/02/18 00:00**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-16**

**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			10/28/18 02:27	1
Fluoride	0.12	J	0.20	0.082	mg/L			10/28/18 02:27	1
Sulfate	2.6		1.0	0.70	mg/L			10/28/18 02:27	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		10/22/18 09:23	10/23/18 12:21	5
Calcium	4.0		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:21	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		5.0	3.4	mg/L			10/05/18 18:25	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: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-5**  
**Date Collected: 10/03/18 10:25**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-17**  
**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			10/28/18 03:35	1
Fluoride	0.13	J	0.20	0.082	mg/L			10/28/18 03:35	1
Sulfate	29		1.0	0.70	mg/L			10/28/18 03:35	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		10/22/18 09:23	10/23/18 12:26	5
Calcium	32		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:26	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	230		5.0	3.4	mg/L			10/09/18 12:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-31**  
**Date Collected: 10/03/18 11:59**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-18**  
**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			10/28/18 03:58	1
Fluoride	1.7		0.20	0.082	mg/L			10/28/18 03:58	1
Sulfate	18		1.0	0.70	mg/L			10/28/18 03:58	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		10/22/18 09:23	10/23/18 12:48	5
Calcium	11		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:48	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	86		5.0	3.4	mg/L			10/09/18 17:44	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: GWC-30**  
**Date Collected: 10/03/18 13:20**  
**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-19**  
**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			10/28/18 04:21	1
Fluoride	0.13	J	0.20	0.082	mg/L			10/28/18 04:21	1
Sulfate	1.2		1.0	0.70	mg/L			10/28/18 04:21	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		10/22/18 09:23	10/23/18 12:53	5
Calcium	3.3		0.25	0.13	mg/L		10/22/18 09:23	10/23/18 12:53	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			10/09/18 12:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: DUP-4**

**Date Collected: 10/03/18 00:00**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-20**

**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			10/28/18 04:44	1
Fluoride	0.12	J	0.20	0.082	mg/L			10/28/18 04:44	1
Sulfate	29		1.0	0.70	mg/L			10/28/18 04:44	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		10/22/18 16:59	10/23/18 16:33	5
Calcium	31		0.25	0.13	mg/L		10/22/18 16:59	10/23/18 16:33	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			10/06/18 18:12	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: 400-160175-1  
 SDG: Landfill

**Client Sample ID: EB-3-10-3-18**

**Lab Sample ID: 400-160175-21**

**Date Collected: 10/03/18 11:00**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/18 05:07	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/18 05:07	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/18 05:07	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		10/22/18 16:59	10/23/18 17:13	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 16:59	10/23/18 17:13	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			10/09/18 12:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: FB-4-10-3-18**

**Lab Sample ID: 400-160175-22**

**Date Collected: 10/03/18 14:00**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/18 05:29	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/18 05:29	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/18 05:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/22/18 16:59	10/23/18 17:17	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 16:59	10/23/18 17:17	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			10/09/18 12:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Client Sample ID: EB-4-10-3-18**

**Lab Sample ID: 400-160175-23**

**Date Collected: 10/03/18 14:30**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/18 08:55	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/18 08:55	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/18 08:55	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		10/22/18 16:59	10/23/18 17:22	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 16:59	10/23/18 17:22	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			10/06/18 18:12	1

# Definitions/Glossary

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

TestAmerica Job ID: 400-160175-1  
SDG: 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.

### General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control 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: 400-160175-1  
SDG: Landfill

## Client Sample ID: GWC-22

Date Collected: 10/01/18 12:10

Date Received: 10/04/18 09:06

## Lab Sample ID: 400-160175-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/27/18 21:07	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416542	10/22/18 17:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

## Client Sample ID: GWC-23

Date Collected: 10/01/18 13:35

Date Received: 10/04/18 09:06

## Lab Sample ID: 400-160175-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/27/18 21:30	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416542	10/22/18 17:44	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

## Client Sample ID: GWC-35

Date Collected: 10/01/18 15:05

Date Received: 10/04/18 09:06

## Lab Sample ID: 400-160175-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417215	10/27/18 11:35	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416542	10/22/18 17:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

## Client Sample ID: GWC-34

Date Collected: 10/02/18 10:45

Date Received: 10/04/18 09:06

## Lab Sample ID: 400-160175-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/27/18 21:53	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416542	10/22/18 17:53	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

## Client Sample ID: GWC-33

Date Collected: 10/02/18 13:15

Date Received: 10/04/18 09:06

## Lab Sample ID: 400-160175-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/27/18 23:01	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

**Client Sample ID: GWC-33**

**Date Collected: 10/02/18 13:15**

**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	416542	10/22/18 17:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

**Client Sample ID: FB-3-10-2-18**

**Date Collected: 10/02/18 14:10**

**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/27/18 23:24	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416542	10/22/18 18:01	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

**Client Sample ID: GWC-32**

**Date Collected: 10/02/18 15:20**

**Date Received: 10/04/18 09:06**

**Lab Sample ID: 400-160175-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/27/18 23:47	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416542	10/22/18 18:06	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

**Client Sample ID: DUP-2**

**Date Collected: 10/01/18 00:00**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417215	10/27/18 11:58	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 11:46	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

**Client Sample ID: GWC-14**

**Date Collected: 10/01/18 13:12**

**Date Received: 10/05/18 08:46**

**Lab Sample ID: 400-160175-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417215	10/27/18 13:07	BAW	TAL PEN
Total/NA	Analysis	300.0	DL	2	417215	10/27/18 15:24	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 11:50	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

**Client Sample ID: GWC-14**

**Lab Sample ID: 400-160175-9**

Date Collected: 10/01/18 13:12

Matrix: Water

Date Received: 10/05/18 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

**Client Sample ID: GWC-15**

**Lab Sample ID: 400-160175-10**

Date Collected: 10/01/18 14:23

Matrix: Water

Date Received: 10/05/18 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 00:10	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 11:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

**Client Sample ID: GWC-16**

**Lab Sample ID: 400-160175-11**

Date Collected: 10/01/18 15:21

Matrix: Water

Date Received: 10/05/18 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 00:33	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 11:59	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

**Client Sample ID: FB-2-10-1-18**

**Lab Sample ID: 400-160175-12**

Date Collected: 10/01/18 13:30

Matrix: Water

Date Received: 10/05/18 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417215	10/27/18 13:30	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

**Client Sample ID: GWC-7**

**Lab Sample ID: 400-160175-13**

Date Collected: 10/02/18 10:52

Matrix: Water

Date Received: 10/05/18 08:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417215	10/27/18 13:53	BAW	TAL PEN
Total/NA	Analysis	300.0	DL	2	417215	10/27/18 15:47	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

**Client Sample ID: GWC-13**

**Lab Sample ID: 400-160175-14**

**Date Collected: 10/02/18 12:05**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 01:41	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:12	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

**Client Sample ID: GWC-17**

**Lab Sample ID: 400-160175-15**

**Date Collected: 10/02/18 13:58**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 02:04	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:17	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

**Client Sample ID: DUP-3**

**Lab Sample ID: 400-160175-16**

**Date Collected: 10/02/18 00:00**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 02:27	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:21	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414346	10/05/18 18:25	DEK	TAL PEN

**Client Sample ID: GWC-5**

**Lab Sample ID: 400-160175-17**

**Date Collected: 10/03/18 10:25**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 03:35	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:26	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414715	10/09/18 12:50	DEK	TAL PEN

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-160175-18**

**Date Collected: 10/03/18 11:59**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 03:58	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

**Client Sample ID: GWC-31**

**Lab Sample ID: 400-160175-18**

**Date Collected: 10/03/18 11:59**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414797	10/09/18 17:44	DEK	TAL PEN

**Client Sample ID: GWC-30**

**Lab Sample ID: 400-160175-19**

**Date Collected: 10/03/18 13:20**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 04:21	BAW	TAL PEN
Total Recoverable	Prep	3005A			416367	10/22/18 09:23	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 12:53	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414715	10/09/18 12:50	DEK	TAL PEN

**Client Sample ID: DUP-4**

**Lab Sample ID: 400-160175-20**

**Date Collected: 10/03/18 00:00**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 04:44	BAW	TAL PEN
Total Recoverable	Prep	3005A			416486	10/22/18 16:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 16:33	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	TAL PEN

**Client Sample ID: EB-3-10-3-18**

**Lab Sample ID: 400-160175-21**

**Date Collected: 10/03/18 11:00**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 05:07	BAW	TAL PEN
Total Recoverable	Prep	3005A			416486	10/22/18 16:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 17:13	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414715	10/09/18 12:50	DEK	TAL PEN

**Client Sample ID: FB-4-10-3-18**

**Lab Sample ID: 400-160175-22**

**Date Collected: 10/03/18 14:00**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417351	10/28/18 05:29	BAW	TAL PEN
Total Recoverable	Prep	3005A			416486	10/22/18 16:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 17:17	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414715	10/09/18 12:50	DEK	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

**Client Sample ID: EB-4-10-3-18**

**Lab Sample ID: 400-160175-23**

**Date Collected: 10/03/18 14:30**

**Matrix: Water**

**Date Received: 10/05/18 08:46**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	417376	10/28/18 08:55	BAW	TAL PEN
Total Recoverable	Prep	3005A			416486	10/22/18 16:59	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	416741	10/23/18 17:22	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	414386	10/06/18 18:12	DEK	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: 400-160175-1  
SDG: Landfill

## HPLC/IC

### Analysis Batch: 417215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-3	GWC-35	Total/NA	Water	300.0	
400-160175-8	DUP-2	Total/NA	Water	300.0	
400-160175-9	GWC-14	Total/NA	Water	300.0	
400-160175-9 - DL	GWC-14	Total/NA	Water	300.0	
400-160175-12	FB-2-10-1-18	Total/NA	Water	300.0	
400-160175-13	GWC-7	Total/NA	Water	300.0	
400-160175-13 - DL	GWC-7	Total/NA	Water	300.0	
MB 400-417215/36	Method Blank	Total/NA	Water	300.0	
LCS 400-417215/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417215/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160645-B-4 MS	Matrix Spike	Total/NA	Water	300.0	
400-160645-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 417351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-1	GWC-22	Total/NA	Water	300.0	
400-160175-2	GWC-23	Total/NA	Water	300.0	
400-160175-4	GWC-34	Total/NA	Water	300.0	
400-160175-5	GWC-33	Total/NA	Water	300.0	
400-160175-6	FB-3-10-2-18	Total/NA	Water	300.0	
400-160175-7	GWC-32	Total/NA	Water	300.0	
400-160175-10	GWC-15	Total/NA	Water	300.0	
400-160175-11	GWC-16	Total/NA	Water	300.0	
400-160175-14	GWC-13	Total/NA	Water	300.0	
400-160175-15	GWC-17	Total/NA	Water	300.0	
400-160175-16	DUP-3	Total/NA	Water	300.0	
400-160175-17	GWC-5	Total/NA	Water	300.0	
400-160175-18	GWC-31	Total/NA	Water	300.0	
400-160175-19	GWC-30	Total/NA	Water	300.0	
400-160175-20	DUP-4	Total/NA	Water	300.0	
400-160175-21	EB-3-10-3-18	Total/NA	Water	300.0	
400-160175-22	FB-4-10-3-18	Total/NA	Water	300.0	
MB 400-417351/4	Method Blank	Total/NA	Water	300.0	
LCS 400-417351/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417351/6	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160172-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
400-160172-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 417376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-23	EB-4-10-3-18	Total/NA	Water	300.0	
MB 400-417376/36	Method Blank	Total/NA	Water	300.0	
LCS 400-417376/37	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-417376/38	Lab Control Sample Dup	Total/NA	Water	300.0	
400-160172-B-9 MS	Matrix Spike	Total/NA	Water	300.0	
400-160172-B-9 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	



# QC Association Summary

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## Metals

### Prep Batch: 416367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-1	GWC-22	Total Recoverable	Water	3005A	
400-160175-2	GWC-23	Total Recoverable	Water	3005A	
400-160175-3	GWC-35	Total Recoverable	Water	3005A	
400-160175-4	GWC-34	Total Recoverable	Water	3005A	
400-160175-5	GWC-33	Total Recoverable	Water	3005A	
400-160175-6	FB-3-10-2-18	Total Recoverable	Water	3005A	
400-160175-7	GWC-32	Total Recoverable	Water	3005A	
400-160175-8	DUP-2	Total Recoverable	Water	3005A	
400-160175-9	GWC-14	Total Recoverable	Water	3005A	
400-160175-10	GWC-15	Total Recoverable	Water	3005A	
400-160175-11	GWC-16	Total Recoverable	Water	3005A	
400-160175-12	FB-2-10-1-18	Total Recoverable	Water	3005A	
400-160175-13	GWC-7	Total Recoverable	Water	3005A	
400-160175-14	GWC-13	Total Recoverable	Water	3005A	
400-160175-15	GWC-17	Total Recoverable	Water	3005A	
400-160175-16	DUP-3	Total Recoverable	Water	3005A	
400-160175-17	GWC-5	Total Recoverable	Water	3005A	
400-160175-18	GWC-31	Total Recoverable	Water	3005A	
400-160175-19	GWC-30	Total Recoverable	Water	3005A	
MB 400-416367/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-416367/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-160536-E-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-160536-E-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

### Prep Batch: 416486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-20	DUP-4	Total Recoverable	Water	3005A	
400-160175-21	EB-3-10-3-18	Total Recoverable	Water	3005A	
400-160175-22	FB-4-10-3-18	Total Recoverable	Water	3005A	
400-160175-23	EB-4-10-3-18	Total Recoverable	Water	3005A	
MB 400-416486/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-416486/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-160175-20 MS	DUP-4	Total Recoverable	Water	3005A	
400-160175-20 MSD	DUP-4	Total Recoverable	Water	3005A	

### Analysis Batch: 416542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-1	GWC-22	Total Recoverable	Water	6020	416367
400-160175-2	GWC-23	Total Recoverable	Water	6020	416367
400-160175-3	GWC-35	Total Recoverable	Water	6020	416367
400-160175-4	GWC-34	Total Recoverable	Water	6020	416367
400-160175-5	GWC-33	Total Recoverable	Water	6020	416367
400-160175-6	FB-3-10-2-18	Total Recoverable	Water	6020	416367
400-160175-7	GWC-32	Total Recoverable	Water	6020	416367
MB 400-416367/1-A ^5	Method Blank	Total Recoverable	Water	6020	416367
LCS 400-416367/2-A	Lab Control Sample	Total Recoverable	Water	6020	416367
400-160536-E-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	416367
400-160536-E-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	416367



# QC Association Summary

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## Metals (Continued)

### Analysis Batch: 416741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-8	DUP-2	Total Recoverable	Water	6020	416367
400-160175-9	GWC-14	Total Recoverable	Water	6020	416367
400-160175-10	GWC-15	Total Recoverable	Water	6020	416367
400-160175-11	GWC-16	Total Recoverable	Water	6020	416367
400-160175-12	FB-2-10-1-18	Total Recoverable	Water	6020	416367
400-160175-13	GWC-7	Total Recoverable	Water	6020	416367
400-160175-14	GWC-13	Total Recoverable	Water	6020	416367
400-160175-15	GWC-17	Total Recoverable	Water	6020	416367
400-160175-16	DUP-3	Total Recoverable	Water	6020	416367
400-160175-17	GWC-5	Total Recoverable	Water	6020	416367
400-160175-18	GWC-31	Total Recoverable	Water	6020	416367
400-160175-19	GWC-30	Total Recoverable	Water	6020	416367
400-160175-20	DUP-4	Total Recoverable	Water	6020	416486
400-160175-21	EB-3-10-3-18	Total Recoverable	Water	6020	416486
400-160175-22	FB-4-10-3-18	Total Recoverable	Water	6020	416486
400-160175-23	EB-4-10-3-18	Total Recoverable	Water	6020	416486
MB 400-416486/1-A ^5	Method Blank	Total Recoverable	Water	6020	416486
LCS 400-416486/2-A	Lab Control Sample	Total Recoverable	Water	6020	416486
400-160175-20 MS	DUP-4	Total Recoverable	Water	6020	416486
400-160175-20 MSD	DUP-4	Total Recoverable	Water	6020	416486

## General Chemistry

### Analysis Batch: 414346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-1	GWC-22	Total/NA	Water	SM 2540C	
400-160175-2	GWC-23	Total/NA	Water	SM 2540C	
400-160175-3	GWC-35	Total/NA	Water	SM 2540C	
400-160175-8	DUP-2	Total/NA	Water	SM 2540C	
400-160175-9	GWC-14	Total/NA	Water	SM 2540C	
400-160175-10	GWC-15	Total/NA	Water	SM 2540C	
400-160175-11	GWC-16	Total/NA	Water	SM 2540C	
400-160175-12	FB-2-10-1-18	Total/NA	Water	SM 2540C	
400-160175-16	DUP-3	Total/NA	Water	SM 2540C	
MB 400-414346/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-414346/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159951-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-160114-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 414386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-4	GWC-34	Total/NA	Water	SM 2540C	
400-160175-5	GWC-33	Total/NA	Water	SM 2540C	
400-160175-6	FB-3-10-2-18	Total/NA	Water	SM 2540C	
400-160175-7	GWC-32	Total/NA	Water	SM 2540C	
400-160175-13	GWC-7	Total/NA	Water	SM 2540C	
400-160175-14	GWC-13	Total/NA	Water	SM 2540C	
400-160175-15	GWC-17	Total/NA	Water	SM 2540C	
400-160175-20	DUP-4	Total/NA	Water	SM 2540C	
400-160175-23	EB-4-10-3-18	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## General Chemistry (Continued)

### Analysis Batch: 414386 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-414386/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-414386/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-160175-14 DU	GWC-13	Total/NA	Water	SM 2540C	

### Analysis Batch: 414715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-17	GWC-5	Total/NA	Water	SM 2540C	
400-160175-19	GWC-30	Total/NA	Water	SM 2540C	
400-160175-21	EB-3-10-3-18	Total/NA	Water	SM 2540C	
400-160175-22	FB-4-10-3-18	Total/NA	Water	SM 2540C	
MB 400-414715/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-414715/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-159951-A-18 DU	Duplicate	Total/NA	Water	SM 2540C	
400-159951-A-20 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 414797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160175-18	GWC-31	Total/NA	Water	SM 2540C	
MB 400-414797/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-414797/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-160175-18 DU	GWC-31	Total/NA	Water	SM 2540C	

# QC Sample Results

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 400-417215/36**  
**Matrix: Water**  
**Analysis Batch: 417215**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/27/18 05:53	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 05:53	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 05:53	1

**Lab Sample ID: LCS 400-417215/37**  
**Matrix: Water**  
**Analysis Batch: 417215**

**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	10.8		mg/L		108	90 - 110
Sulfate	10.0	10.9		mg/L		109	90 - 110

**Lab Sample ID: LCSD 400-417215/38**  
**Matrix: Water**  
**Analysis Batch: 417215**

**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	10.6		mg/L		106	90 - 110	2	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

**Lab Sample ID: 400-160645-B-4 MS**  
**Matrix: Water**  
**Analysis Batch: 417215**

**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	78		10.0	84.3	E 4	mg/L		65	80 - 120
Fluoride			10.0	10.9		mg/L			
Sulfate	25		10.0	35.8		mg/L		108	80 - 120

**Lab Sample ID: 400-160645-B-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 417215**

**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	78		10.0	84.5	E 4	mg/L		67	80 - 120	0	20
Fluoride			10.0	10.8		mg/L					
Sulfate	25		10.0	35.8		mg/L		109	80 - 120	0	20

**Lab Sample ID: MB 400-417351/4**  
**Matrix: Water**  
**Analysis Batch: 417351**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/27/18 18:27	1
Fluoride	<0.082		0.20	0.082	mg/L			10/27/18 18:27	1
Sulfate	<0.70		1.0	0.70	mg/L			10/27/18 18:27	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 400-417351/5**  
**Matrix: Water**  
**Analysis Batch: 417351**

**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	10.3		mg/L		103	90 - 110
Sulfate	10.0	10.9		mg/L		109	90 - 110

**Lab Sample ID: LCSD 400-417351/6**  
**Matrix: Water**  
**Analysis Batch: 417351**

**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	10.3		mg/L		103	90 - 110	0	15
Sulfate	10.0	10.8		mg/L		108	90 - 110	1	15

**Lab Sample ID: 400-160172-A-6 MS**  
**Matrix: Water**  
**Analysis Batch: 417351**

**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	1.6		10.0	11.6		mg/L		100	80 - 120
Fluoride	<0.082		10.0	10.3		mg/L		103	80 - 120
Sulfate	0.81	J	10.0	11.7		mg/L		109	80 - 120

**Lab Sample ID: 400-160172-A-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 417351**

**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	1.6		10.0	11.8		mg/L		102	80 - 120	2	20
Fluoride	<0.082		10.0	10.6		mg/L		106	80 - 120	2	20
Sulfate	0.81	J	10.0	11.9		mg/L		111	80 - 120	1	20

**Lab Sample ID: MB 400-417376/36**  
**Matrix: Water**  
**Analysis Batch: 417376**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.89		1.0	0.89	mg/L			10/28/18 06:38	1
Fluoride	<0.082		0.20	0.082	mg/L			10/28/18 06:38	1
Sulfate	<0.70		1.0	0.70	mg/L			10/28/18 06:38	1

**Lab Sample ID: LCS 400-417376/37**  
**Matrix: Water**  
**Analysis Batch: 417376**

**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	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.6		mg/L		106	90 - 110

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 400-417376/38**  
**Matrix: Water**  
**Analysis Batch: 417376**

**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	10.2		mg/L		102	90 - 110	0	15
Sulfate	10.0	10.7		mg/L		107	90 - 110	1	15

**Lab Sample ID: 400-160172-B-9 MS**  
**Matrix: Water**  
**Analysis Batch: 417376**

**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	1.9		10.0	11.9		mg/L		99	80 - 120
Fluoride	<0.082		10.0	10.1		mg/L		101	80 - 120
Sulfate	<0.70		10.0	11.0		mg/L		110	80 - 120

**Lab Sample ID: 400-160172-B-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 417376**

**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	1.9		10.0	12.2		mg/L		103	80 - 120	3	20
Fluoride	<0.082		10.0	10.4		mg/L		104	80 - 120	3	20
Sulfate	<0.70		10.0	11.4		mg/L		114	80 - 120	4	20

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

**Lab Sample ID: MB 400-416367/1-A ^5**  
**Matrix: Water**  
**Analysis Batch: 416542**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 416367**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		10/22/18 09:23	10/22/18 16:46	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 09:23	10/22/18 16:46	5

**Lab Sample ID: LCS 400-416367/2-A**  
**Matrix: Water**  
**Analysis Batch: 416542**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 416367**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.104		mg/L		104	80 - 120
Calcium	5.00	5.12		mg/L		102	80 - 120

**Lab Sample ID: 400-160536-E-1-B MS ^5**  
**Matrix: Water**  
**Analysis Batch: 416542**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 416367**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.063		0.100	0.173		mg/L		110	75 - 125
Calcium	1.2		5.00	6.42		mg/L		105	75 - 125

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

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

**Lab Sample ID: 400-160536-E-1-C MSD ^5**

**Matrix: Water**  
**Analysis Batch: 416542**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**  
**Prep Batch: 416367**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Boron	0.063		0.100	0.169		mg/L		106	75 - 125	2	20
Calcium	1.2		5.00	6.40		mg/L		105	75 - 125	0	20

**Lab Sample ID: MB 400-416486/1-A ^5**

**Matrix: Water**  
**Analysis Batch: 416741**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**  
**Prep Batch: 416486**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.021		0.050	0.021	mg/L		10/22/18 16:59	10/23/18 16:19	5
Calcium	<0.13		0.25	0.13	mg/L		10/22/18 16:59	10/23/18 16:19	5

**Lab Sample ID: LCS 400-416486/2-A**

**Matrix: Water**  
**Analysis Batch: 416741**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**  
**Prep Batch: 416486**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Boron	0.100	0.0952		mg/L		95	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120

**Lab Sample ID: 400-160175-20 MS**

**Matrix: Water**  
**Analysis Batch: 416741**

**Client Sample ID: DUP-4**

**Prep Type: Total Recoverable**  
**Prep Batch: 416486**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Boron	<0.021		0.100	0.103		mg/L		103	75 - 125
Calcium	31		5.00	37.3	4	mg/L		118	75 - 125

**Lab Sample ID: 400-160175-20 MSD**

**Matrix: Water**  
**Analysis Batch: 416741**

**Client Sample ID: DUP-4**

**Prep Type: Total Recoverable**  
**Prep Batch: 416486**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Boron	<0.021		0.100	0.0981		mg/L		98	75 - 125	5	20
Calcium	31		5.00	36.6	4	mg/L		104	75 - 125	2	20

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

**Lab Sample ID: MB 400-414346/1**

**Matrix: Water**  
**Analysis Batch: 414346**

**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			10/05/18 18:25	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160175-1  
SDG: Landfill

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

**Lab Sample ID: LCS 400-414346/2**  
**Matrix: Water**  
**Analysis Batch: 414346**

**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: 400-159951-A-4 DU**  
**Matrix: Water**  
**Analysis Batch: 414346**

**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	150		150		mg/L		1	5

**Lab Sample ID: 400-160114-A-2 DU**  
**Matrix: Water**  
**Analysis Batch: 414346**

**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	690		688		mg/L		0.3	5

**Lab Sample ID: MB 400-414386/1**  
**Matrix: Water**  
**Analysis Batch: 414386**

**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			10/06/18 18:12	1

**Lab Sample ID: LCS 400-414386/2**  
**Matrix: Water**  
**Analysis Batch: 414386**

**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

**Lab Sample ID: 400-160175-14 DU**  
**Matrix: Water**  
**Analysis Batch: 414386**

**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	72		84.0	F3	mg/L		15	5

**Lab Sample ID: MB 400-414715/1**  
**Matrix: Water**  
**Analysis Batch: 414715**

**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			10/09/18 12:50	1

**Lab Sample ID: LCS 400-414715/2**  
**Matrix: Water**  
**Analysis Batch: 414715**

**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

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160175-1  
 SDG: Landfill

**Lab Sample ID: 400-159951-A-18 DU**  
**Matrix: Water**  
**Analysis Batch: 414715**

**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	620		618		mg/L		0.3	5

**Lab Sample ID: 400-159951-A-20 DU**  
**Matrix: Water**  
**Analysis Batch: 414715**

**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		120		mg/L		0	5

**Lab Sample ID: MB 400-414797/1**  
**Matrix: Water**  
**Analysis Batch: 414797**

**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			10/09/18 17:44	1

**Lab Sample ID: LCS 400-414797/2**  
**Matrix: Water**  
**Analysis Batch: 414797**

**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: 400-160175-18 DU**  
**Matrix: Water**  
**Analysis Batch: 414797**

**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	86		90.0		mg/L		5	5



Client Information		Lab PM		Carrier Tracking No(s)		COC No						
Southern Company		Whitmore, Cheyenne R				400-77277-27703.1						
Address PO BOX 2641 GSC8		E-Mail cheyenne.whitmore@testamericainc.com				Page Page 1 of 5						
City Birmingham		Phone (770) 594-5998				Job #						
State, Zip AL, 35291		Due Date Requested:				Preservation Codes:						
Phone		TAT Requested (days):				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
Email JAbraham@southerncco.com		PO # SCS10347656				M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)						
Project Name CCR - Plant Wansley - LAMBLELL		WO #				Total Number of containers						
Site Georgia		Project # 40007709				Special Instructions/Note:						
		SSOW#										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, W-water, S-solid, O-wastewater, ST-TISSUE, AAU)	Field Filtered Sample (Yes or No)	Perform MSMSD (Yes or No)	6020 - Boron & Calcium	2540C, 300, ORGM, 28D	Meths App # (6020/7470)	11 E, 504, TDS (300.0 sm/54cc)	400-160175 COC	QR Code
GWC-22	10-1-18	1210	G	Water	N	N						
GWC-23	10-1-18	1335	G	Water	N	N						
GWC-35	10-1-18	1505	G	Water	N	N						
GWC-34	10-2-18	1645	G	Water	N	N						
GWC-33	10-2-18	1315	G	Water	N	N						
FB-3-10-2-18	10-2-18	1410	G	Water	N	N						
GWC-32	10-2-18	1520	G	Water	N	N						
DUP-2	10-1-18		G	Water	N	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/Time: 10-3-18 13:30 Company: JCA

Received by: \_\_\_\_\_ Date/Time: 10-4-18 09:06 Company: JCA-PEN

Relinquished by: \_\_\_\_\_ Date/Time: 10-4-18 09:06 Company: JCA-PEN

Cooler Temperature(s) °C and Other Remarks: 1.5°C, 2.1°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:



**Chain of Custody Record**

<b>Client Information</b> Client Contact: Joju Abraham Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone:		Lab P/N: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: Page: Job #:	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40007709 SOW#:		<b>Analysis Requested</b>			
Sample Identification Sample Date Sample Time Sample Type (G=comp, G=grab) Matrix (Water, Sewage, Stormwater, Other)		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) Metals App III (EPA 820.710) Cl, F, SO <sub>4</sub> & TDS EPA 300.0 & SM 2540C			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special Instructions/Note: APP III			
Deliverable Requested: I, II, III, IV, Other (specify)		Total Number of Containers			
Empty Kit Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Relinquished by:		Special Instructions/QC Requirements:			
Relinquished by:		Date/Time: 10-3-18 / 13:30 Date/Time: 10-3-18 / 13:30 Date/Time: 10-3-18 / 08:46			
Relinquished by:		Date/Time: 10-3-18 / 16:00 Date/Time: 10-3-18 / 16:00 Date/Time: 10-3-18 / 16:00			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 3.5°C, 1.5°C, 2.1°C, 18.7			







## Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-160175-1

SDG Number: Landfill

**Login Number: 160175**

**List Number: 1**

**Creator: Conrady, Hank W**

**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	634012
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3°C 1.5°C 2.1°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: 400-160175-1  
SDG: 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	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-16	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

Product Name: Low-Flow System

Date: 2018-09-25 13:47:49

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name CCR - Plant Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peri Pump  
Tubing Type poly  
Tubing Diameter 0.17 in  
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID GWA-1  
Well diameter 2 in  
Well Total Depth 49.90 ft  
Screen Length 10 ft  
Depth to Water 23.80 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.3087077 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 24 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	13:20:06	1200.01	22.83	5.29	24.19	2.63	25.00	3.78	35.01
Last 5	13:25:06	1500.00	22.75	5.27	24.24	4.94	25.40	3.82	37.11
Last 5	13:35:06	2099.98	22.43	5.28	24.06	3.83	25.80	3.83	39.20
Last 5	13:40:06	2399.97	22.48	5.27	24.28	3.17	25.80	3.85	40.30
Last 5	13:45:06	2699.97	22.48	5.27	24.25	2.66	25.80	3.93	41.42
Variance 0			-0.32	0.01	-0.18			0.01	2.09
Variance 1			0.05	-0.01	0.22			0.02	1.10
Variance 2			0.00	0.00	-0.03			0.08	1.12

Notes

Cloudy, sample Time- 1345

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 11:47:13

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID GWA-2  
Well diameter 2 in  
Well Total Depth 60.10 ft  
Screen Length 10 ft  
Depth to Water 44.63 ft

Pumping Information:

Final Pumping Rate 245 mL/min  
Total System Volume 0.9691639 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	11:26:26	600.04	19.58	5.56	64.93	3.44	44.80	6.54	71.55
Last 5	11:31:26	900.03	19.35	5.55	65.28	3.67	44.80	6.55	70.82
Last 5	11:36:26	1200.03	19.11	5.53	65.65	3.21	44.80	6.56	71.88
Last 5	11:41:26	1500.03	19.09	5.53	65.91	3.43	44.80	6.56	72.74
Last 5	11:46:29	1803.03	19.22	5.52	66.04	2.43	44.80	6.51	74.10
Variance 0			-0.24	-0.02	0.37			0.01	1.06
Variance 1			-0.02	-0.00	0.26			-0.00	0.86
Variance 2			0.13	-0.01	0.13			-0.05	1.36

Notes

Sampled at 11:46. Cloudy, 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 13:25:03

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 31 ft

Pump placement from TOC 30 ft

Well Information:

Well ID GWA-3  
Well diameter 2 in  
Well Total Depth 31.20 ft  
Screen Length 10 ft  
Depth to Water 25.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.6892347 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 66 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:03:12	900.03	18.21	5.64	290.76	1.68	28.60	6.82	88.87
Last 5	13:08:12	1200.03	18.42	5.75	293.42	1.52	29.20	6.44	90.17
Last 5	13:13:12	1500.03	18.47	5.82	303.76	1.03	29.80	6.22	90.51
Last 5	13:18:12	1800.03	18.64	6.02	343.72	0.75	30.40	5.46	90.56
Last 5	13:23:12	2100.02	20.02	6.23	329.80	0.08	31.00	5.68	88.24
Variance 0			0.04	0.07	10.34			-0.22	0.34
Variance 1			0.17	0.20	39.96			-0.77	0.05
Variance 2			1.39	0.21	-13.92			0.23	-2.32

Notes

Purged dry. Not sampled.

Grab Samples



Product Name: Low-Flow System

Date: 2018-09-25 14:38:23

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 45 ft

Pump placement from TOC 30.60 ft

Well Information:

Well ID GWA-4  
Well diameter 2 in  
Well Total Depth 40.60 ft  
Screen Length 10 ft  
Depth to Water 25.45 ft

Pumping Information:

Final Pumping Rate 180 mL/min  
Total System Volume 0.590854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	14:15:35	6625.02	21.50	6.21	238.06	11.00	25.70	0.33	23.34
Last 5	14:20:40	6930.02	21.53	6.21	237.06	9.30	25.70	0.32	24.55
Last 5	14:25:42	7232.02	21.77	6.21	237.81	7.61	25.70	0.32	25.05
Last 5	14:30:50	7540.03	21.77	6.21	237.61	5.96	25.70	0.35	26.02
Last 5	14:35:51	7841.02	21.54	6.21	235.90	4.92	25.70	0.37	27.09
Variance 0			0.25	0.00	0.75			-0.00	0.50
Variance 1			-0.00	0.00	-0.20			0.03	0.97
Variance 2			-0.23	-0.01	-1.70			0.01	1.07

Notes

Sampled at 1435 on 9-25-18. 85F partly cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 12:16:21

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name CCR - Plant Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peri Pump  
Tubing Type poly  
Tubing Diameter 0.17 in  
Tubing Length 45 ft

Pump placement from TOC 40 ft

Well Information:

Well ID GWA-28  
Well diameter 2 in  
Well Total Depth 45.80 ft  
Screen Length 10 ft  
Depth to Water 25.62 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 0.290854 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 22.7 in  
Total Volume Pumped 3.3 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%	+/- 100		+/- 10%	+/- 100
Last 5	11:55:03	2099.98	22.12	5.96	72.21	3.33	27.40	4.68	45.61
Last 5	12:00:03	2399.97	22.19	5.97	71.22	3.01	27.50	4.83	43.75
Last 5	12:05:03	2699.96	22.26	5.98	71.34	2.66	27.50	4.94	41.44
Last 5	12:10:03	2999.96	22.97	6.01	70.90	3.13	27.50	4.97	38.67
Last 5	12:15:03	3299.95	23.04	5.94	69.54	3.29	27.50	5.07	42.06
Variance 0			0.08	0.01	0.11			0.10	-2.31
Variance 1			0.71	0.03	-0.44			0.03	-2.77
Variance 2			0.07	-0.07	-1.36			0.11	3.39

Notes

Cloudy, sample Time- 12:15

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 11:21:42

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 62 ft

Pump placement from TOC 52.10 ft

Well Information:

Well ID GWA-29  
Well diameter 2 in  
Well Total Depth 57.10 ft  
Screen Length 10 ft  
Depth to Water 46.71 ft

Pumping Information:

Final Pumping Rate 190 mL/min  
Total System Volume 0.6667323 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.1 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	11:00:08	900.03	19.76	5.89	76.93	11.00	46.70	5.41	65.60
Last 5	11:05:08	1200.03	19.62	5.90	77.77	7.00	46.80	5.46	71.59
Last 5	11:10:09	1501.03	19.85	5.91	78.95	5.87	46.80	5.40	76.76
Last 5	11:15:09	1801.03	19.71	5.91	80.18	6.26	46.80	5.30	82.93
Last 5	11:20:09	2101.02	19.49	5.92	81.03	4.96	46.80	5.23	89.32
Variance 0			0.23	0.01	1.18			-0.06	5.16
Variance 1			-0.15	0.01	1.23			-0.10	6.17
Variance 2			-0.21	0.00	0.85			-0.07	6.40

Notes

Sampled at 1120 on 9-25-18. 78F

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-03 10:26:39

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 41 ft

Pump placement from TOC 31.75 ft

Well Information:

Well ID GWC-5  
Well diameter 2 in  
Well Total Depth 36.75 ft  
Screen Length 10 ft  
Depth to Water 18.76 ft

Pumping Information:

Final Pumping Rate 115 mL/min  
Total System Volume 0.2730004 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	10:05:04	900.03	20.66	6.37	275.59	1.62	20.40	1.41	175.41
Last 5	10:10:04	1200.03	20.63	6.34	273.84	1.33	20.50	1.19	183.45
Last 5	10:15:07	1503.03	20.84	6.34	273.90	1.65	20.60	1.81	187.95
Last 5	10:20:07	1803.04	21.15	6.34	273.64	1.06	20.70	1.59	204.16
Last 5	10:25:07	2103.06	21.20	6.33	275.23	1.11	20.70	1.64	214.10
Variance 0			0.21	0.00	0.06			0.62	4.51
Variance 1			0.31	-0.01	-0.26			-0.22	16.20
Variance 2			0.05	-0.01	1.59			0.06	9.95

Notes

Sampled at 1025 on 10-3-18. 75F sunny.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-25 15:40:06

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 31 ft

Pump placement from TOC 25 ft

Well Information:

Well ID GWC-6  
Well diameter 2 in  
Well Total Depth 30.67 ft  
Screen Length 10 ft  
Depth to Water 19.56 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3892347 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.9 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:19:29	2402.01	20.34	5.86	198.64	0.45	19.80	0.24	56.26
Last 5	15:24:29	2702.02	20.38	5.87	200.83	0.42	19.80	0.21	57.72
Last 5	15:29:29	3002.02	20.47	5.86	203.02	0.45	19.80	0.18	59.07
Last 5	15:34:29	3302.02	20.19	5.87	205.36	0.38	19.80	0.14	59.94
Last 5	15:39:29	3602.01	20.38	5.87	207.37	0.32	19.80	0.13	60.60
Variance 0			0.09	-0.00	2.19			-0.03	1.35
Variance 1			-0.28	0.01	2.34			-0.03	0.87
Variance 2			0.19	-0.00	2.01			-0.01	0.65

Notes

Sampled at 15:39. Cloudy 80's

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 10:52:52

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR- Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 26 ft

Pump placement from TOC 21 ft

Well Information:

Well ID GWC-7  
Well diameter 2 in  
Well Total Depth 26.20 ft  
Screen Length 10 ft  
Depth to Water 7.75 ft

Pumping Information:

Final Pumping Rate 80 mL/min  
Total System Volume 0.340971 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 40 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:32:13	1200.03	21.00	6.31	636.23	0.72	10.70	0.21	66.47
Last 5	10:37:13	1500.04	21.36	6.31	634.50	0.59	11.00	0.21	65.02
Last 5	10:42:13	1800.03	21.85	6.31	632.39	0.70	11.10	0.23	64.84
Last 5	10:47:13	2100.03	22.07	6.31	627.75	0.57	11.10	0.26	64.92
Last 5	10:52:16	2403.01	22.25	6.31	624.78	0.41	11.10	0.24	65.69
Variance 0			0.49	-0.01	-2.11			0.02	-0.19
Variance 1			0.23	0.01	-4.64			0.03	0.08
Variance 2			0.18	0.00	-2.97			-0.02	0.77

Notes

Collected at 10:52. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 12:01:23

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name CCR - Plant Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peri Pump  
Tubing Type poly  
Tubing Diameter 0.17 in  
Tubing Length 20 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 10.23 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.1792685 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.3 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	11:40:08	600.02	22.17	5.91	379.70	2.01	10.40	0.15	50.83
Last 5	11:45:08	900.01	22.39	5.92	378.03	1.74	10.40	0.13	47.13
Last 5	11:50:08	1200.00	22.39	5.92	378.11	1.95	10.50	0.13	44.60
Last 5	11:55:08	1500.00	22.30	5.91	374.18	1.62	10.50	0.15	43.24
Last 5	12:00:08	1799.98	22.17	5.90	371.13	1.29	10.50	0.19	42.49
Variance 0			0.00	0.00	0.08			0.00	-2.53
Variance 1			-0.09	-0.01	-3.93			0.03	-1.36
Variance 2			-0.13	-0.01	-3.05			0.03	-0.75

Notes

Cloudy, sample Time:1200

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 13:29:57

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name CCR - Plant Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peri Pump  
Tubing Type poly  
Tubing Diameter 0.17 in  
Tubing Length 19 ft

Pump placement from TOC 14 ft

Well Information:

Well ID GWC-9  
Well diameter 2 in  
Well Total Depth 19.40 ft  
Screen Length 10 ft  
Depth to Water 8.83 ft

Pumping Information:

Final Pumping Rate 220 mL/min  
Total System Volume 0.1748051 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.4 in  
Total Volume Pumped 6.6 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	13:05:23	600.02	23.17	5.75	338.53	3.98	8.20	0.12	41.50
Last 5	13:10:23	900.01	23.49	5.72	321.52	3.66	8.30	0.11	40.10
Last 5	13:15:23	1199.99	23.69	5.71	315.42	3.19	8.30	0.10	39.42
Last 5	13:20:23	1500.00	23.69	5.70	310.09	4.21	8.50	0.10	38.65
Last 5	13:25:23	1799.99	23.40	5.71	305.07	4.72	8.50	0.10	38.33
Variance 0			0.20	-0.01	-6.11			-0.01	-0.68
Variance 1			0.00	-0.01	-5.33			-0.00	-0.76
Variance 2			-0.29	0.00	-5.02			-0.00	-0.32

Notes

Sunny, sample Time: 1325

Grab Samples



Product Name: Low-Flow System

Date: 2018-09-26 14:57:52

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name CCR - Plant Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 501336  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type Peri Pump  
Tubing Type poly  
Tubing Diameter 0.17 in  
Tubing Length 21 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 11.81 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.1837319 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	14:35:43	1799.98	22.75	5.74	253.63	6.20	18.80	0.36	39.40
Last 5	14:40:43	2099.99	22.93	5.78	188.04	4.22	19.50	2.48	40.29
Last 5	14:45:44	2400.98	24.44	5.78	243.64	25.00	20.20	0.60	37.98
Last 5	14:50:44	2700.96	23.51	5.78	243.81	18.00	20.70	0.15	37.01
Last 5	14:55:44	3000.96	23.69	5.81	258.42	9.53	21.50	0.21	37.54
Variance 0			1.51	0.00	55.60			-1.88	-2.31
Variance 1			-0.92	-0.00	0.17			-0.45	-0.97
Variance 2			0.18	0.03	14.61			0.06	0.53

Notes

Cloudy, well purged dry, allow for overnight recharge.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 10:51:54

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-plant Walsley Landfill  
Site Name Walsley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 21 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 9.82 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.2927074 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 76 in  
Total Volume Pumped 8.25 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:30:36	1500.04	21.09	5.49	191.34	22.30	15.30	3.43	68.29
Last 5	10:35:36	1800.03	21.45	5.47	190.06	16.90	15.70	3.31	69.56
Last 5	10:40:36	2100.06	21.58	5.47	188.75	14.10	15.80	3.08	68.64
Last 5	10:45:36	2400.03	21.63	5.48	198.57	10.80	16.10	2.80	67.05
Last 5	10:50:36	2700.02	21.70	5.50	211.29	8.98	16.30	2.83	67.45
Variance 0			0.13	-0.00	-1.31			-0.23	-0.92
Variance 1			0.04	0.01	9.81			-0.28	-1.59
Variance 2			0.08	0.02	12.73			0.03	0.40

Notes

Purged dry 9/26/18. Sample collected 9/27/18 at 10:50. Cloudy 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 14:19:10

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 19 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 5.54 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.2734019 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 in  
Total Volume Pumped 34 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%	+/- 10		+/- 0.3	+/- 10
Last 5	13:57:44	9302.96	24.05	5.97	262.49	8.20	5.70	0.05	-75.62
Last 5	14:02:45	9603.96	23.94	5.97	249.03	7.95	5.70	0.05	-74.42
Last 5	14:07:45	9903.96	23.99	5.97	258.96	7.76	5.70	0.05	-76.03
Last 5	14:12:46	10204.95	24.37	5.96	252.77	7.97	5.70	0.05	-75.57
Last 5	14:17:47	10505.95	24.36	5.97	260.35	7.79	5.70	0.05	-76.40
Variance 0			0.04	0.01	9.93			0.00	-1.61
Variance 1			0.38	-0.01	-6.19			-0.00	0.46
Variance 2			-0.01	0.00	7.58			0.00	-0.83

Notes

Rain 80'. Collects at 14:22.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-28 11:16:39

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 40 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 26.66 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.4761093 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 39 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:54:38	3603.00	19.62	7.27	303.73	2.44	29.90	0.88	-52.33
Last 5	10:59:38	3903.01	19.58	7.27	304.45	2.34	29.90	0.67	-53.48
Last 5	11:04:38	4203.01	19.63	7.28	303.87	2.89	29.90	0.63	-50.41
Last 5	11:09:39	4504.00	19.56	7.29	302.83	2.11	29.90	0.55	-49.52
Last 5	11:14:39	4804.00	19.71	7.30	305.13	1.50	29.90	0.54	-46.76
Variance 0			0.05	0.02	-0.59			-0.04	3.07
Variance 1			-0.06	0.00	-1.04			-0.08	0.89
Variance 2			0.15	0.01	2.29			-0.01	2.76

Notes

Collected at 11:14. Cloudy 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 12:06:27

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 90 ft

Pump placement from TOC 85 ft

Well Information:

Well ID GWC-13  
Well diameter 2 in  
Well Total Depth 90.40 ft  
Screen Length 10 ft  
Depth to Water 6.21 ft

Pumping Information:

Final Pumping Rate 260 mL/min  
Total System Volume 0.9587458 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 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%	+/- 10		+/- 0.3	+/- 10
Last 5	11:45:59	600.04	20.92	7.05	58.84	0.45	6.40	3.92	67.71
Last 5	11:50:59	900.03	20.88	6.99	58.89	0.44	6.40	3.83	68.19
Last 5	11:56:01	1202.03	20.73	6.95	58.83	0.42	6.40	3.74	68.43
Last 5	12:01:01	1502.03	20.69	6.94	58.76	0.45	6.40	3.61	67.75
Last 5	12:06:01	1802.02	20.45	6.91	58.79	0.52	6.40	3.47	67.99
Variance 0			-0.15	-0.04	-0.07			-0.10	0.24
Variance 1			-0.04	-0.02	-0.06			-0.13	-0.68
Variance 2			-0.24	-0.03	0.03			-0.14	0.24

Notes

Collected at 12:05. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 13:12:57

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 25 ft

Pump placement from TOC 20 ft

Well Information:

Well ID GWC-14  
Well diameter 2 in  
Well Total Depth 24.60 ft  
Screen Length 10 ft  
Depth to Water 9.52 ft

Pumping Information:

Final Pumping Rate 210 mL/min  
Total System Volume 0.3313183 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 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%	+/- 10		+/- 0.3	+/- 10
Last 5	12:52:10	1500.04	22.39	5.62	369.13	8.98	9.60	0.10	65.72
Last 5	12:57:10	1800.03	22.46	5.60	365.80	7.73	9.60	0.09	68.03
Last 5	13:02:11	2101.04	22.43	5.59	363.32	4.77	9.60	0.09	69.96
Last 5	13:07:11	2401.04	22.39	5.59	364.24	4.54	9.60	0.08	71.05
Last 5	13:12:11	2701.02	22.39	5.59	366.98	4.71	9.60	0.08	73.39
Variance 0			-0.03	-0.01	-2.49			-0.00	1.93
Variance 1			-0.04	-0.00	0.93			-0.01	1.10
Variance 2			-0.00	-0.01	2.74			0.00	2.33

Notes

Collected at 13:12. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 14:24:32

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 50 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 6.27 ft

Pumping Information:

Final Pumping Rate 180 mL/min  
Total System Volume 0.5726365 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 7.25 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	14:03:45	1200.04	21.23	6.53	94.03	1.56	6.50	3.27	73.79
Last 5	14:08:45	1500.03	21.54	6.53	94.14	1.32	6.50	3.27	73.88
Last 5	14:13:46	1801.02	21.18	6.53	93.95	0.93	6.50	3.26	74.66
Last 5	14:18:46	2101.02	21.20	6.52	95.92	1.06	6.50	3.21	75.49
Last 5	14:23:47	2402.03	21.10	6.50	96.67	1.04	6.50	3.17	76.29
Variance 0			-0.37	0.00	-0.19			-0.01	0.78
Variance 1			0.03	-0.01	1.97			-0.05	0.83
Variance 2			-0.11	-0.01	0.74			-0.04	0.80

Notes

Collected at 14:23. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 15:21:58

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 27 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 10.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3506238 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 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%	+/- 10		+/- 0.3	+/- 10
Last 5	15:01:21	600.05	20.69	6.14	91.95	1.07	10.30	3.36	73.53
Last 5	15:06:21	900.04	20.67	6.13	92.07	1.03	10.30	3.43	75.48
Last 5	15:11:21	1200.04	20.78	6.13	91.94	0.74	10.30	3.40	78.34
Last 5	15:16:21	1500.04	20.75	6.13	92.20	0.72	10.30	3.57	82.15
Last 5	15:21:21	1800.04	20.88	6.12	92.21	0.68	10.30	3.64	87.20
Variance 0			0.11	-0.01	-0.13			-0.04	2.85
Variance 1			-0.03	-0.00	0.26			0.17	3.81
Variance 2			0.12	-0.00	0.01			0.07	5.05

Notes

Collected at 15:21. Sunny 80's.

Grab Samples



Product Name: Low-Flow System

Date: 2018-10-02 13:59:22

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 53 ft

Pump placement from TOC 48 ft

Well Information:

Well ID GWC-17  
Well diameter 2 in  
Well Total Depth 53.30 ft  
Screen Length 10 ft  
Depth to Water 21.00 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.6015947 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:38:41	3301.02	22.21	6.16	104.33	0.49	22.40	2.32	98.28
Last 5	13:43:41	3601.01	22.21	6.16	104.43	0.66	22.40	2.52	98.90
Last 5	13:48:41	3901.02	22.30	6.16	104.40	1.16	22.40	2.56	99.42
Last 5	13:53:41	4201.01	21.94	6.16	103.91	0.99	22.40	2.56	101.09
Last 5	13:58:42	4502.01	22.11	6.16	104.00	0.69	22.40	2.60	101.28
Variance 0			0.09	0.00	-0.03			0.04	0.52
Variance 1			-0.36	-0.00	-0.49			0.01	1.66
Variance 2			0.17	-0.00	0.09			0.03	0.20

Notes

Collected at 13:58. Sunny 80's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-28 10:33:05

Project Information:

Operator Name H Auld  
Company Name Atlantic Coast Consulting  
Project Name Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic Pump  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 30 ft

Pump placement from TOC 24.8 ft

Well Information:

Well ID GWC-18  
Well diameter 2 in  
Well Total Depth 29.77 ft  
Screen Length 10 ft  
Depth to Water 14.07 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.3795819 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	+/- 0.1	+/- 3%	+/- 10		+/- 10%	+/- 0
Last 5	10:10:01	600.02	18.70	5.72	92.24	2.09	14.15	0.84	146.05
Last 5	10:15:01	900.01	18.30	5.75	92.20	1.92	14.15	0.66	144.72
Last 5	10:20:01	1200.06	18.26	5.76	92.11	1.80	14.15	0.63	146.45
Last 5	10:25:01	1500.05	18.26	5.78	92.03	1.82	14.15	0.61	142.94
Last 5	10:30:01	1800.05	18.21	5.77	91.83	1.50	14.15	0.60	141.52
Variance 0			-0.04	0.02	-0.09			-0.03	1.72
Variance 1			-0.01	0.01	-0.08			-0.02	-3.51
Variance 2			-0.05	-0.00	-0.20			-0.01	-1.42

Notes

Sampled at 1030 on 9-28-18. Cloudy 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 13:25:55

Project Information:

Operator Name H Auld  
Company Name Atlantic Coast Consulting  
Project Name Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump  
Tubing Type Poly  
Tubing Diameter .25 in  
Tubing Length 38 ft

Pump placement from TOC 22 ft

Well Information:

Well ID GWC-19  
Well diameter 2 in  
Well Total Depth 37.5 ft  
Screen Length 10 ft  
Depth to Water 8.43 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4568038 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 16.4 in  
Total Volume Pumped 5.4 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			+/- 0	+/- 0.1	+/- 3%	+/- 10		+/- 10%	+/- 0
Last 5	13:04:21	600.03	20.30	5.83	78.75	11.80	9.65	0.40	178.00
Last 5	13:09:21	900.02	20.52	5.82	76.53	9.27	9.70	0.29	176.61
Last 5	13:14:27	1206.02	20.17	5.82	75.65	4.78	9.70	0.28	173.13
Last 5	13:19:27	1506.02	19.88	5.82	74.98	4.34	9.70	0.22	170.46
Last 5	13:24:27	1806.02	19.91	5.82	74.84	3.99	9.80	0.22	167.13
Variance 0			-0.34	-0.00	-0.88			-0.01	-3.48
Variance 1			-0.29	-0.00	-0.68			-0.06	-2.67
Variance 2			0.03	-0.00	-0.14			0.00	-3.33

Notes

Sampled at 1325 on 9-27-18.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 12:27:56

Project Information:

Operator Name H Auld  
Company Name Atlantic Coast Consulting  
Project Name Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump  
Tubing Type Poly  
Tubing Diameter 0.25 in  
Tubing Length 71 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 6.75 ft

Pumping Information:

Final Pumping Rate 220 mL/min  
Total System Volume 0.775344 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3 in  
Total Volume Pumped 6.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 0
Last 5	11:56:03	600.02	21.61	6.37	114.87	1.27	6.90	4.39	132.10
Last 5	12:01:03	900.02	21.32	6.32	113.91	1.51	6.90	3.80	133.07
Last 5	12:06:03	1200.01	21.12	6.30	113.12	1.74	6.90	3.43	134.71
Last 5	12:11:05	1502.00	20.84	6.30	112.71	1.92	7.00	3.30	135.91
Last 5	12:16:08	1805.00	20.72	6.29	112.79	2.00	7.00	3.24	136.43
Variance 0			-0.20	-0.02	-0.79			-0.37	1.65
Variance 1			-0.28	-0.00	-0.41			-0.14	1.20
Variance 2			-0.12	-0.01	0.08			-0.06	0.51

Notes

Sampled at 1215 at 9-27-18. Cloudy 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 11:07:29

Project Information:

Operator Name H Auld  
Company Name Atlantic Coast Consulting  
Project Name Wansley  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump  
Tubing Type Poly  
Tubing Diameter .25 in  
Tubing Length 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID GWC-21  
Well diameter 2 in  
Well Total Depth 38.3 ft  
Screen Length 10 ft  
Depth to Water 16.80 ft

Pumping Information:

Final Pumping Rate 110 mL/min  
Total System Volume 0.4664565 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19.2 in  
Total Volume Pumped 2.8 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	+/- 0.1	+/- 3%	+/- 10		+/- 0.1%	+/- 10
Last 5	10:44:11	300.08	20.33	5.27	67.18	3.35	17.70	0.33	101.50
Last 5	10:49:11	600.02	20.75	5.29	63.61	2.64	17.90	0.29	99.87
Last 5	10:54:11	900.01	20.82	5.32	61.68	2.35	18.00	0.29	98.54
Last 5	10:59:17	1206.00	20.24	5.36	62.22	2.72	18.20	0.19	106.20
Last 5	11:04:19	1508.00	20.08	5.38	61.79	3.58	18.40	0.18	105.32
Variance 0			0.07	0.03	-1.93			-0.00	-1.33
Variance 1			-0.58	0.04	0.54			-0.10	7.66
Variance 2			-0.15	0.02	-0.42			-0.01	-0.88

Notes

Sampled at 1105 on 9-27-18. Cloudy 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 11:53:43

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369550  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder Pro QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 82 ft

Pump placement from TOC 72.09 ft

Well Information:

Well ID GWC-22  
Well diameter 2 in  
Well Total Depth 77.59 ft  
Screen Length 10 ft  
Depth to Water 27.04 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.7560008 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 10%
Last 5	11:26:49	300.09	18.99	7.50	116.23	2.80	27.90	3.94	112.26
Last 5	11:31:49	600.03	18.93	7.25	116.45	2.77	27.90	3.95	110.40
Last 5	11:36:49	899.93	18.90	7.08	116.51	2.42	27.90	3.98	110.72
Last 5	11:41:49	1199.92	19.04	6.96	116.21	3.11	27.90	3.93	109.28
Last 5	11:46:50	1500.92	19.02	6.89	116.00	1.93	17.90	3.92	108.84
Variance 0			-0.03	-0.17	0.06			0.02	0.32
Variance 1			0.13	-0.12	-0.30			-0.05	-1.44
Variance 2			-0.01	-0.07	-0.22			-0.01	-0.45

Notes

App failed.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 12:13:23

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369550  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder Pro QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 82 ft

Pump placement from TOC 72.09 ft

Well Information:

Well ID GWC-22  
Well diameter 2 in  
Well Total Depth 77.59 ft  
Screen Length 10 ft  
Depth to Water 27.04 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.7560008 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 10%
Last 5	12:00:37	300.03	18.89	6.74	116.15	1.61	27.90	3.91	111.25
Last 5	12:05:37	600.02	18.83	6.73	116.18	1.17	27.90	3.90	108.32
Last 5	12:10:37	900.02	18.77	6.70	116.25	1.15	27.90	3.92	108.84
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.06	-0.01	0.03			-0.01	-2.94
Variance 2			-0.06	-0.03	0.07			0.02	0.52

Notes

Started at 1100, app failed. Continued purge.  
Began purge at 1100. App crashed at 55 mins into purge. Resumed. Sampled at 1210 on 10-1-18. 81F partly cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 13:36:27

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369550  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder Pro QED  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 72 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 37.70 ft

Pumping Information:

Final Pumping Rate 125 mL/min  
Total System Volume 0.7113665 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8 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%	+/- 100		+/- 10%	+/- 10%
Last 5	13:15:03	600.02	20.17	6.09	45.49	1.91	38.50	5.33	130.76
Last 5	13:20:03	900.45	20.02	6.04	45.38	1.85	38.50	5.32	130.18
Last 5	13:25:04	1201.45	19.97	6.00	45.19	1.67	38.50	5.40	131.39
Last 5	13:30:09	1506.45	19.91	5.98	45.16	1.44	38.50	5.41	134.83
Last 5	13:35:09	1806.45	19.84	5.96	45.09	1.05	38.50	5.43	130.82
Variance 0			-0.05	-0.04	-0.19			0.08	1.21
Variance 1			-0.06	-0.03	-0.03			0.02	3.45
Variance 2			-0.07	-0.01	-0.08			0.02	-4.02

Notes

Sampled at 10-1-18 at 1335. 84F partly cloudy.

Grab Samples



Product Name: Low-Flow System

Date: 2018-09-28 11:26:01

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 56 ft

Pump placement from TOC 47 ft

Well Information:

Well ID GWC-24  
Well diameter 2 in  
Well Total Depth 51.1 ft  
Screen Length 10 ft  
Depth to Water 44.04 ft

Pumping Information:

Final Pumping Rate 160 mL/min  
Total System Volume 0.6399516 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 43 in  
Total Volume Pumped 15.2 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	11:05:09	3909.06	24.01	5.28	37.97	1.24	47.30	6.74	157.82
Last 5	11:10:09	4209.03	24.31	5.28	37.97	1.22	47.30	6.70	160.98
Last 5	11:15:11	4511.03	24.27	5.28	37.91	3.46	47.30	6.94	162.39
Last 5	11:20:11	4811.03	24.33	5.29	37.89	4.17	47.30	6.73	167.87
Last 5	11:25:12	5112.03	24.42	5.28	37.94	3.51	47.30	6.71	166.23
Variance 0			-0.04	0.00	-0.05			0.24	1.41
Variance 1			0.06	0.00	-0.02			-0.21	5.48
Variance 2			0.09	-0.00	0.05			-0.02	-1.64

Notes

Sampled at 1130 on 9-28-18. 7F cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 12:55:56

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 62 ft

Pump placement from TOC 55.48 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 115 mL/min  
Total System Volume 0.6667323 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 51 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	12:34:22	6914.03	20.21	6.42	108.89	4.59	53.00	6.35	124.15
Last 5	12:39:22	7214.02	20.30	6.42	107.88	4.87	53.20	6.35	123.47
Last 5	12:44:22	7514.02	20.34	6.40	108.16	4.28	53.30	6.24	124.58
Last 5	12:49:28	7820.02	20.34	6.39	107.66	3.44	53.30	6.08	124.55
Last 5	12:54:28	8120.02	20.32	6.40	108.28	3.28	53.30	5.88	125.10
Variance 0			0.04	-0.02	0.28			-0.12	1.11
Variance 1			0.00	-0.01	-0.51			-0.16	-0.03
Variance 2			-0.02	0.01	0.62			-0.19	0.55

Notes

Sample at 1254 on 9/26/18. 82F sunny.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 14:05:02

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 54.96 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.96 ft  
Screen Length 10 ft  
Depth to Water 30.81 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.6801225 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	13:50:04	300.04	22.62	5.72	49.92	74.00	30.30	8.12	138.59
Last 5	13:55:04	600.03	21.53	5.73	49.55	59.00	32.20	8.77	140.37
Last 5	14:00:04	900.03	21.11	5.73	49.43	53.00	32.30	8.61	135.12
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-1.09	0.01	-0.37			0.66	1.79
Variance 2			-0.42	0.01	-0.12			-0.16	-5.25

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-26 15:02:58

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 54.96 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.96 ft  
Screen Length 10 ft  
Depth to Water 30.81 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.6801225 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	14:40:04	1801.03	20.21	5.73	48.28	49.00	33.20	8.23	121.24
Last 5	14:45:05	2102.02	20.03	5.73	48.27	48.00	33.40	8.25	123.78
Last 5	14:50:05	2402.03	19.93	5.72	48.39	43.00	33.50	8.04	124.37
Last 5	14:55:05	2702.03	19.91	5.72	48.39	39.00	33.50	8.08	124.71
Last 5	15:00:05	3002.03	19.77	5.72	48.45	32.00	33.50	8.04	124.83
Variance 0			-0.10	-0.00	0.11			-0.21	0.59
Variance 1			-0.02	-0.00	0.00			0.05	0.34
Variance 2			-0.14	-0.00	0.05			-0.04	0.12

Notes

Inclement weather. Suspended purge.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 11:11:54

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 65 ft

Pump placement from TOC 54.96 ft

Well Information:

Well ID GWC-26  
Well diameter 2 in  
Well Total Depth 59.96 ft  
Screen Length 10 ft  
Depth to Water 30.81 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.6801225 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18 in  
Total Volume Pumped 20.5 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	10:50:03	2103.03	19.96	5.70	50.76	8.27	32.20	7.56	98.50
Last 5	10:55:03	2403.03	19.94	5.68	50.23	7.96	32.20	7.53	100.32
Last 5	11:00:03	2703.03	19.93	5.69	49.75	6.56	32.20	7.60	101.25
Last 5	11:05:03	3003.03	20.09	5.68	49.57	5.71	32.20	7.54	102.24
Last 5	11:10:04	3304.03	20.15	5.68	49.15	4.60	32.20	7.38	103.45
Variance 0			-0.01	0.01	-0.48			0.07	0.93
Variance 1			0.15	-0.01	-0.18			-0.06	0.99
Variance 2			0.06	-0.00	-0.42			-0.16	1.21

Notes

Suspended purging on 9-26-18 @ 1502 due to weather. Purged 82 minuets and 16L.  
Sampled at 1110 on 9-27-18. 73F cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-27 12:36:58

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 75 ft

Pump placement from TOC 65.8 ft

Well Information:

Well ID GWC-27  
Well diameter 2 in  
Well Total Depth 70.8 ft  
Screen Length 10 ft  
Depth to Water 59.11 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.7247567 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	12:15:00	900.03	19.10	5.51	41.71	8.30	48.50	3.30	121.26
Last 5	12:20:00	1200.03	19.94	5.60	50.21	5.31	48.60	3.23	113.24
Last 5	12:25:00	1500.03	19.77	5.70	59.68	2.97	48.60	3.12	103.59
Last 5	12:30:06	1806.03	19.86	5.69	60.18	2.31	48.60	3.10	102.93
Last 5	12:35:06	2106.03	19.78	5.70	59.63	1.89	48.60	3.09	102.62
Variance 0			-0.17	0.10	9.47			-0.11	-9.64
Variance 1			0.09	-0.01	0.50			-0.02	-0.67
Variance 2			-0.08	0.01	-0.55			-0.01	-0.31

Notes

Sampled at 1235 on 9/27/18. 73F cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-03 13:25:07

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type peri  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 51 ft  
  
Pump placement from TOC 41.9 ft

Well Information:

Well ID GWC-30  
Well diameter 2 in  
Well Total Depth 46.90 ft  
Screen Length 10 ft  
Depth to Water 27.91 ft

Pumping Information:

Final Pumping Rate 125 mL/min  
Total System Volume 0.3176346 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7 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%	+/- 100		+/- 10%	+/- 100
Last 5	13:00:40	900.03	26.97	6.56	49.15	4.79	28.60	5.09	337.75
Last 5	13:05:45	1205.04	24.45	6.47	46.36	4.21	28.60	0.77	338.49
Last 5	13:10:45	1505.04	22.08	6.36	48.29	3.62	28.60	0.56	325.99
Last 5	13:15:45	1805.03	22.53	6.37	48.25	3.05	28.60	0.71	310.42
Last 5	13:20:47	2107.04	22.40	6.38	48.29	3.23	28.60	1.03	294.15
Variance 0			-2.37	-0.10	1.93			-0.21	-12.50
Variance 1			0.46	0.01	-0.04			0.15	-15.57
Variance 2			-0.13	0.00	0.04			0.32	-16.27

Notes

Sampled at 1320 on 10-3-18. 84F sunny.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 15:16:05

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name CCR-Plant Wansley Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 36 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 34.11 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.7374983 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 33 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	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	14:57:10	300.05	23.10	6.07	140.28	3.39	35.20	6.12	104.41
Last 5	15:02:10	600.04	22.16	6.07	138.80	4.27	36.00	6.08	107.03
Last 5	15:07:10	900.04	23.78	6.06	138.92	3.82	36.30	6.07	106.46
Last 5	15:12:10	1200.04	26.79	6.05	140.44	4.21	36.50	6.02	106.74
Last 5									
Variance 0			-0.94	0.00	-1.48			-0.04	2.63
Variance 1			1.61	-0.02	0.11			-0.01	-0.57
Variance 2			3.01	-0.01	1.52			-0.05	0.28

Notes

Well purged dry. Not sampled.

Grab Samples



Product Name: Low-Flow System

Date: 2018-10-03 12:19:17

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type QED Bladder Pro  
Tubing Type poly  
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 35.46 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.5685369 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 33 in  
Total Volume Pumped 2.25 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%	+/- 100		+/- 10%	+/- 100
Last 5	11:59:42	300.06	30.08	6.20	131.84	4.92	36.90	6.28	208.60
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

Sampled at 1159 on 10-3-18. 83F sunny. Purged dry on 10-2-18, allowed for recharge.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 15:21:44

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 36 ft

Pump placement from TOC 29.10 ft

Well Information:

Well ID GWC-32  
Well diameter 2 in  
Well Total Depth 33.1 ft  
Screen Length 10 ft  
Depth to Water 25.44 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2506832 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 41 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	15:00:07	4504.03	22.39	6.06	98.88	0.67	28.70	5.04	326.52
Last 5	15:05:07	4804.03	22.53	6.06	98.36	0.94	28.80	4.96	296.68
Last 5	15:10:08	5105.03	22.77	6.06	100.46	0.87	28.90	4.76	281.38
Last 5	15:15:11	5408.03	23.39	6.06	100.60	0.76	29.00	4.58	263.79
Last 5	15:20:11	5708.03	22.80	6.06	101.19	0.71	29.10	4.42	241.27
Variance 0			0.24	-0.00	2.10			-0.20	-15.30
Variance 1			0.62	-0.00	0.14			-0.18	-17.59
Variance 2			-0.59	0.00	0.59			-0.16	-22.52

Notes

Sampled on 10-2-18 @ 1520. 86F partly cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 13:16:19

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type peri pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 27 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 13.46 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.2105124 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 71 in  
Total Volume Pumped 18.25 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%	+/- 100		+/- 10%	+/- 100
Last 5	12:55:13	5710.01	24.37	6.15	135.47	0.92	19.30	6.03	503.56
Last 5	13:00:13	6010.03	26.73	6.26	140.92	0.88	19.30	6.59	482.03
Last 5	13:05:13	6310.03	27.44	6.43	138.70	0.87	19.40	6.74	475.27
Last 5	13:10:14	6611.03	27.34	6.45	139.18	0.88	19.40	6.84	468.74
Last 5	13:15:14	6911.03	27.38	6.47	139.09	0.97	19.40	6.92	460.15
Variance 0			0.71	0.16	-2.22			0.15	-6.76
Variance 1			-0.10	0.02	0.48			0.10	-6.53
Variance 2			0.04	0.02	-0.09			0.08	-8.59

Notes

Sampled on 10-2-18 @ 1315. 83F partly cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 10:42:06

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - Landfill  
Site Name Wansley - Landfill  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 588863  
Turbidity Make/Model Hatch 2100Q

Pump Information:

Pump Model/Type Peru pump  
Tubing Type poly  
Tubing Diameter .17 in  
Tubing Length 54 ft

Pump placement from TOC 45.8 ft

Well Information:

Well ID GWC-34  
Well diameter 2 in  
Well Total Depth 50.8 ft  
Screen Length 10 ft  
Depth to Water 4.88 ft

Pumping Information:

Final Pumping Rate 155 mL/min  
Total System Volume 0.3310249 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	10:20:41	300.03	20.39	5.83	49.73	10.20	5.00	0.84	86.05
Last 5	10:25:41	600.03	20.16	5.83	48.48	1.88	5.00	1.10	87.44
Last 5	10:30:41	900.03	20.03	5.83	48.05	1.36	5.00	1.39	83.35
Last 5	10:35:44	1203.03	19.98	5.83	47.58	1.93	5.00	1.61	81.63
Last 5	10:40:46	1505.03	20.12	5.86	47.57	1.34	5.00	1.82	79.31
Variance 0			-0.13	-0.00	-0.44			0.29	-4.08
Variance 1			-0.05	0.00	-0.47			0.23	-1.73
Variance 2			0.14	0.03	-0.01			0.21	-2.32

Notes

Sampled at 1045 @ 10-1-18. 72F partly cloudy.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 15:06:58

Project Information:

Operator Name O. Fuquea  
Company Name ACC  
Project Name CCR - Plant Wansley - LF  
Site Name Plant Wansley LF  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369550  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder Pro QED  
Tubing Type peri pump  
Tubing Diameter .17 in  
Tubing Length 44 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 8.86 ft

Pumping Information:

Final Pumping Rate 125 mL/min  
Total System Volume 0.2863906 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 $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 10%
Last 5	14:45:01	600.02	23.80	5.61	45.98	1.45	8.70	2.08	148.98
Last 5	14:50:01	900.02	23.41	5.58	46.06	1.44	8.70	2.07	148.22
Last 5	14:55:01	1200.02	23.86	5.59	45.71	1.00	8.70	2.05	147.60
Last 5	15:00:04	1503.02	23.90	5.58	45.78	0.82	8.70	2.05	148.31
Last 5	15:05:10	1809.02	23.48	5.55	45.39	1.07	8.70	2.03	148.60
Variance 0			0.44	0.00	-0.35			-0.01	-0.62
Variance 1			0.05	-0.01	0.08			-0.01	0.72
Variance 2			-0.42	-0.02	-0.39			-0.01	0.28

Notes

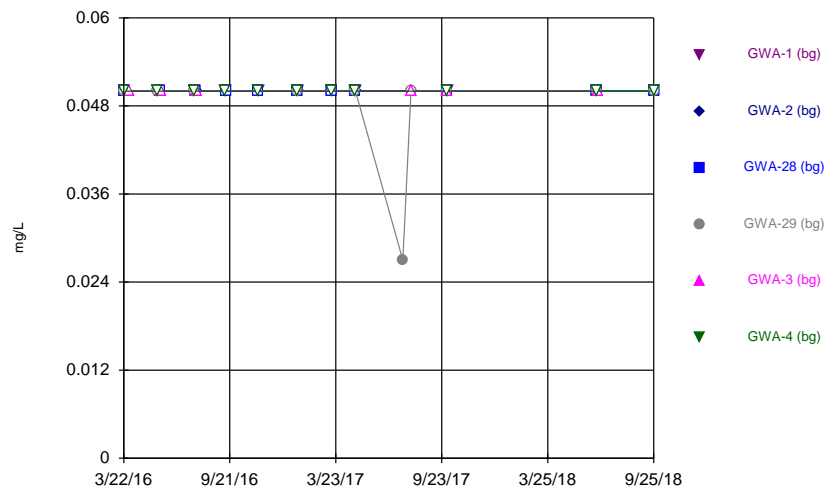
Sampled at 10-1-18 @ 1505. 84F partly cloudy.

Grab Samples

# APPENDIX C

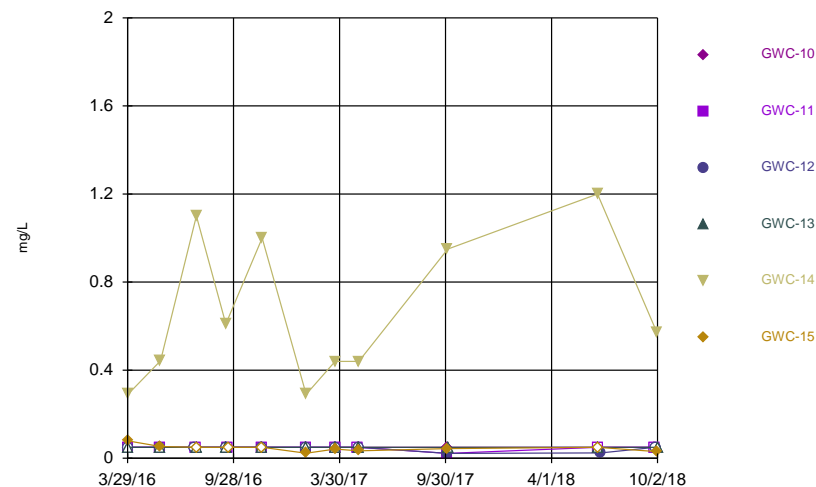
## STATISTICAL ANALYSES

### Boron



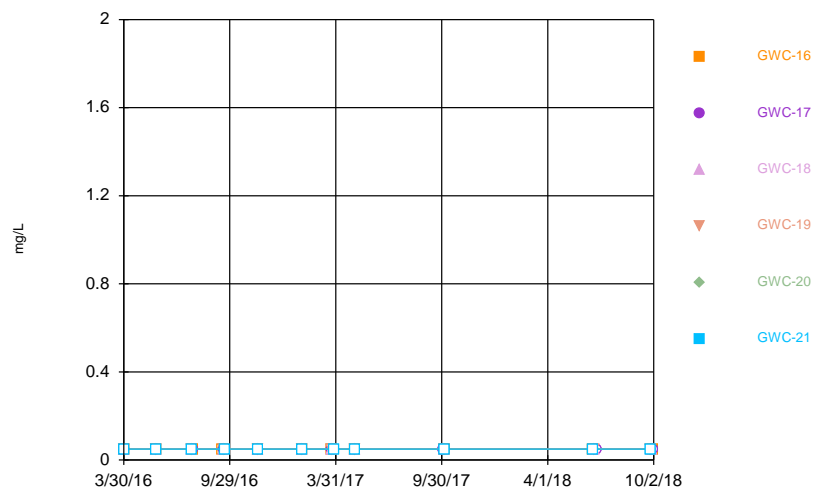
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### Boron



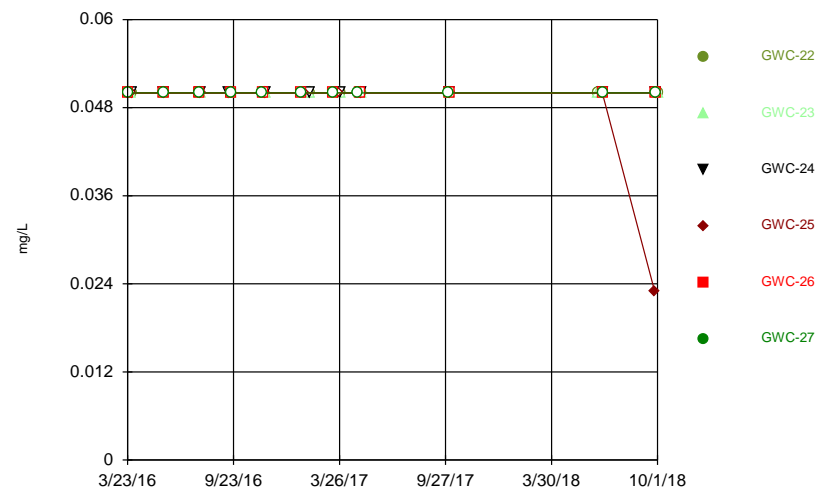
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### Boron



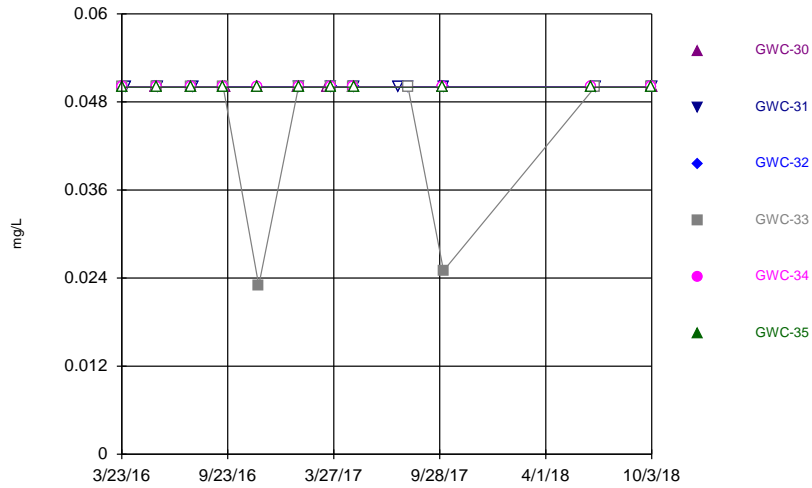
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### Boron



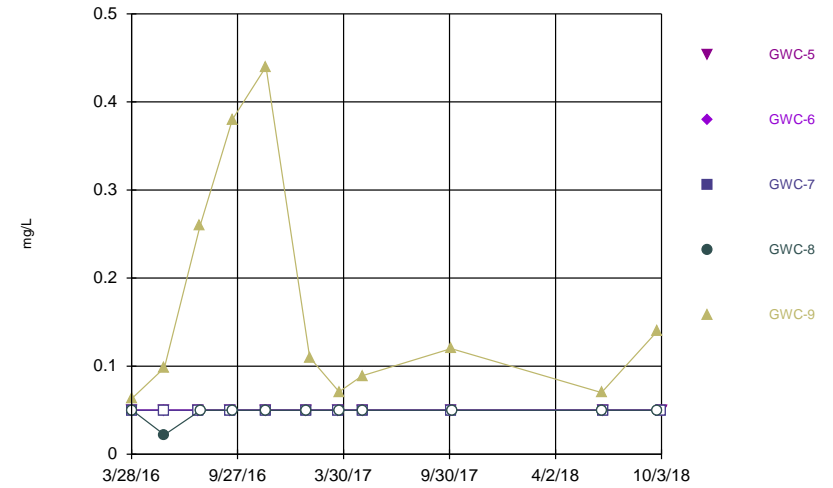
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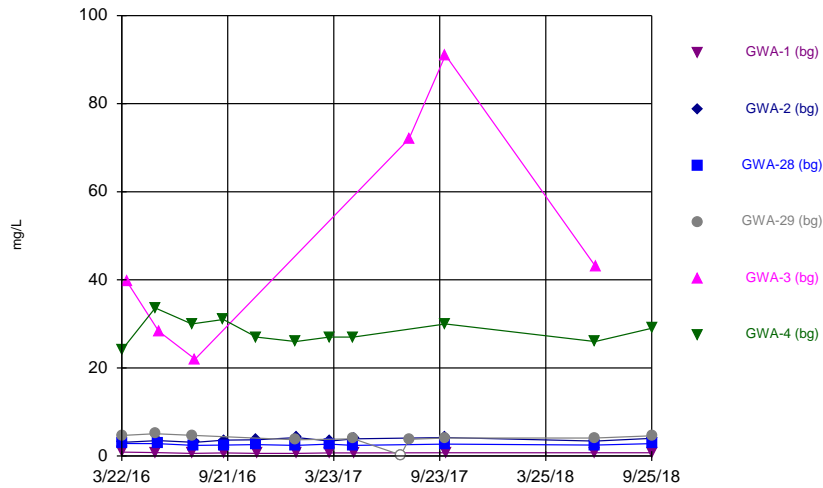
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### Boron



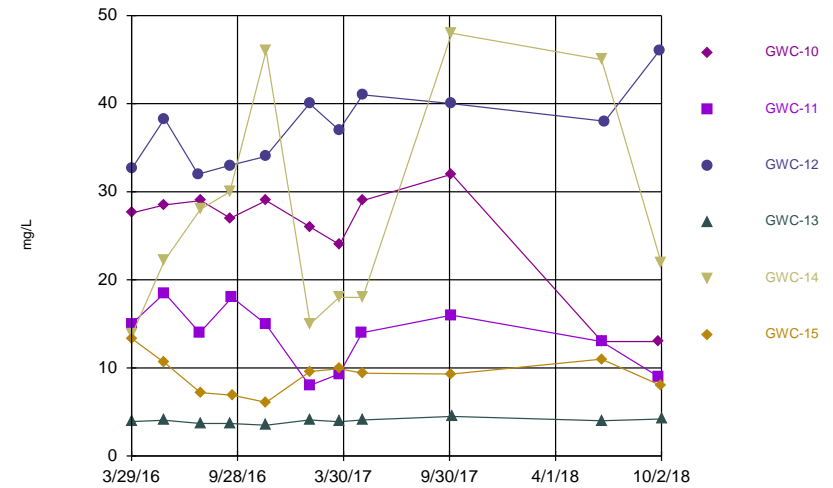
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### Calcium



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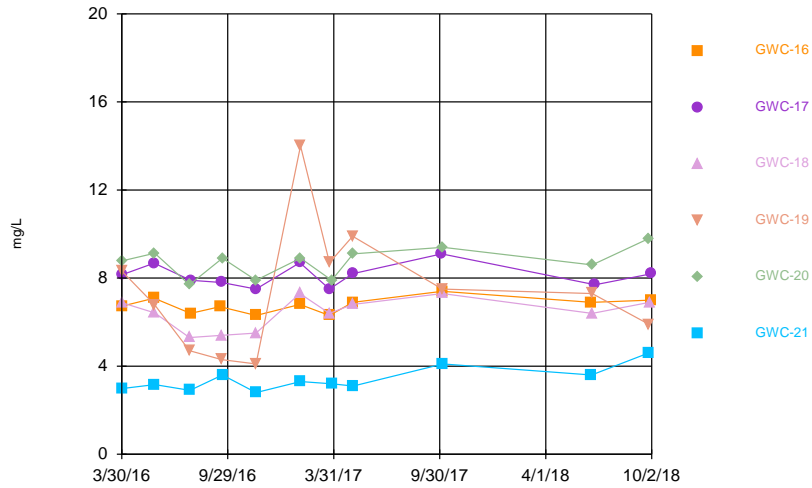
### Calcium



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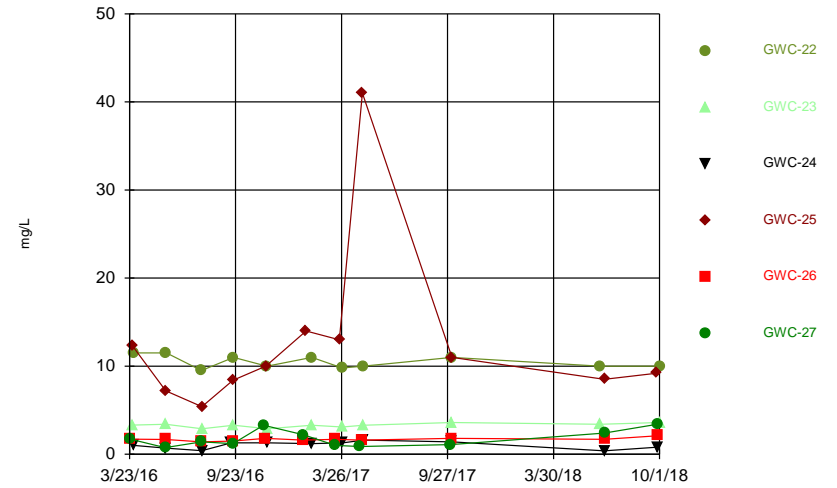


### Calcium



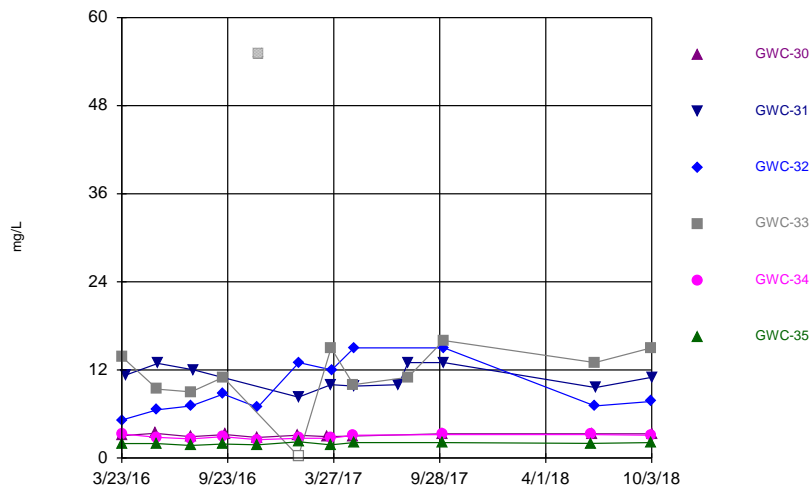
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### Calcium



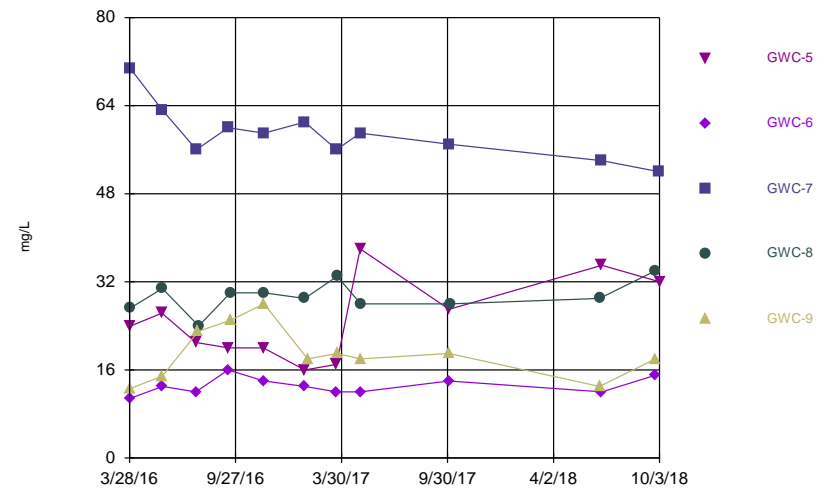
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### Calcium



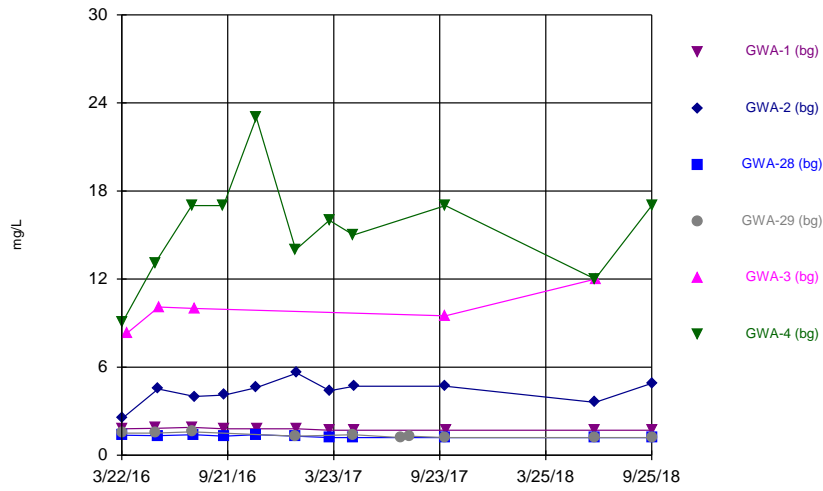
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### Calcium



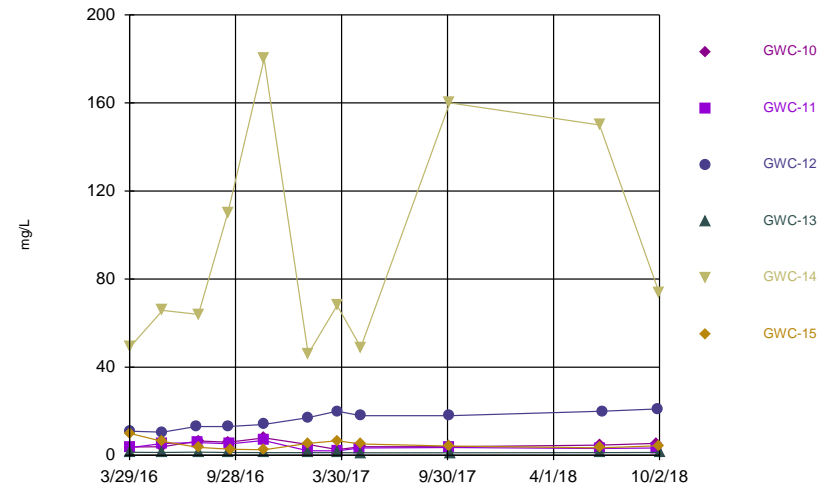
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### Chloride



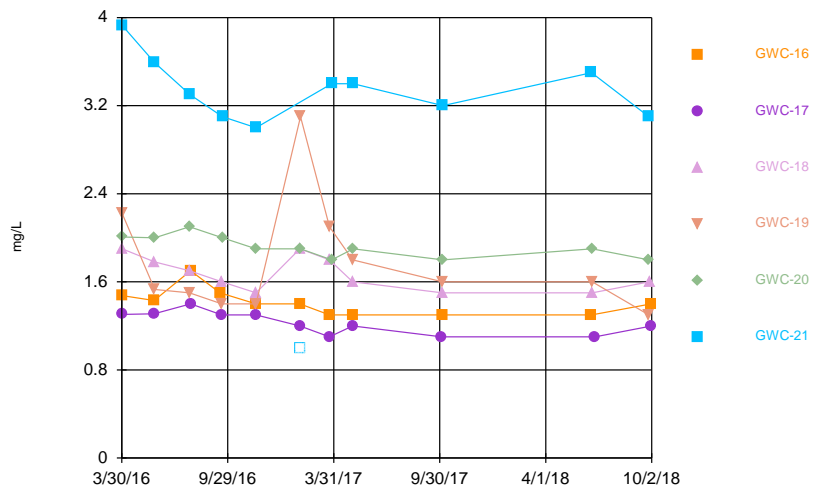
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### Chloride



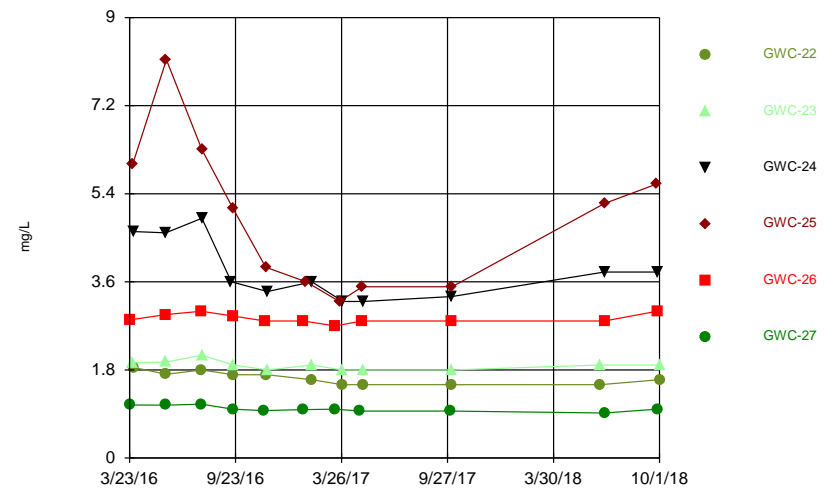
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### Chloride



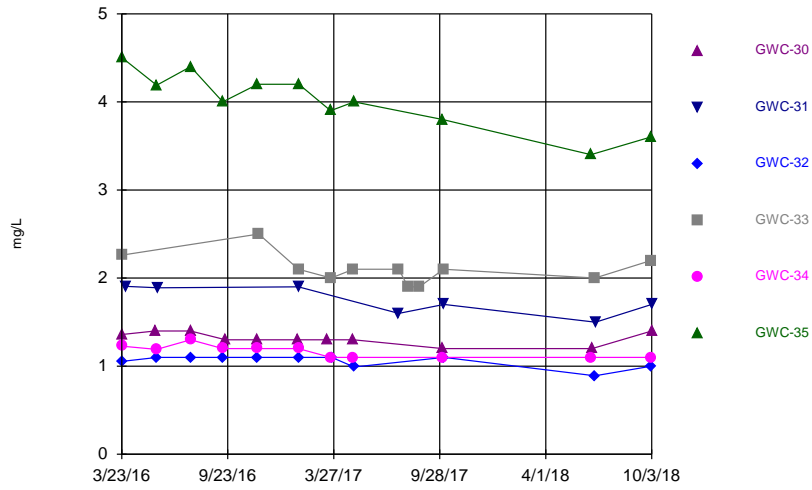
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### Chloride



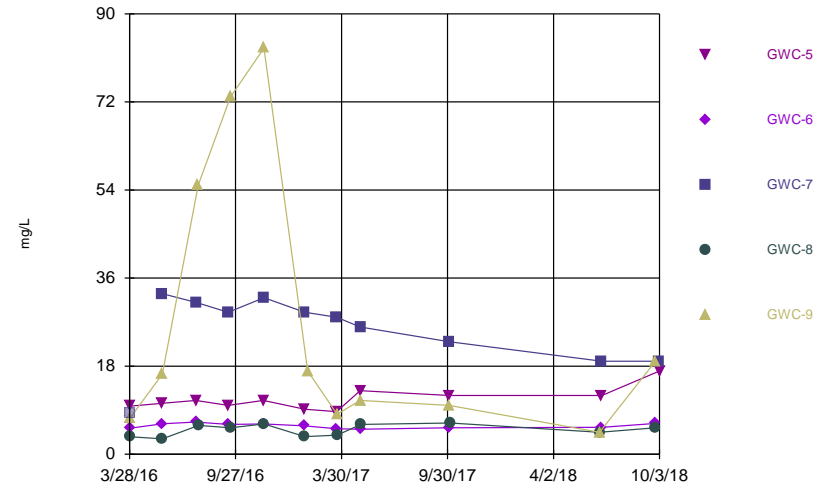
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### Chloride



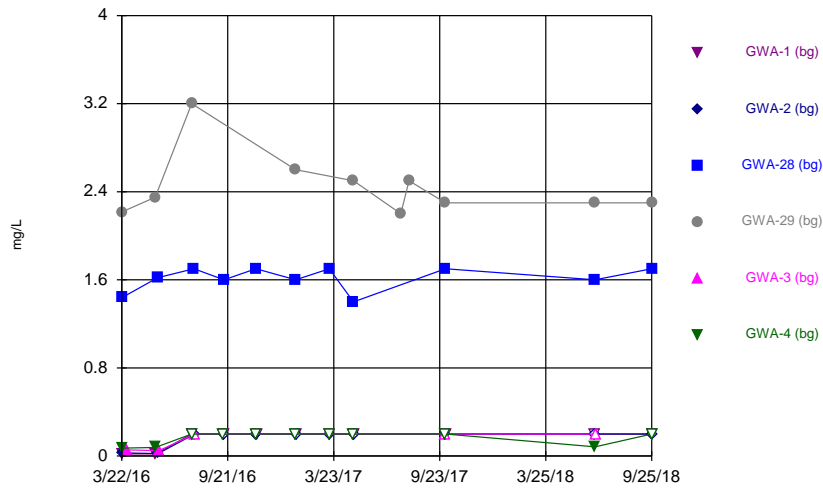
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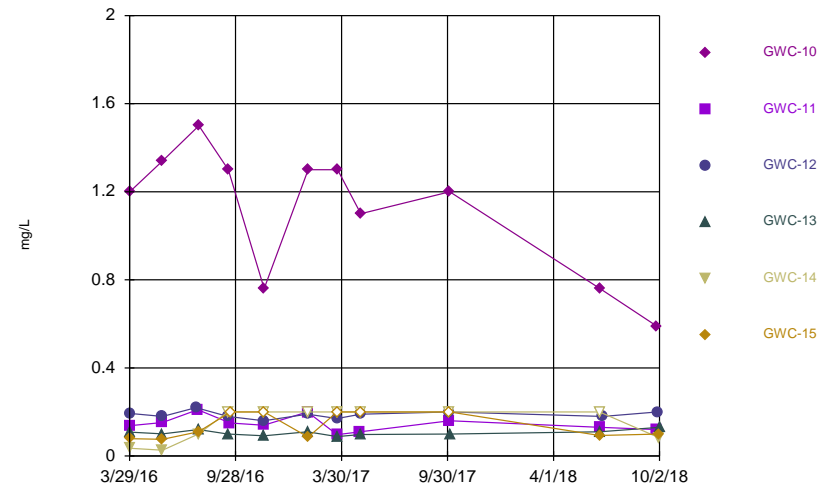
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### Fluoride



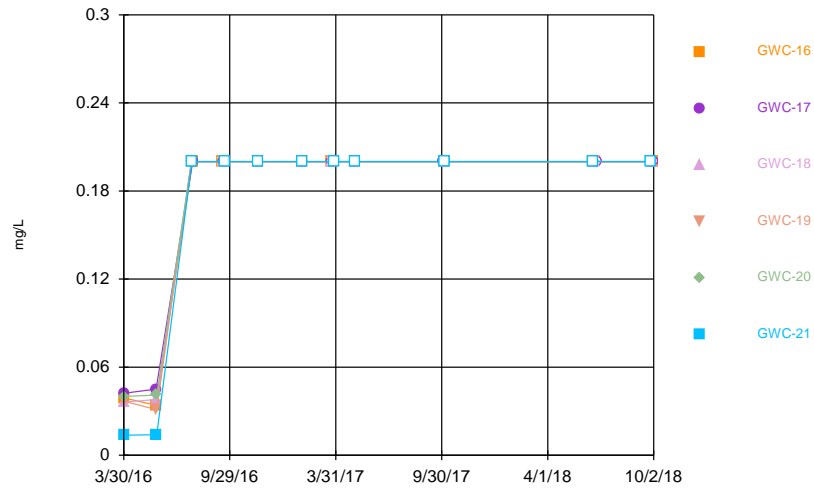
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### Fluoride



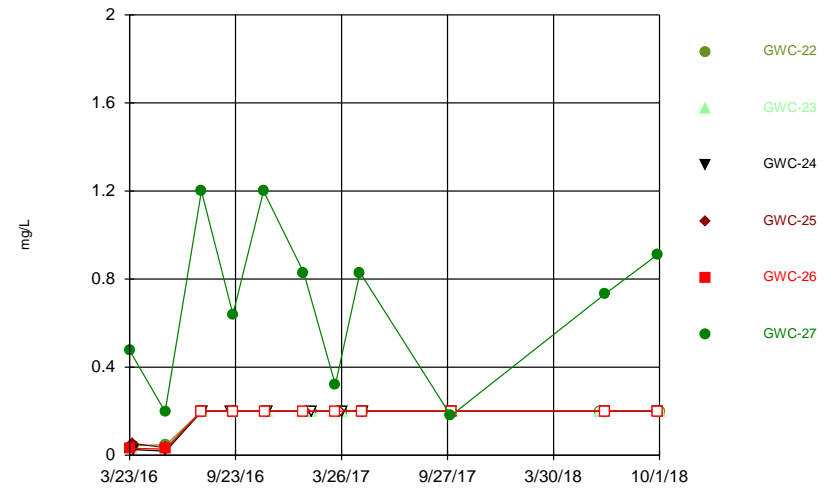
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### Fluoride



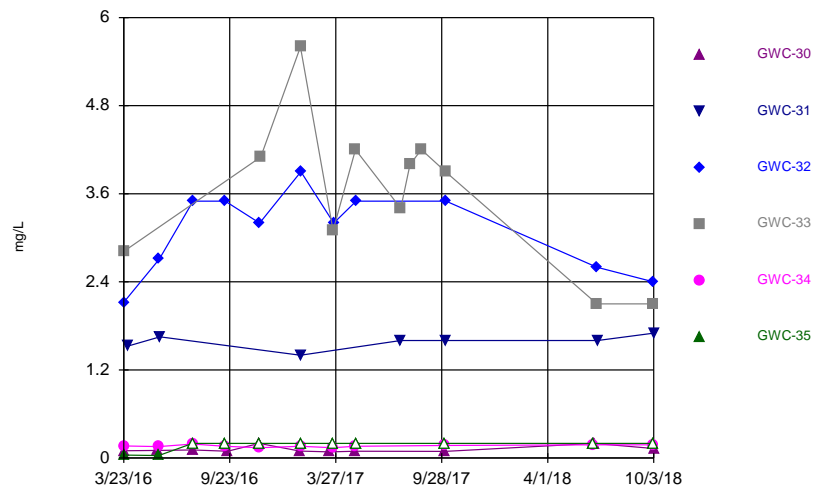
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### Fluoride



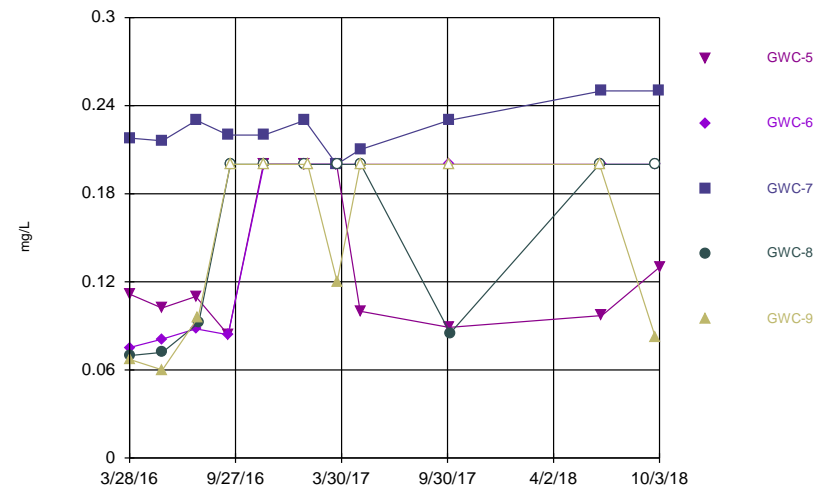
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### Fluoride



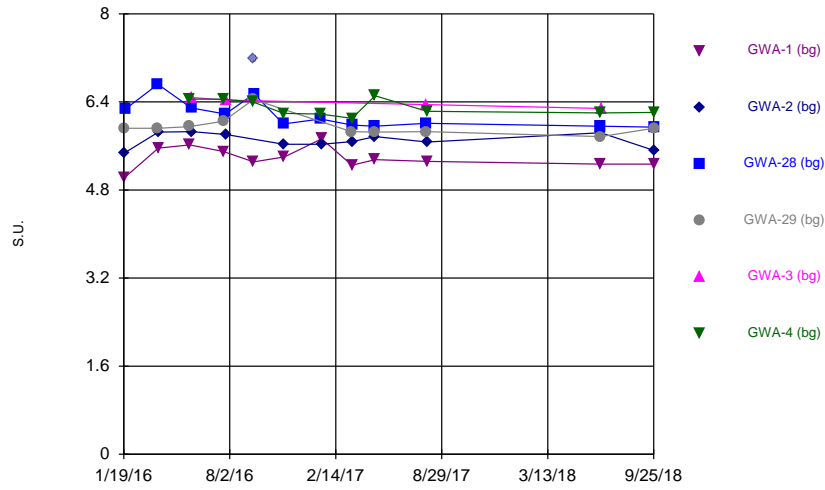
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### Fluoride



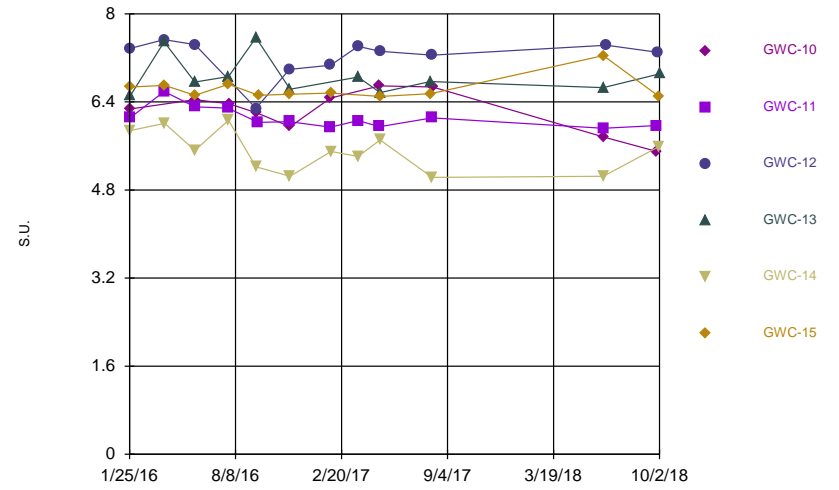
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### pH



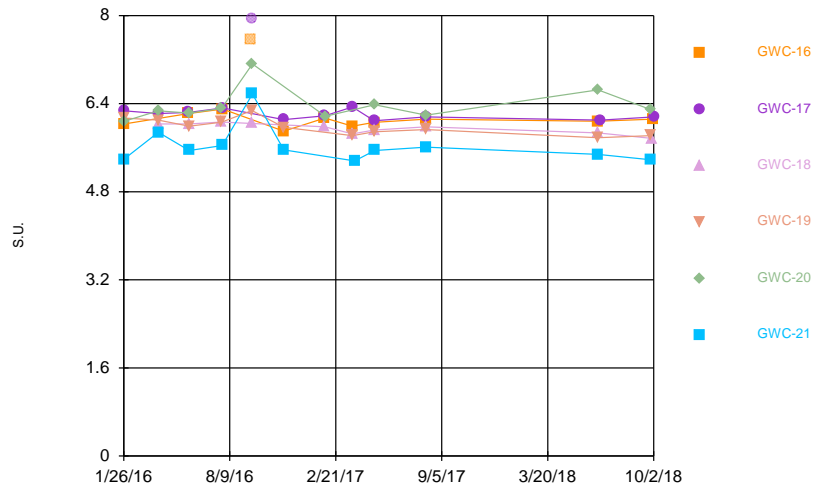
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### pH



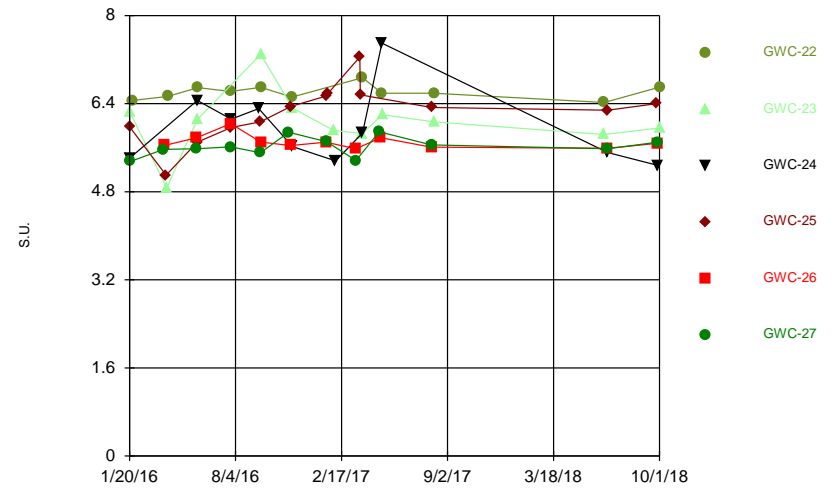
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### pH



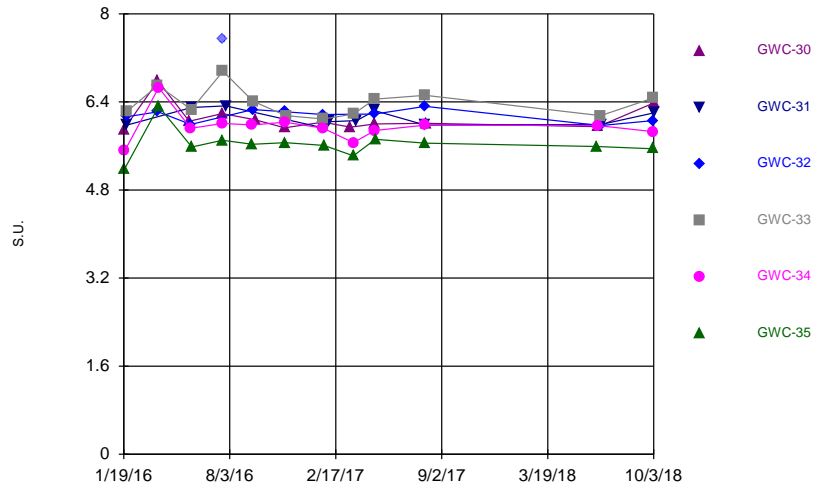
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### pH



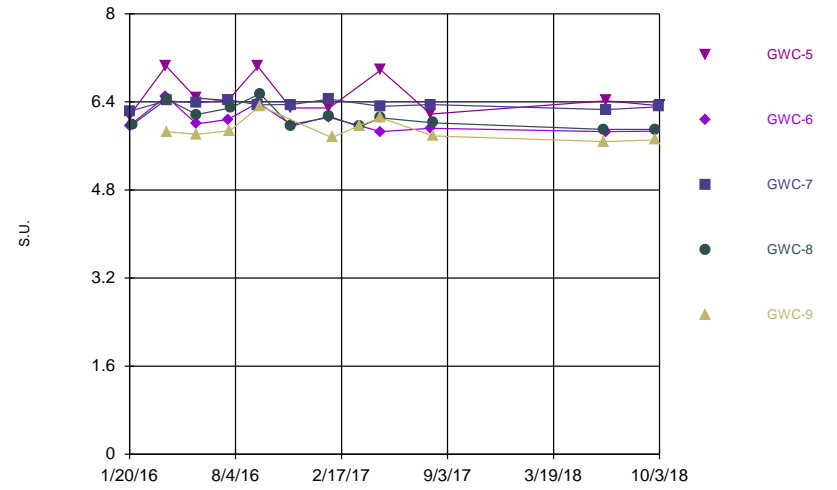
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### pH



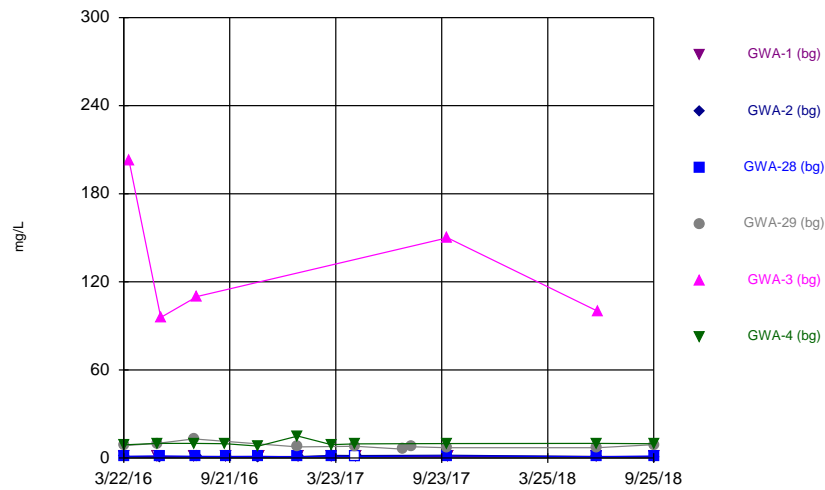
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 Plant Wansley Client: Southern Company Data: Wansley Landfill

### pH



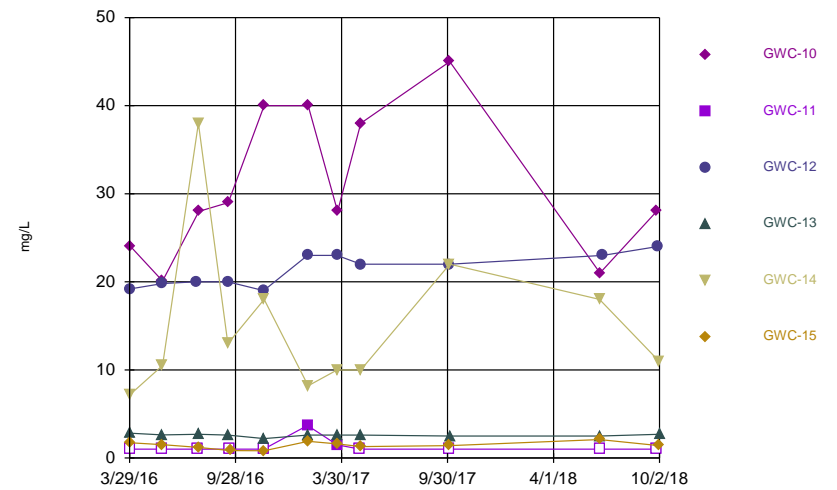
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 Plant Wansley Client: Southern Company Data: Wansley Landfill

### Sulfate



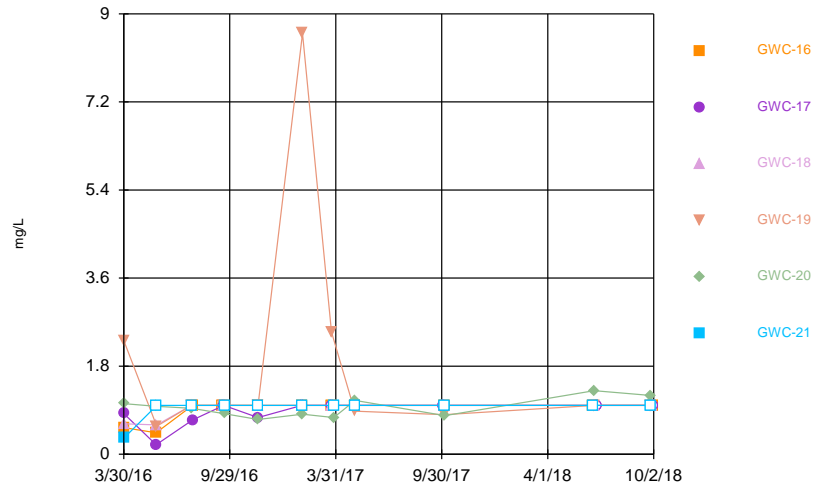
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### Sulfate



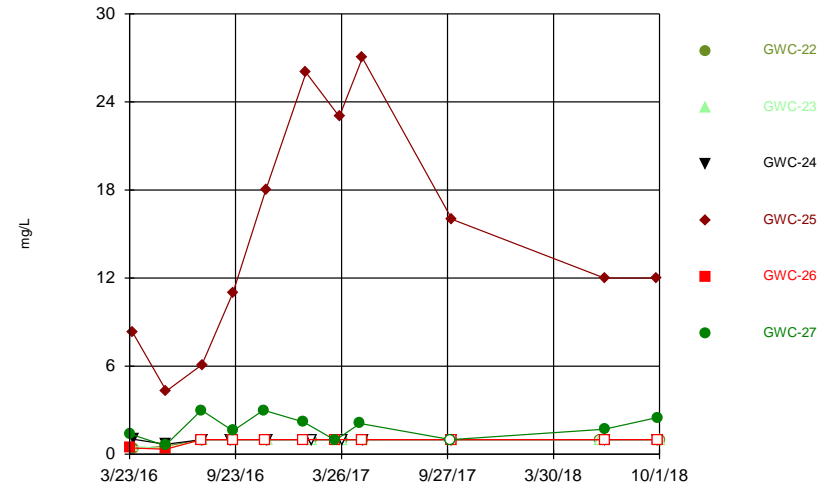
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### Sulfate



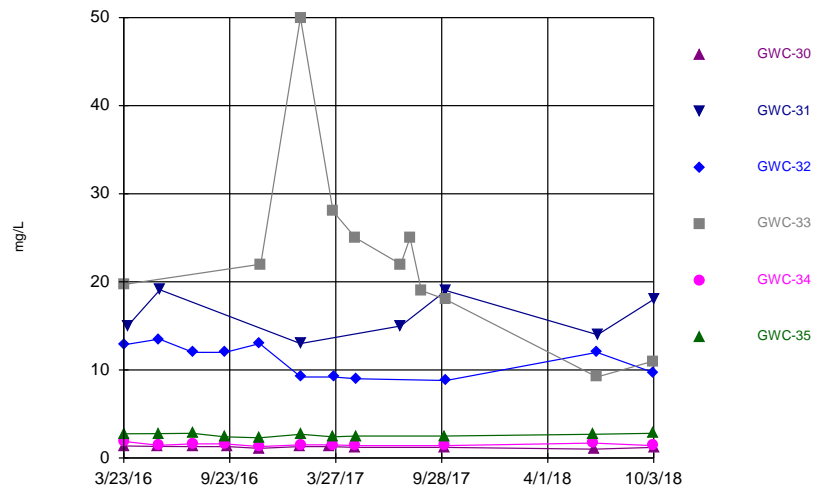
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### Sulfate



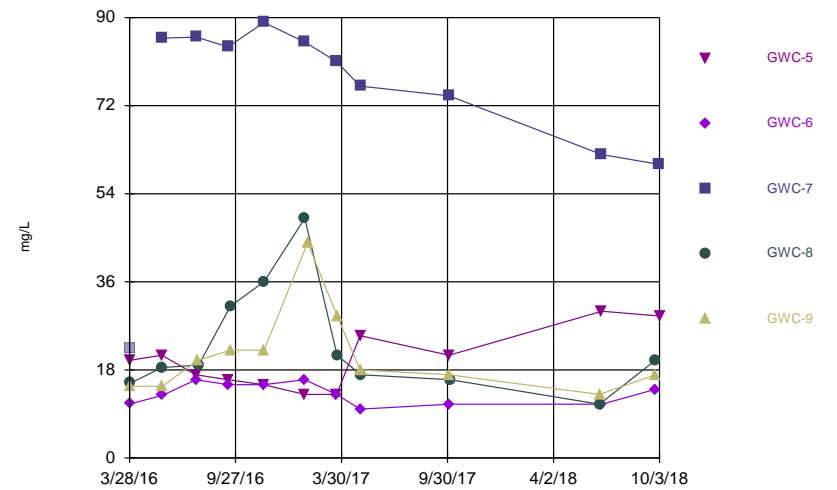
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Plant Wansley Client: Southern Company Data: Wansley Landfill

### Sulfate



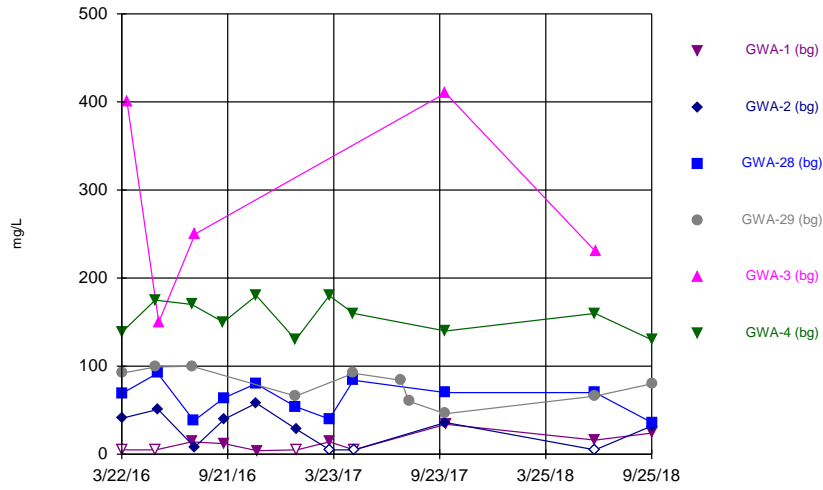
Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
Plant Wansley Client: Southern Company Data: Wansley Landfill

### Sulfate



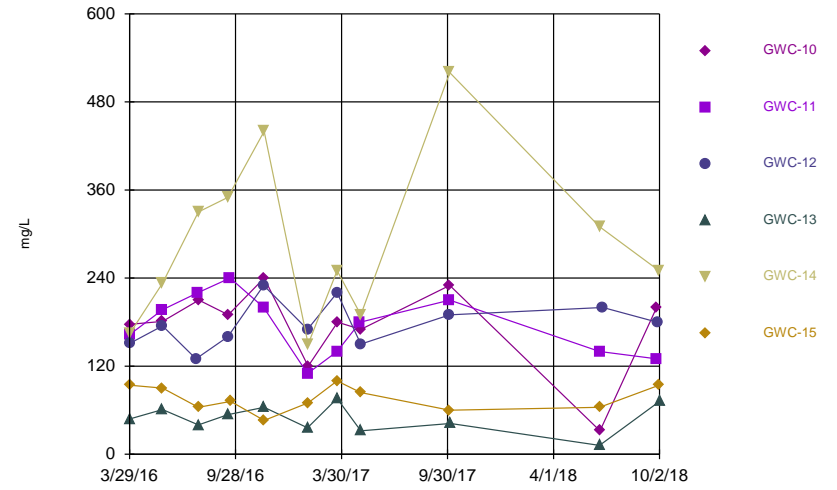
Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
Plant Wansley Client: Southern Company Data: Wansley Landfill

### Total Dissolved Solids



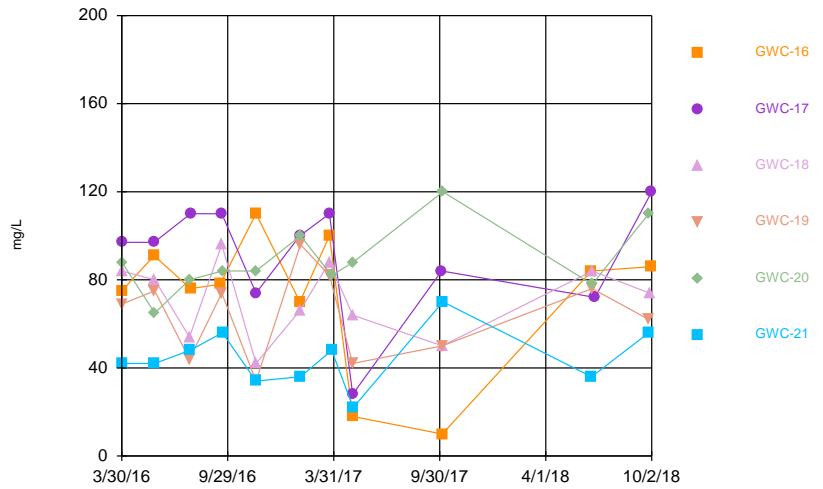
Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
Plant Wansley Client: Southern Company Data: Wansley Landfill

### Total Dissolved Solids



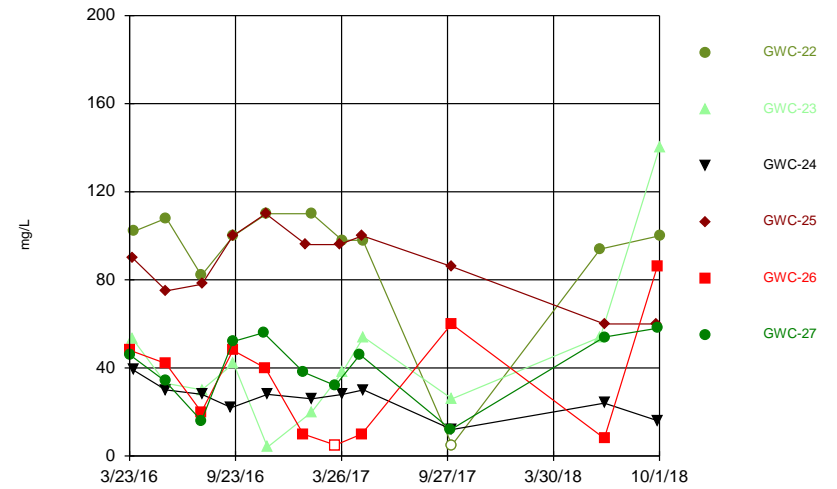
Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
Plant Wansley Client: Southern Company Data: Wansley Landfill

### Total Dissolved Solids



Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
Plant Wansley Client: Southern Company Data: Wansley Landfill

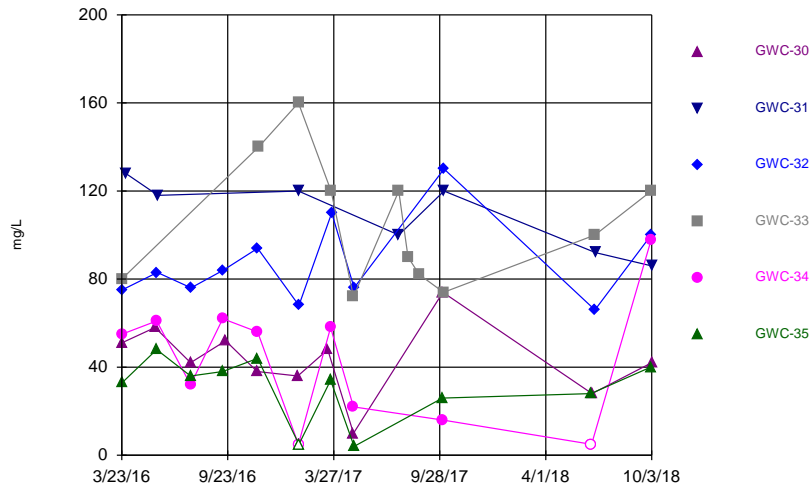
### Total Dissolved Solids



Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
Plant Wansley Client: Southern Company Data: Wansley Landfill

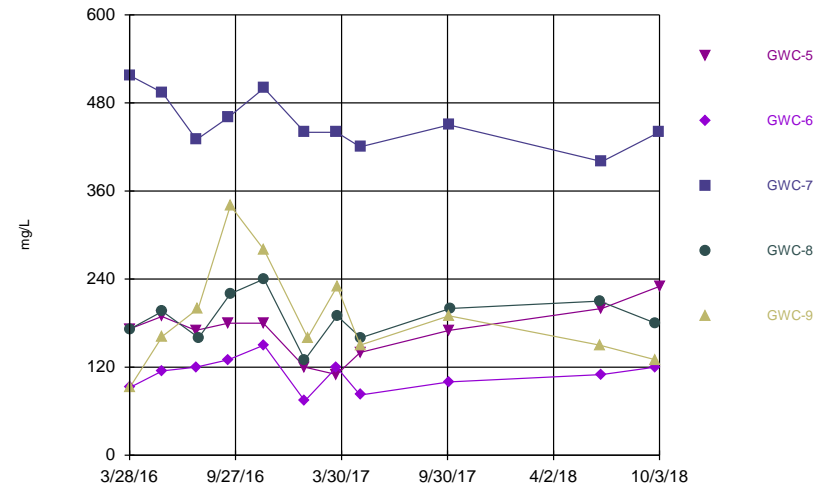


### Total Dissolved Solids



Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

### Total Dissolved Solids



Time Series Analysis Run 12/4/2018 5:28 PM View: Federal Time Series  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

# Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 9:06 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-10	0.05465	n/a	6/21/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-11	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-12	0.05465	n/a	6/26/2018	0.0188	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-13	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
<b>Boron (mg/L)</b>	<b>GWC-14</b>	<b>0.05465</b>	<b>n/a</b>	<b>6/20/2018</b>	<b>1.195</b>	<b>Yes</b>	<b>60</b>	<b>98.33</b>	<b>n/a</b>	<b>0.0004958</b>	<b>NP Inter (NDs) 1 of ...</b>
Boron (mg/L)	GWC-15	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-16	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-17	0.05465	n/a	6/26/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-18	0.05465	n/a	6/21/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-19	0.05465	n/a	6/21/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-20	0.05465	n/a	6/21/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-21	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-22	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-23	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-24	0.05465	n/a	6/27/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-25	0.05465	n/a	6/27/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-26	0.05465	n/a	6/27/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-27	0.05465	n/a	6/27/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-30	0.05465	n/a	6/21/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-31	0.05465	n/a	6/27/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-32	0.05465	n/a	6/26/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-33	0.05465	n/a	6/26/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-34	0.05465	n/a	6/20/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-35	0.05465	n/a	6/19/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-5	0.05465	n/a	6/25/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-6	0.05465	n/a	6/25/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-7	0.05465	n/a	6/25/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-8	0.05465	n/a	6/21/2018	0.01980...	No	60	98.33	n/a	0.0004958	NP Inter (NDs) 1 of ...
<b>Boron (mg/L)</b>	<b>GWC-9</b>	<b>0.05465</b>	<b>n/a</b>	<b>6/21/2018</b>	<b>0.0648</b>	<b>Yes</b>	<b>60</b>	<b>98.33</b>	<b>n/a</b>	<b>0.0004958</b>	<b>NP Inter (NDs) 1 of ...</b>
Calcium (mg/L)	GWC-10	90.31	n/a	6/21/2018	14.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-11	90.31	n/a	6/20/2018	14.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-12	90.31	n/a	6/26/2018	39.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-13	90.31	n/a	6/20/2018	5.337	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-14	90.31	n/a	6/20/2018	46.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-15	90.31	n/a	6/20/2018	12.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-16	90.31	n/a	6/20/2018	8.237	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-17	90.31	n/a	6/26/2018	9.037	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-18	90.31	n/a	6/21/2018	7.737	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-19	90.31	n/a	6/21/2018	8.637	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-20	90.31	n/a	6/21/2018	9.937	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-21	90.31	n/a	6/20/2018	4.937	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-22	90.31	n/a	6/20/2018	11.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-23	90.31	n/a	6/20/2018	4.737	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-24	90.31	n/a	6/27/2018	1.717	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-25	90.31	n/a	6/27/2018	9.837	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-26	90.31	n/a	6/27/2018	3.037	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-27	90.31	n/a	6/27/2018	3.737	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-30	90.31	n/a	6/21/2018	4.637	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-31	90.31	n/a	6/27/2018	10.94	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-32	90.31	n/a	6/26/2018	8.437	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...

## Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 9:06 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	GWC-33	90.31	n/a	6/26/2018	14.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-34	90.31	n/a	6/20/2018	4.537	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-35	90.31	n/a	6/19/2018	3.337	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-5	90.31	n/a	6/25/2018	36.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-6	90.31	n/a	6/25/2018	13.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-7	90.31	n/a	6/25/2018	55.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-8	90.31	n/a	6/21/2018	30.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Calcium (mg/L)	GWC-9	90.31	n/a	6/21/2018	14.34	No	60	1.667	n/a	0.0004958	NP Inter (normality) ...
Chloride (mg/L)	GWC-10	20.28	n/a	6/21/2018	5.467	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-11	20.28	n/a	6/20/2018	3.967	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
<b>Chloride (mg/L)</b>	<b>GWC-12</b>	<b>20.28</b>	<b>n/a</b>	<b>6/26/2018</b>	<b>20.87</b>	<b>Yes</b>	<b>59</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.0002595</b>	<b>Param Inter 1 of 2 De...</b>
Chloride (mg/L)	GWC-13	20.28	n/a	6/20/2018	2.067	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
<b>Chloride (mg/L)</b>	<b>GWC-14</b>	<b>20.28</b>	<b>n/a</b>	<b>6/20/2018</b>	<b>150.9</b>	<b>Yes</b>	<b>59</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.0002595</b>	<b>Param Inter 1 of 2 De...</b>
Chloride (mg/L)	GWC-15	20.28	n/a	6/20/2018	4.267	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-16	20.28	n/a	6/20/2018	2.167	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-17	20.28	n/a	6/26/2018	1.967	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-18	20.28	n/a	6/21/2018	2.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-19	20.28	n/a	6/21/2018	2.467	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-20	20.28	n/a	6/21/2018	2.767	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-21	20.28	n/a	6/20/2018	4.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-22	20.28	n/a	6/20/2018	2.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-23	20.28	n/a	6/20/2018	2.767	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-24	20.28	n/a	6/27/2018	4.667	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-25	20.28	n/a	6/27/2018	6.067	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-26	20.28	n/a	6/27/2018	3.667	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-27	20.28	n/a	6/27/2018	1.787	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-30	20.28	n/a	6/21/2018	2.067	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-31	20.28	n/a	6/27/2018	2.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-32	20.28	n/a	6/26/2018	1.757	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-33	20.28	n/a	6/26/2018	2.867	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-34	20.28	n/a	6/20/2018	1.967	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-35	20.28	n/a	6/19/2018	4.267	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-5	20.28	n/a	6/25/2018	12.87	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-6	20.28	n/a	6/25/2018	6.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-7	20.28	n/a	6/25/2018	19.87	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-8	20.28	n/a	6/21/2018	5.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-9	20.28	n/a	6/21/2018	5.367	No	59	0	sqrt(x)	0.0002595	Param Inter 1 of 2 De...
Fluoride (mg/L)	GWC-10	3.229	n/a	6/21/2018	0.7889	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-11	3.229	n/a	6/20/2018	0.1589	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-12	3.229	n/a	6/26/2018	0.2089	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-13	3.229	n/a	6/20/2018	0.1389	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-14	3.229	n/a	6/20/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-15	3.229	n/a	6/20/2018	0.1219	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-16	3.229	n/a	6/20/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-17	3.229	n/a	6/26/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-18	3.229	n/a	6/21/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-19	3.229	n/a	6/21/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-20	3.229	n/a	6/21/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-21	3.229	n/a	6/20/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-22	3.229	n/a	6/20/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...

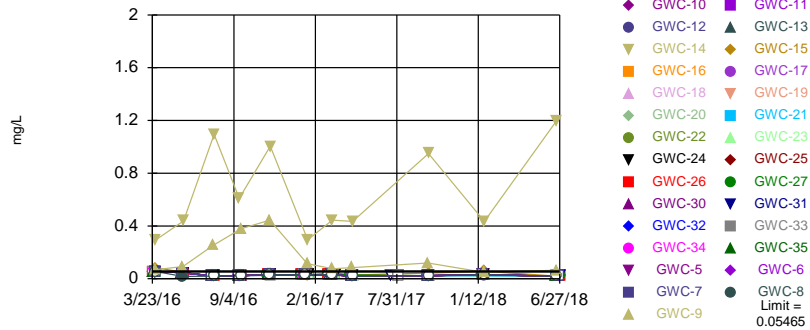
# Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 9:06 AM

<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>
Fluoride (mg/L)	GWC-23	3.229	n/a	6/20/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-24	3.229	n/a	6/27/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-25	3.229	n/a	6/27/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-26	3.229	n/a	6/27/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-27	3.229	n/a	6/27/2018	0.7589	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-30	3.229	n/a	6/21/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-31	3.229	n/a	6/27/2018	1.629	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-32	3.229	n/a	6/26/2018	2.629	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-33	3.229	n/a	6/26/2018	2.129	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-34	3.229	n/a	6/20/2018	0.2089	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-35	3.229	n/a	6/19/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-5	3.229	n/a	6/25/2018	0.1259	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-6	3.229	n/a	6/25/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-7	3.229	n/a	6/25/2018	0.2789	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-8	3.229	n/a	6/21/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...
Fluoride (mg/L)	GWC-9	3.229	n/a	6/21/2018	0.12893...	No	59	49.15	n/a	0.0005152	NP Inter (normality) ...

Exceeds Limit: GWC-14, GWC-9

**Boron**  
Interwell Non-parametric

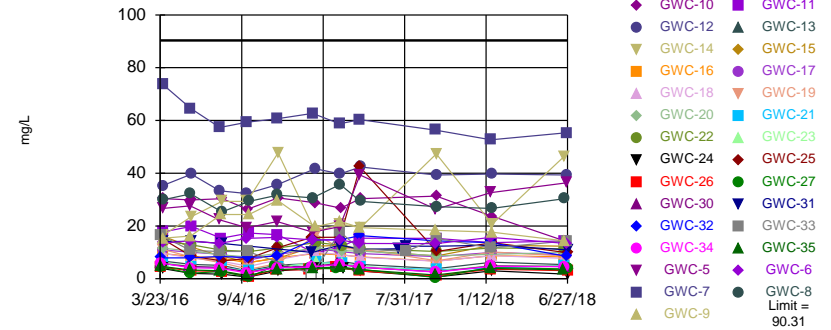


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 60 background values. 98.33% NDs. Annual per-constituent alpha = 0.02836. Individual comparison alpha = 0.0004958 (1 of 2). Comparing 29 points to limit. Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 9:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Calcium**  
Interwell Non-parametric

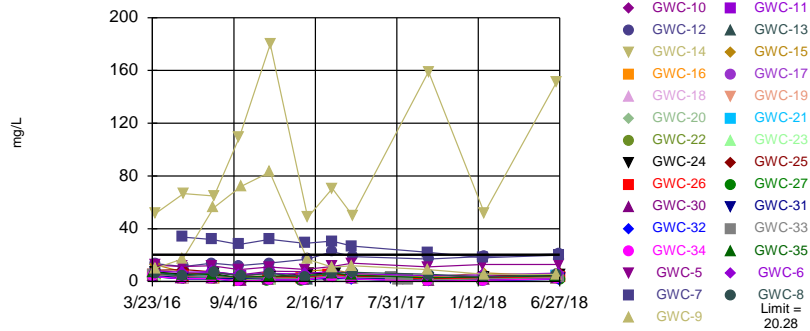


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 1.667% NDs. Annual per-constituent alpha = 0.02836. Individual comparison alpha = 0.0004958 (1 of 2). Comparing 29 points to limit. Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 9:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limit: GWC-12, GWC-14

**Chloride**  
Interwell Parametric

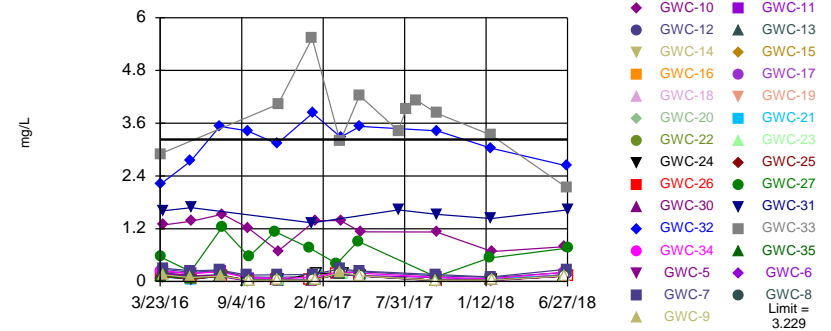


Background Data Summary (based on square root transformation): Mean=2.027, Std. Dev.=1.092, n=59. Data were deseasonalized. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9473, critical = 0.945. Kappa = 2.268 (c=7, w=29, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0002595. Comparing 29 points to limit.

Prediction Limit Analysis Run 1/24/2019 9:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Fluoride**  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 59 background values. 49.15% NDs. Annual per-constituent alpha = 0.02945. Individual comparison alpha = 0.0005152 (1 of 2). Comparing 29 points to limit. Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 9:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-33	GWC-30	GWC-27	GWC-32	GWA-4 (bg)	GWA-1 (bg)
3/22/2016	0.054648819..	0.054648819..							
3/23/2016			0.054648819..	0.054648819..	0.054648819..	0.054648819..	0.054648819..	0.054648819..	0.054648819..
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016	0.044801429..							0.044801429..	
5/20/2016					0.044801429..				0.044801429..
5/23/2016		0.044801429..							
5/24/2016			0.044801429..	0.044801429..		0.044801429..	0.044801429..		
5/25/2016									
5/26/2016									
7/21/2016	0.019801428..				0.019801428..			0.019801428..	0.019801428..
7/22/2016				0.019801428..			0.019801428..		
7/25/2016		0.019801428..							
7/26/2016			0.019801428..			0.019801428..			
7/27/2016									
9/14/2016								0.023943807..	
9/15/2016		0.023943807..							0.023943807..
9/16/2016			0.023943807..	0.023943807..			0.023943807..		
9/19/2016						0.023943807..			
9/20/2016					0.023943807..				
11/9/2016		0.029383702..							
11/10/2016			0.029383702..					0.029383702..	
11/11/2016						0.029383702..			0.029383702..
11/14/2016					0.029383702..				
11/15/2016							0.029383702..		
11/16/2016									
11/17/2016				0.02738 (J)					
11/18/2016									
1/17/2017	0.029383702..	0.029383702..						0.029383702..	
1/19/2017			0.029383702..						0.029383702..
1/20/2017						0.029383702..			
1/24/2017					0.029383702..				
1/25/2017				0.029383702..					
1/26/2017							0.029383702..		
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017		0.029648819..				0.029648819..		0.029648819..	0.029648819..
3/17/2017			0.029648819..		0.029648819..				
3/22/2017									
3/23/2017				0.029648819..					
3/24/2017							0.029648819..		
3/28/2017									
3/29/2017									
4/27/2017	0.029648819..	0.029648819..						0.029648819..	
4/28/2017			0.029648819..			0.029648819..			0.029648819..
5/1/2017				0.019801428..	0.019801428..				
5/2/2017							0.019801428..		

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-33	GWC-30	GWC-27	GWC-32	GWA-4 (bg)	GWA-1 (bg)
5/3/2017									
5/4/2017									
7/18/2017	0.0218 (J)								
7/19/2017									
8/1/2017	0.023943807..								
8/4/2017				0.023943807..					
10/3/2017	0.023943807..	0.023943807..	0.023943807..			0.023943807..		0.023943807..	
10/4/2017					0.023943807..				0.023943807..
10/5/2017				0.02394 (J)					
10/6/2017							0.023943807..		
1/19/2018	0.029383702..	0.029383702..	0.029383702..			0.029383702..			0.029383702..
1/22/2018								0.029383702..	
1/23/2018				0.029383702..			0.029383702..		
1/24/2018					0.029383702..				
1/25/2018									
6/19/2018	0.019801428..	0.019801428..	0.019801428..					0.019801428..	0.019801428..
6/20/2018									
6/21/2018					0.019801428..				
6/25/2018									
6/26/2018				0.019801428..			0.019801428..		
6/27/2018						0.019801428..			

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-34	GWC-26	GWC-6	GWC-5	GWC-25	GWC-7	GWC-8	GWC-11
3/22/2016									
3/23/2016									
3/24/2016	0.054648819..	0.054648819..	0.054648819..						
3/28/2016				0.054648819..	0.054648819..	0.054648819..			
3/29/2016							0.054648819..	0.054648819..	0.054648819..
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016	0.044801429..	0.044801429..			0.044801429..				
5/24/2016				0.044801429..			0.044801429..	0.0168 (J)	
5/25/2016			0.044801429..			0.044801429..			0.044801429..
5/26/2016									
7/21/2016	0.019801428..	0.019801428..		0.019801428..	0.019801428..				
7/22/2016							0.019801428..		
7/25/2016									0.019801428..
7/26/2016			0.019801428..					0.019801428..	
7/27/2016						0.019801428..			
9/14/2016									
9/15/2016	0.023943807..	0.023943807..		0.023943807..	0.023943807..		0.023943807..		
9/16/2016									
9/19/2016			0.023943807..			0.023943807..		0.023943807..	0.023943807..
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016			0.029383702..						
11/15/2016	0.029383702..	0.029383702..			0.029383702..	0.029383702..			
11/16/2016				0.029383702..			0.029383702..	0.029383702..	0.029383702..
11/17/2016									
11/18/2016									
1/17/2017									
1/19/2017			0.029383702..						
1/20/2017									
1/24/2017						0.029383702..			
1/25/2017		0.029383702..							
1/26/2017	0.029383702..			0.029383702..	0.029383702..		0.029383702..	0.029383702..	
1/31/2017									0.029383702..
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017			0.029648819..						
3/17/2017									
3/22/2017	0.029648819..	0.029648819..		0.029648819..	0.029648819..		0.029648819..		
3/23/2017						0.029648819..		0.029648819..	0.029648819..
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017		0.019801428..	0.019801428..						
5/2/2017	0.019801428..			0.019801428..	0.019801428..	0.019801428..	0.019801428..		0.019801428..



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-34	GWC-26	GWC-6	GWC-5	GWC-25	GWC-7	GWC-8	GWC-11
5/3/2017								0.019801428..	
5/4/2017									
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
10/3/2017	0.023943807..	0.023943807..		0.023943807..	0.023943807..		0.023943807..		
10/4/2017			0.023943807..						0.02094 (J)
10/5/2017						0.023943807..		0.023943807..	
10/6/2017									
1/19/2018									
1/22/2018			0.029383702..						
1/23/2018	0.029383702..	0.029383702..		0.029383702..	0.029383702..		0.029383702..		
1/24/2018								0.029383702..	0.029383702..
1/25/2018						0.029383702..			
6/19/2018	0.019801428..								
6/20/2018		0.019801428..							0.019801428..
6/21/2018								0.019801428..	
6/25/2018				0.019801428..	0.019801428..		0.019801428..		
6/26/2018									
6/27/2018			0.019801428..			0.019801428..			



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-9	GWC-13	GWC-12	GWC-23	GWC-18	GWC-14	GWC-16	GWC-24	GWC-17
5/3/2017		0.019801428..	0.019801428..		0.019801428..	0.4348	0.019801428..		0.019801428..
5/4/2017				0.019801428..				0.019801428..	
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
10/3/2017	0.1189								
10/4/2017			0.02094 (J)			0.9489			0.023943807..
10/5/2017		0.023943807..		0.023943807..	0.023943807..		0.023943807..	0.023943807..	
10/6/2017									
1/19/2018									
1/22/2018									
1/23/2018									
1/24/2018	0.04838 (J)		0.02738 (J)						
1/25/2018		0.029383702..		0.029383702..	0.029383702..	0.4344	0.029383702..	0.029383702..	0.029383702..
6/19/2018									
6/20/2018		0.019801428..		0.019801428..		1.195	0.019801428..		
6/21/2018	0.0648				0.019801428..				
6/25/2018									
6/26/2018			0.0188 (J)						0.019801428..
6/27/2018								0.019801428..	

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-10	GWC-19	GWC-20	GWC-31	GWC-15	GWC-21	GWC-22	GWA-3 (bg)
3/22/2016								
3/23/2016								
3/24/2016								
3/28/2016								
3/29/2016								
3/30/2016	0.054648819..	0.054648819..	0.054648819..	0.054648819..	0.08335 (J)	0.054648819..		
3/31/2016							0.054648819..	0.054648819..
5/19/2016								
5/20/2016								
5/23/2016								
5/24/2016								
5/25/2016	0.044801429..			0.044801429..	0.0484 (J)			0.044801429..
5/26/2016		0.044801429..	0.044801429..			0.044801429..	0.044801429..	
7/21/2016								
7/22/2016								
7/25/2016		0.019801428..	0.019801428..					
7/26/2016					0.019801428..	0.019801428..	0.019801428..	
7/27/2016	0.019801428..			0.019801428..				0.019801428..
9/14/2016								
9/15/2016								
9/16/2016	0.023943807..							
9/19/2016		0.023943807..						
9/20/2016			0.023943807..		0.023943807..	0.023943807..	0.023943807..	
11/9/2016								
11/10/2016								
11/11/2016								
11/14/2016								
11/15/2016								
11/16/2016								
11/17/2016	0.029383702..	0.029383702..	0.029383702..		0.029383702..	0.029383702..	0.029383702..	
11/18/2016								
1/17/2017								
1/19/2017								
1/20/2017								
1/24/2017								
1/25/2017				0.029383702..				
1/26/2017								
1/31/2017								
2/1/2017	0.029648819..				0.02765 (J)			
2/2/2017		0.029648819..	0.029648819..			0.029648819..		
2/3/2017							0.029648819..	
3/16/2017								
3/17/2017								
3/22/2017								
3/23/2017				0.029648819..	0.04665 (J)			
3/24/2017	0.029648819..	0.029648819..						
3/28/2017			0.029648819..			0.029648819..	0.029648819..	
3/29/2017								
4/27/2017								
4/28/2017								
5/1/2017								
5/2/2017				0.019801428..				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWC-10	GWC-19	GWC-20	GWC-31	GWC-15	GWC-21	GWC-22	GWA-3 (bg)
5/3/2017	0.019801428..	0.019801428..			0.0288 (J)		0.019801428..	
5/4/2017			0.019801428..			0.019801428..		
7/18/2017								
7/19/2017				0.019801428..				
8/1/2017								0.023943807..
8/4/2017				0.023943807..				
10/3/2017								0.023943807..
10/4/2017	0.023943807..				0.04294 (J)			
10/5/2017		0.023943807..					0.023943807..	
10/6/2017			0.023943807..	0.023943807..		0.023943807..		
1/19/2018								
1/22/2018								
1/23/2018				0.029383702..				
1/24/2018								
1/25/2018	0.029383702..	0.029383702..			0.05638		0.029383702..	
6/19/2018								
6/20/2018					0.019801428..	0.019801428..	0.019801428..	0.019801428..
6/21/2018	0.019801428..	0.019801428..	0.019801428..					
6/25/2018								
6/26/2018								
6/27/2018				0.019801428..				

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-28 (bg)	GWA-29 (bg)	GWA-1 (bg)	GWC-33	GWA-2 (bg)	GWA-4 (bg)	GWC-32	GWC-27	GWC-30
3/22/2016	5.609	7.399							
3/23/2016			3.642	16.55	5.839	26.95	7.929	4.479	5.779
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016		6.417				34.94			
5/20/2016			2.121						4.707
5/23/2016	4.147								
5/24/2016				10.72	4.847		7.917	2.082	
5/25/2016									
5/26/2016									
7/21/2016		6.037	1.937			31.34			4.237
7/22/2016				10.34			8.437		
7/25/2016	3.737								
7/26/2016					4.437			2.737	
7/27/2016									
9/14/2016						30.31			
9/15/2016	1.81		0.01						
9/16/2016				10.31	2.91		8.01		
9/19/2016								0.51	
9/20/2016									2.51
11/9/2016	4.273								
11/10/2016					5.373	28.67			
11/11/2016			2.263					4.973	
11/14/2016									4.473
11/15/2016							8.573		
11/16/2016									
11/17/2016									
11/18/2016									
1/17/2017	4.073	5.373				27.67			
1/19/2017			2.263		5.873				
1/20/2017								3.873	
1/24/2017									4.773
1/25/2017				1.798346313..					
1/26/2017							14.67		
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017	5.449		3.469			29.75		3.749	
3/17/2017					6.149				5.649
3/22/2017									
3/23/2017				17.75					
3/24/2017							14.75		
3/28/2017									
3/29/2017									
4/27/2017	5.149	6.649				29.75			
4/28/2017			3.469		6.649			3.629	
5/1/2017				11.34					4.337
5/2/2017							16.34		



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-26	GWC-34	GWC-5	GWC-25	GWC-6	GWC-13	GWC-11	GWC-7
3/22/2016									
3/23/2016									
3/24/2016	4.719	4.469	6.019						
3/28/2016				26.65	15.05	13.55			
3/29/2016							6.659	17.75	73.55
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016	3.307		4.157	27.64					
5/24/2016						14.34			64.54
5/25/2016		3.017			8.537		5.397	19.84	
5/26/2016									
7/21/2016	3.037		3.937	22.34		13.34			
7/22/2016									57.34
7/25/2016								15.34	
7/26/2016		2.737					5.037		
7/27/2016					6.737				
9/14/2016									
9/15/2016	1.21		2.21	19.31		15.31	3.01		59.31
9/16/2016									
9/19/2016		0.81			7.71			17.31	
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016		3.473							
11/15/2016	3.473		4.173	21.67	11.67				
11/16/2016						15.67		16.67	60.67
11/17/2016							5.173		
11/18/2016									
1/17/2017									
1/19/2017		3.273							
1/20/2017									
1/24/2017					15.67				
1/25/2017			4.373						
1/26/2017	3.873			17.67		14.67			62.67
1/31/2017							5.773	9.673	
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017		4.449							
3/17/2017									
3/22/2017	4.549		5.449	19.75		14.75			58.75
3/23/2017					15.75		6.649	12.05	
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017		2.937	4.437						
5/2/2017	3.437			39.34	42.34	13.34		15.34	60.34



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-26	GWC-34	GWC-5	GWC-25	GWC-6	GWC-13	GWC-11	GWC-7
5/3/2017							5.437		
5/4/2017									
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
10/3/2017	1.41		2.51	26.31		13.31			56.31
10/4/2017		1.11						15.31	
10/5/2017					10.31		3.81		
10/6/2017									
1/19/2018									
1/22/2018		3.573							
1/23/2018	3.873		4.673	32.67		15.67			52.67
1/24/2018								13.67	
1/25/2018					13.67		6.273		
6/19/2018	3.337								
6/20/2018			4.537				5.337	14.34	
6/21/2018									
6/25/2018				36.34		13.34			55.34
6/26/2018									
6/27/2018		3.037			9.837				



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-9	GWC-23	GWC-12	GWC-8	GWC-24	GWC-18	GWC-19	GWC-31	GWC-20
5/3/2017			42.34	29.34		8.137	11.24		
5/4/2017		4.637			2.937				10.44
7/18/2017									
7/19/2017								11.34	
8/1/2017									
8/4/2017								12.31	
10/3/2017	18.31								
10/4/2017			39.31						
10/5/2017		2.91		27.31	0.71	6.61	6.81		
10/6/2017								12.31	8.71
1/19/2018									
1/22/2018									
1/23/2018								12.67	
1/24/2018	17.67		39.67	26.67					
1/25/2018		4.973			2.973	8.773	10.17		
6/19/2018									
6/20/2018		4.737							
6/21/2018	14.34			30.34		7.737	8.637		9.937
6/25/2018									
6/26/2018			39.34						
6/27/2018					1.717			10.94	















# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-22	GWC-23	GWC-24	GWC-25	GWC-26	GWC-27	GWC-30	GWC-31	GWC-32
3/22/2016									
3/23/2016						1.0825	1.3598		1.0533
3/24/2016					2.8217				
3/28/2016				5.992					
3/29/2016		1.9463							
3/30/2016			4.6264					1.9069	
3/31/2016	1.8479								
5/19/2016									
5/20/2016							1.4		
5/23/2016									
5/24/2016						1.08			1.1
5/25/2016		1.96	4.6		2.93			1.89	
5/26/2016	1.71			8.14					
7/21/2016							1.4		
7/22/2016									1.1
7/25/2016									
7/26/2016	1.8				3	1.1			
7/27/2016		2.1	4.9	6.3					
9/14/2016									
9/15/2016									
9/16/2016			3.6						1.1
9/19/2016				5.1	2.9	1			
9/20/2016	1.7	1.9					1.3		
11/9/2016									
11/10/2016									
11/11/2016						0.97 (J)			
11/14/2016					2.8		1.3		
11/15/2016				3.9					1.1
11/16/2016									
11/17/2016	1.7								
11/18/2016		1.8	3.4						
1/17/2017									
1/19/2017					2.8				
1/20/2017						0.99 (J)			
1/24/2017				3.6			1.3		
1/25/2017								1.9	
1/26/2017									1.1
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017	1.6	1.9	3.6						
3/16/2017					2.7	1			
3/17/2017							1.3		
3/22/2017									
3/23/2017				3.2					
3/24/2017									1.1
3/28/2017	1.5	1.8							
3/29/2017			3.2						
4/27/2017									
4/28/2017						0.96 (J)			
5/1/2017					2.8		1.3		
5/2/2017				3.5					0.99 (J)

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-22	GWC-23	GWC-24	GWC-25	GWC-26	GWC-27	GWC-30	GWC-31	GWC-32
5/3/2017	1.5								
5/4/2017		1.8	3.2						
7/18/2017									
7/19/2017								1.6	
8/1/2017									
8/4/2017									
8/24/2017									
10/3/2017						0.96 (J)			
10/4/2017					2.8		1.2		
10/5/2017	1.5	1.8	3.3	3.5					
10/6/2017								1.7	1.1
1/19/2018						0.91 (J)			
1/22/2018					2.6				
1/23/2018								1.4	<1
1/24/2018							1.1		
1/25/2018	1.3	1.6	3.1	3.6					
6/19/2018									
6/20/2018	1.5	1.9							
6/21/2018							1.2		
6/25/2018									
6/26/2018									0.89 (J)
6/27/2018			3.8	5.2	2.8	0.92 (J)		1.5	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-33	GWC-34	GWC-35	GWC-5	GWC-6	GWC-7	GWC-8	GWC-9
3/22/2016								
3/23/2016	2.2604							
3/24/2016		1.2259	4.4998					
3/28/2016				9.818	5.312			
3/29/2016							3.5914	7.395
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	32.8	3.16	16.4
5/25/2016								
5/26/2016								
7/21/2016		1.3	4.4	11	6.6			
7/22/2016						31		
7/25/2016								55
7/26/2016							5.9	
7/27/2016								
9/14/2016								
9/15/2016		1.2	4	10	6.1	29		
9/16/2016								
9/19/2016							5.4	73
9/20/2016								
11/9/2016								
11/10/2016								
11/11/2016								
11/14/2016								
11/15/2016		1.2	4.2	11				
11/16/2016					6.2	32	6.2	83
11/17/2016	2.5							
11/18/2016								
1/17/2017								
1/19/2017								
1/20/2017								
1/24/2017								
1/25/2017	2.1	1.2						
1/26/2017			4.2	9.2	5.8	29	3.6	
1/31/2017								17
2/1/2017								
2/2/2017								
2/3/2017								
3/16/2017								
3/17/2017								
3/22/2017		1.1	3.9	8.7	5.2	28		
3/23/2017	2						3.9	8.2
3/24/2017								
3/28/2017								
3/29/2017								
4/27/2017								
4/28/2017								
5/1/2017	2.1	1.1						
5/2/2017			4	13	5.1	26		11



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-27	GWC-32	GWC-33	GWA-4 (bg)	GWC-30	GWA-1 (bg)
3/22/2016	2.3	1.522							
3/23/2016			0.1117 (J)	0.56	2.205	2.9	0.1554 (J)	0.184 (J)	0.1031 (J)
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016	2.379						0.1069 (J)		
5/20/2016								0.1329 (J)	0.04894 (J)
5/23/2016		1.649							
5/24/2016			0.05194 (J)	0.2269 (J)	2.739				
5/25/2016									
5/26/2016									
7/21/2016	3.229						0.128937831..	0.1389 (J)	0.128937831..
7/22/2016					3.529				
7/25/2016		1.729							
7/26/2016			0.128937831..	1.229					
7/27/2016									
9/14/2016							0.026658615..		
9/15/2016		1.527							0.026658615..
9/16/2016			0.026658615..		3.427				
9/19/2016				0.5667					
9/20/2016								0.01866 (J)	
11/9/2016		1.631							
11/10/2016			0.031301520..				0.031301520..		
11/11/2016				1.131					0.031301520..
11/14/2016							0.031301520..		
11/15/2016					3.131				
11/16/2016									
11/17/2016						4.031			
11/18/2016									
1/17/2017	2.531	1.531					0.031301520..		
1/19/2017			0.031301520..						0.031301520..
1/20/2017				0.7613					
1/24/2017								0.0253 (J)	
1/25/2017						5.531			
1/26/2017					3.831				
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017		1.784		0.4041			0.184103901..		0.184103901..
3/17/2017			0.184103901..					0.1681 (J)	
3/22/2017									
3/23/2017						3.184			
3/24/2017					3.284				
3/28/2017									
3/29/2017									
4/27/2017	2.584	1.484					0.184103901..		
4/28/2017			0.184103901..	0.9141					0.184103901..
5/1/2017						4.229		0.1209 (J)	
5/2/2017					3.529				

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-27	GWC-32	GWC-33	GWA-4 (bg)	GWC-30	GWA-1 (bg)
5/3/2017									
5/4/2017									
7/18/2017	2.229								
7/19/2017						3.429			
8/1/2017	2.427								
8/4/2017						3.927			
8/24/2017						4.127			
10/3/2017	2.227	1.627	0.026658615..	0.1067 (J)			0.026658615..		
10/4/2017								0.01766 (J)	0.026658615..
10/5/2017						3.827			
10/6/2017					3.427				
1/19/2018	2.031	1.331	0.031301520..	0.5313					0.031301520..
1/22/2018							0.031301520..		
1/23/2018					3.031	3.331			
1/24/2018								0.031301520..	
1/25/2018									
6/19/2018	2.329	1.629	0.128937831..				0.1129 (J)		0.128937831..
6/20/2018									
6/21/2018								0.128937831..	
6/25/2018									
6/26/2018					2.629	2.129			
6/27/2018				0.7589					

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-26	GWC-35	GWC-34	GWC-5	GWC-6	GWC-25	GWC-8	GWC-23	GWC-9
3/22/2016									
3/23/2016									
3/24/2016	0.1159 (J)	0.1237 (J)	0.2494 (J)						
3/28/2016				0.1957 (J)	0.1593 (J)	0.1383 (J)			
3/29/2016							0.1539 (J)	0.1149 (J)	0.1512 (J)
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016		0.06324 (J)	0.1839 (J)	0.1311 (J)					
5/24/2016					0.1099 (J)		0.1009 (J)		0.08894 (J)
5/25/2016	0.05714 (J)							0.05744 (J)	
5/26/2016						0.06294 (J)			
7/21/2016		0.128937831..	0.2189 (J)	0.1389 (J)	0.1169 (J)				
7/22/2016									
7/25/2016									0.1249 (J)
7/26/2016	0.128937831..						0.1209 (J)		
7/27/2016						0.128937831..		0.128937831..	
9/14/2016									
9/15/2016		0.026658615..	0.08666 (J)	0.01066 (J)	0.01066 (J)				
9/16/2016									
9/19/2016	0.026658615..					0.026658615..	0.026658615..		0.026658615..
9/20/2016								0.026658615..	
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016	0.031301520..								
11/15/2016		0.031301520..	0.0713 (J)	0.031301520..		0.031301520..			
11/16/2016					0.031301520..		0.031301520..		0.031301520..
11/17/2016									
11/18/2016								0.031301520..	
1/17/2017									
1/19/2017	0.031301520..								
1/20/2017									
1/24/2017						0.031301520..			
1/25/2017			0.0913 (J)						
1/26/2017		0.031301520..		0.031301520..	0.031301520..		0.031301520..		
1/31/2017									0.031301520..
2/1/2017									
2/2/2017									
2/3/2017								0.184103901..	
3/16/2017	0.184103901..								
3/17/2017									
3/22/2017		0.184103901..	0.2241 (J)	0.184103901..	0.184103901..				
3/23/2017						0.184103901..	0.184103901..		0.2041 (J)
3/24/2017									
3/28/2017								0.184103901..	
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	0.128937831..		0.1889 (J)						
5/2/2017		0.128937831..		0.1289 (J)	0.128937831..	0.128937831..			0.128937831..



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWC-26	GWC-35	GWC-34	GWC-5	GWC-6	GWC-25	GWC-8	GWC-23	GWC-9
5/3/2017							0.128937831..		
5/4/2017								0.128937831..	
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
8/24/2017									
10/3/2017		0.026658615..	0.09666 (J)	0.01566 (J)	0.026658615..				0.026658615..
10/4/2017	0.026658615..								
10/5/2017						0.026658615..	0.01166 (J)	0.026658615..	
10/6/2017									
1/19/2018									
1/22/2018	0.031301520..								
1/23/2018		0.031301520..	0.0613 (J)	0.0163 (J)	0.031301520..				
1/24/2018							0.031301520..		0.031301520..
1/25/2018						0.031301520..		0.031301520..	
6/19/2018		0.128937831..							
6/20/2018			0.2089 (J)					0.128937831..	
6/21/2018							0.128937831..		0.128937831..
6/25/2018				0.1259 (J)	0.128937831..				
6/26/2018									
6/27/2018	0.128937831..					0.128937831..			

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:06 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-7	GWC-11	GWC-12	GWC-13	GWC-19	GWC-10	GWC-17	GWC-21	GWC-14
3/22/2016									
3/23/2016									
3/24/2016									
3/28/2016									
3/29/2016	0.302 (J)	0.2218 (J)	0.2777 (J)	0.1925 (J)					
3/30/2016					0.121 (J)	1.285	0.1263 (J)	0.0978 (J)	0.1196 (J)
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016									
5/24/2016	0.2449 (J)								
5/25/2016		0.181 (J)	0.2086 (J)	0.1291 (J)		1.369	0.07394 (J)		0.05544 (J)
5/26/2016					0.05994 (J)			0.04294 (J)	
7/21/2016									
7/22/2016	0.2589		0.2489						
7/25/2016		0.2389			0.128937831..				
7/26/2016				0.1489 (J)				0.128937831..	0.1289 (J)
7/27/2016						1.529	0.128937831..		
9/14/2016									
9/15/2016	0.1467		0.1067 (J)	0.02666 (J)					0.026658615..
9/16/2016						1.227			
9/19/2016		0.07666 (J)			0.026658615..		0.026658615..		
9/20/2016								0.026658615..	
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016									
11/15/2016									
11/16/2016	0.1513	0.0713 (J)	0.0913 (J)						
11/17/2016				0.0233 (J)	0.031301520..	0.6913	0.031301520..	0.031301520..	0.031301520..
11/18/2016									
1/17/2017									
1/19/2017									
1/20/2017									
1/24/2017									
1/25/2017									
1/26/2017	0.1613								
1/31/2017		0.031301520..	0.1213 (J)	0.0413 (J)					
2/1/2017						1.384	0.184103901..		0.184103901..
2/2/2017					0.184103901..			0.184103901..	
2/3/2017									
3/16/2017									
3/17/2017									
3/22/2017	0.2841								
3/23/2017		0.1811 (J)	0.2541 (J)	0.1721 (J)					0.184103901..
3/24/2017					0.184103901..	1.384	0.184103901..		
3/28/2017								0.184103901..	
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017	0.2389	0.1389 (J)							





# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-24	GWC-20	GWC-31	GWC-18	GWC-15	GWC-16	GWC-22	GWA-3 (bg)
5/3/2017				0.128937831..	0.128937831..	0.128937831..	0.128937831..	
5/4/2017	0.128937831..	0.128937831..						
7/18/2017								
7/19/2017			1.629					
8/1/2017								
8/4/2017								
8/24/2017								
10/3/2017								0.026658615..
10/4/2017					0.026658615..			
10/5/2017	0.026658615..			0.026658615..		0.026658615..	0.026658615..	
10/6/2017		0.026658615..	1.527					
1/19/2018								
1/22/2018								
1/23/2018			1.431					
1/24/2018								
1/25/2018	0.031301520..			0.031301520..	0.031301520..	0.031301520..	0.031301520..	
6/19/2018								
6/20/2018					0.1219 (J)	0.128937831..	0.128937831..	0.128937831..
6/21/2018		0.128937831..		0.128937831..				
6/25/2018								
6/26/2018								
6/27/2018	0.128937831..		1.629					

# Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 8:20 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (S.U.)	GWA-1	5.861	4.965	6/19/2018	5.201	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-2	6.032	5.384	6/19/2018	5.84	No	9	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWA-28	6.799	5.592	6/19/2018	5.997	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-29	6.418	5.523	6/19/2018	5.792	No	8	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-4	6.66	5.963	6/19/2018	6.134	No	8	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-10	7.052	5.712	6/21/2018	5.76	No	8	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-11	6.538	5.733	6/20/2018	5.929	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-12	7.879	6.518	6/26/2018	7.225	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-13	7.532	6.163	6/20/2018	6.794	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-14	6.266	4.833	6/20/2018	4.971	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
<b>pH (S.U.)</b>	<b>GWC-15</b>	<b>6.901</b>	<b>6.279</b>	<b>6/20/2018</b>	<b>7.129</b>	<b>Yes</b>	<b>9</b>	<b>0</b>	<b>No</b>	<b>0.0001297</b>	<b>Param Intra 1 of 3 De...</b>
pH (S.U.)	GWC-16	6.446	5.744	6/20/2018	6.08	No	8	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-17	6.439	5.99	6/26/2018	6.1	No	9	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-18	6.184	5.79	6/21/2018	5.87	No	8	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-19	6.348	5.683	6/21/2018	5.836	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-20	7.121	6.08	6/21/2018	6.65	No	8	0	n/a	0.01182	NP Intra (normality) ...
pH (S.U.)	GWC-21	6.381	4.954	6/20/2018	5.584	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-22	6.856	6.357	6/20/2018	6.429	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-23	7.205	5.015	6/20/2018	5.86	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-24	7.997	4.166	6/27/2018	5.51	No	8	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-25	7.412	5.006	6/27/2018	6.516	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-26	6.004	5.459	6/27/2018	5.526	No	9	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-27	6.046	5.179	6/27/2018	5.591	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-30	6.586	5.574	6/21/2018	5.998	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-31	6.538	5.676	6/27/2018	5.99	No	8	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-32	6.455	5.918	6/26/2018	5.97	No	8	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-33	6.91	5.861	6/26/2018	6.056	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-34	6.595	5.295	6/20/2018	5.995	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-35	6.229	5.044	6/19/2018	5.585	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-5	7.504	5.579	6/25/2018	6.42	No	9	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-6	6.642	5.542	6/25/2018	5.86	No	9	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-7	6.539	6.191	6/25/2018	6.26	No	9	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-8	6.594	5.708	6/21/2018	5.902	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-9	6.416	5.43	6/21/2018	5.725	No	8	0	No	0.0001297	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-1	0.5	n/a	6/19/2018	0.5	No	8	100	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWA-2	1.902	n/a	6/19/2018	1.373	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-28	1.762	n/a	6/19/2018	0.8493	No	8	12.5	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-29	14.97	n/a	6/19/2018	6.047	No	7	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-4	15.26	n/a	6/19/2018	10.03	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-10	51.92	n/a	6/21/2018	25.69	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-11	3.21	n/a	6/20/2018	1.07666...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-12	25.25	n/a	6/26/2018	22.98	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-13	2.937	n/a	6/20/2018	2.463	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-14	39.39	n/a	6/20/2018	13.86	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
<b>Sulfate (mg/L)</b>	<b>GWC-15</b>	<b>1.765</b>	<b>n/a</b>	<b>6/20/2018</b>	<b>2.009</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0002595</b>	<b>Param Intra 1 of 3 De...</b>
Sulfate (mg/L)	GWC-16	0.5273	n/a	6/20/2018	0.51359...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-17	1.037	n/a	6/26/2018	0.5696	No	8	50	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-18	0.6028	n/a	6/21/2018	0.49567...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-19	7.373	n/a	6/21/2018	2.04736...	No	8	37.5	No	0.0002595	Param Intra 1 of 3 De...
<b>Sulfate (mg/L)</b>	<b>GWC-20</b>	<b>1.277</b>	<b>n/a</b>	<b>6/21/2018</b>	<b>1.3</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0002595</b>	<b>Param Intra 1 of 3</b>

## Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 8:20 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	GWC-21	0.5	n/a	6/20/2018	0.5ND	No	8	87.5	n/a	0.005912	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-22	0.5398	n/a	6/20/2018	0.47784...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-23	0.5241	n/a	6/20/2018	0.52407...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-24	0.9096	n/a	6/27/2018	0.51836...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-25	37.97	n/a	6/27/2018	14.8	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-26	0.5191	n/a	6/27/2018	0.51909...	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-27	3.983	n/a	6/27/2018	1.61	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-30	1.462	n/a	6/21/2018	1.014	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-31	32.6	n/a	6/27/2018	14	No	4	0	No	0.0002595	Param Intra 1 of 3
Sulfate (mg/L)	GWC-32	16.65	n/a	6/26/2018	11.37	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-33	49.71	n/a	6/26/2018	13.37	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-34	1.899	n/a	6/20/2018	1.667	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-35	3.025	n/a	6/19/2018	2.574	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-5	26.47	n/a	6/25/2018	26.47	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-6	18.91	n/a	6/25/2018	11.35	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-7	96.96	n/a	6/25/2018	62	No	7	0	No	0.0002595	Param Intra 1 of 3
Sulfate (mg/L)	GWC-8	42.96	n/a	6/21/2018	16.79	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-9	43.92	n/a	6/21/2018	17.33	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-1	23.98	n/a	6/19/2018	13.33	No	8	50	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-2	82.83	n/a	6/19/2018	7.40909...	No	8	25	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-28	121.7	n/a	6/19/2018	66.7	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-29	115.9	n/a	6/19/2018	49.65	No	7	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-4	207.5	n/a	6/19/2018	148.4	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-10	275.1	n/a	6/21/2018	58.3	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-11	261	n/a	6/20/2018	131.2	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-12	249.7	n/a	6/26/2018	216.8	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-13	88.41	n/a	6/20/2018	22.39	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-14	498.6	n/a	6/20/2018	325.9	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-15	113.2	n/a	6/20/2018	63.95	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-16	150	n/a	6/20/2018	86.57	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-17	155.3	n/a	6/26/2018	81.98	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-18	108.8	n/a	6/21/2018	84.23	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-19	100.5	n/a	6/21/2018	80.57	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-20	110.6	n/a	6/21/2018	78	No	8	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-21	69.48	n/a	6/20/2018	36	No	8	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-22	149.2	n/a	6/20/2018	89.64	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-23	68.01	n/a	6/20/2018	46.34	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-24	39.31	n/a	6/27/2018	22.09	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-25	117.9	n/a	6/27/2018	71.84	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-26	77.3	n/a	6/27/2018	17.86	No	8	12.5	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-27	77.3	n/a	6/27/2018	54.65	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-30	82.01	n/a	6/21/2018	34.14	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-31	195.3	n/a	6/27/2018	92	No	4	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-32	125.4	n/a	6/26/2018	79.11	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-33	160.8	n/a	6/26/2018	106.1	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-34	101	n/a	6/20/2018	12.3068...	No	8	12.5	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-35	77.75	n/a	6/19/2018	30.77	No	8	12.5	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-5	236.6	n/a	6/25/2018	192.6	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-6	179.4	n/a	6/25/2018	113.5	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-7	557.6	n/a	6/25/2018	413.2	No	8	0	No	0.0002595	Param Intra 1 of 3 De...

# Prediction Limit

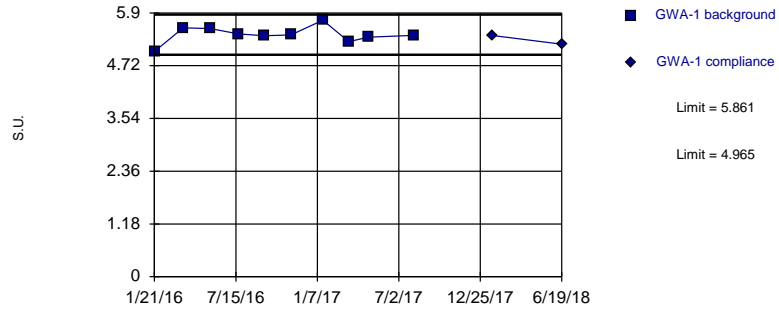
Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 8:20 AM

<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>
Total Dissolved Solids (mg/L)	GWC-8	282.9	n/a	6/21/2018	207.8	No	8	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-9	362.9	n/a	6/21/2018	176.8	No	8	0	No	0.0002595	Param Intra 1 of 3 De...



Within Limits

pH  
Intrawell Parametric

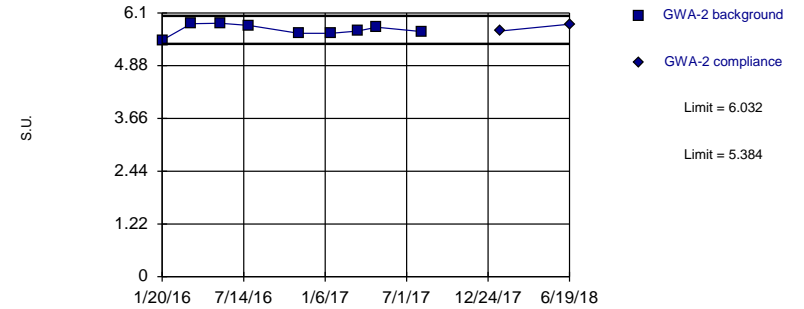


Background Data Summary: Mean=5.413, Std. Dev.=0.1879, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9543, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

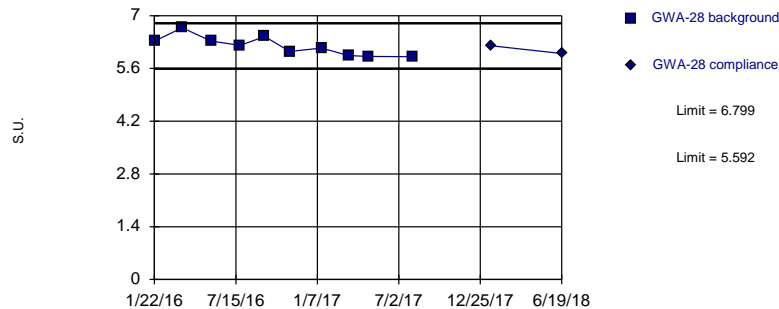


Background Data Summary: Mean=5.708, Std. Dev.=0.1266, n=9. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9321, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

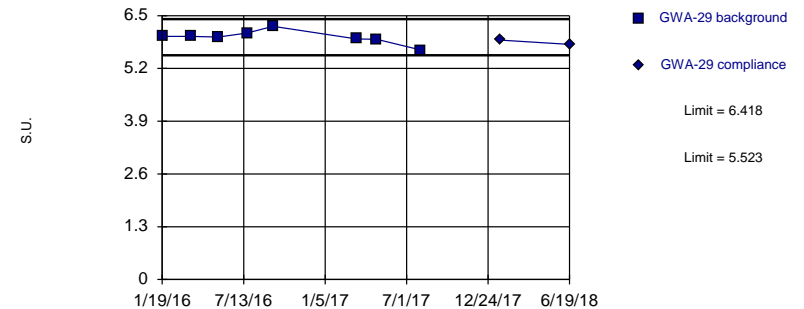


Background Data Summary: Mean=6.195, Std. Dev.=0.2532, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9317, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

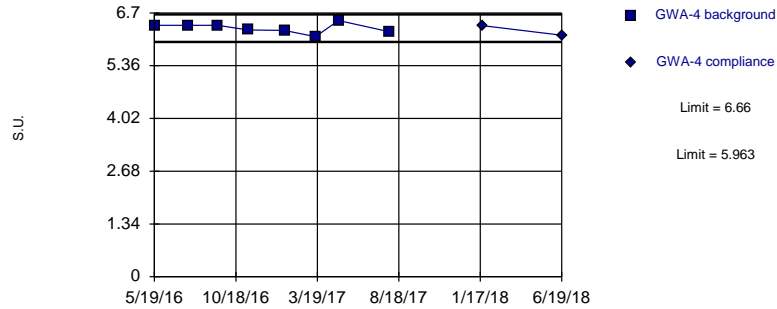


Background Data Summary: Mean=5.97, Std. Dev.=0.1637, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

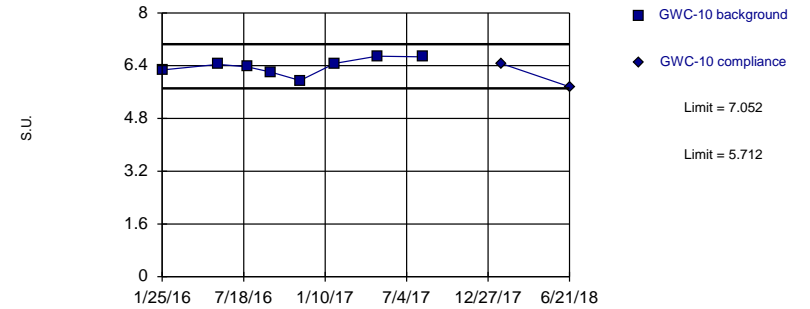


Background Data Summary: Mean=6.312, Std. Dev.=0.1275, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9542, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

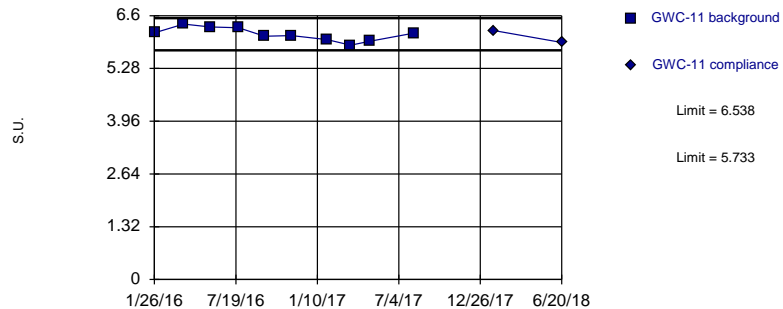


Background Data Summary: Mean=6.382, Std. Dev.=0.2451, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9582, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

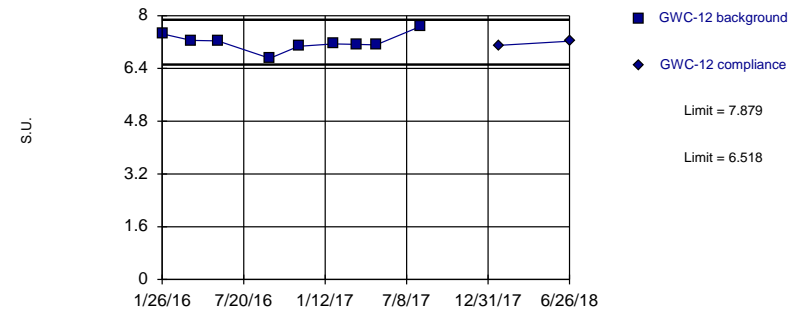


Background Data Summary: Mean=6.135, Std. Dev.=0.1685, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9749, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

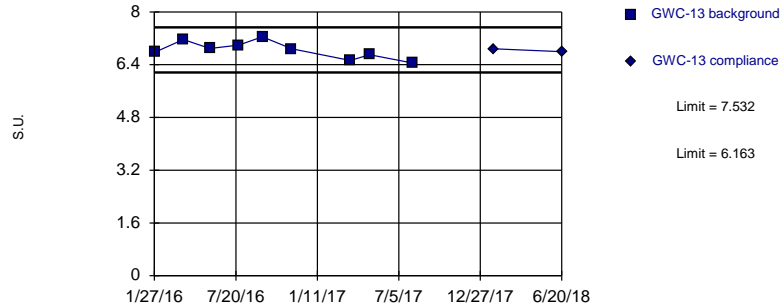


Background Data Summary: Mean=7.198, Std. Dev.=0.2659, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9402, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

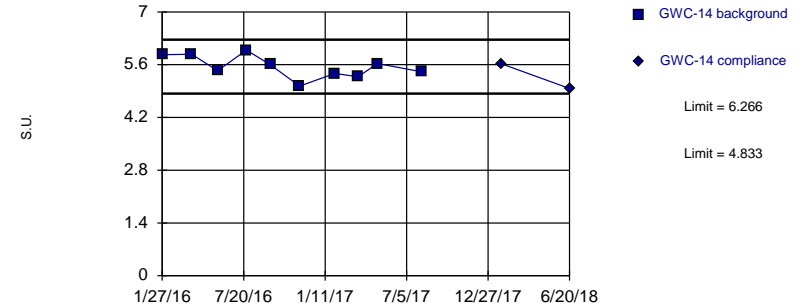


Background Data Summary: Mean=6.848, Std. Dev.=0.2675, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9694, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

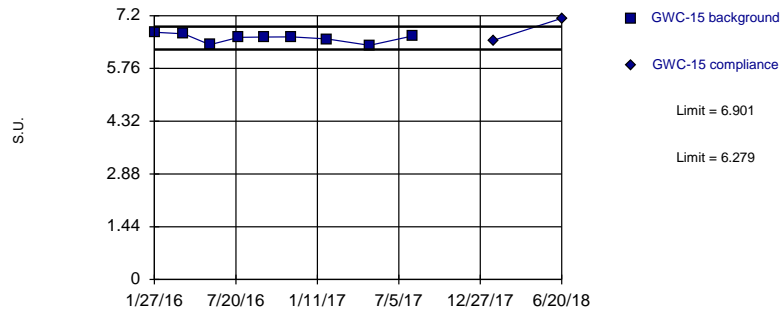


Background Data Summary: Mean=5.549, Std. Dev.=0.3003, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9636, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limits

pH  
Intrawell Parametric

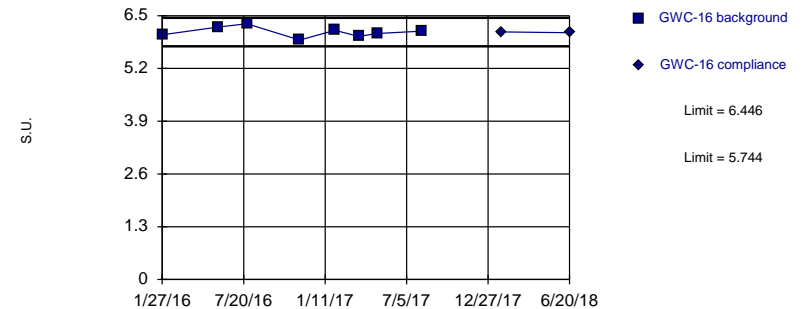


Background Data Summary: Mean=6.59, Std. Dev.=0.1216, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9019, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

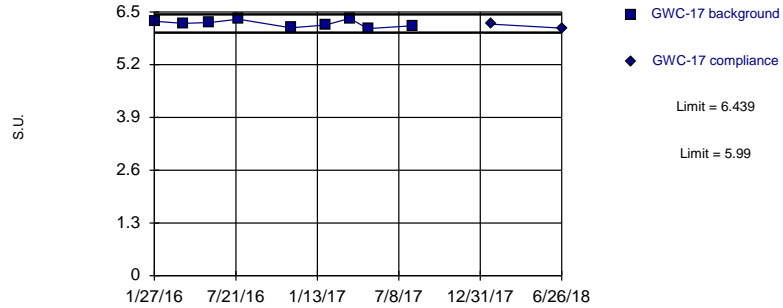


Background Data Summary: Mean=6.095, Std. Dev.=0.1285, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9916, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

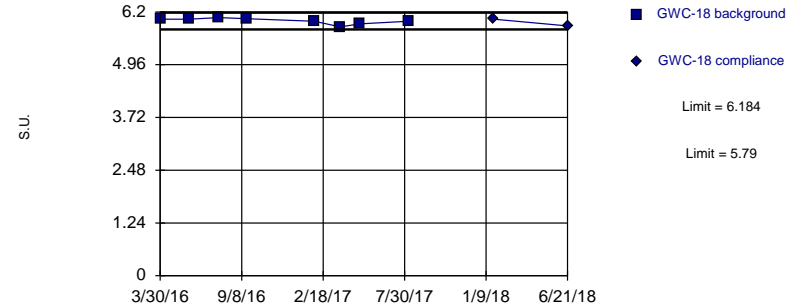


Background Data Summary: Mean=6.215, Std. Dev.=0.08769, n=9. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9614, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

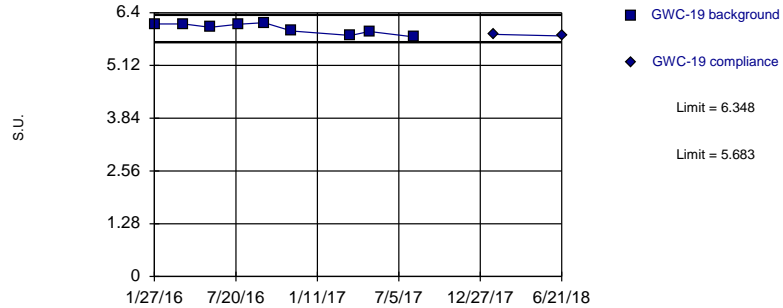


Background Data Summary: Mean=5.987, Std. Dev.=0.07194, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9006, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

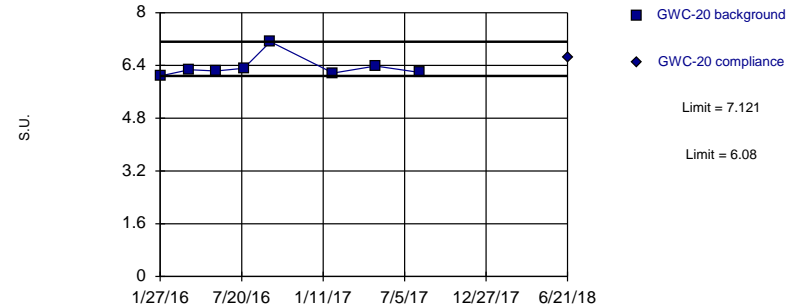


Background Data Summary: Mean=6.015, Std. Dev.=0.1299, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8875, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Non-parametric

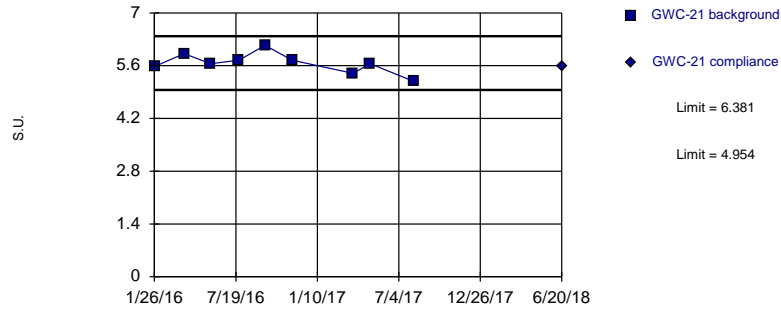


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.02358. Individual comparison alpha = 0.01182 (1 of 3). Insufficient data to test for seasonality or deseasonalize.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

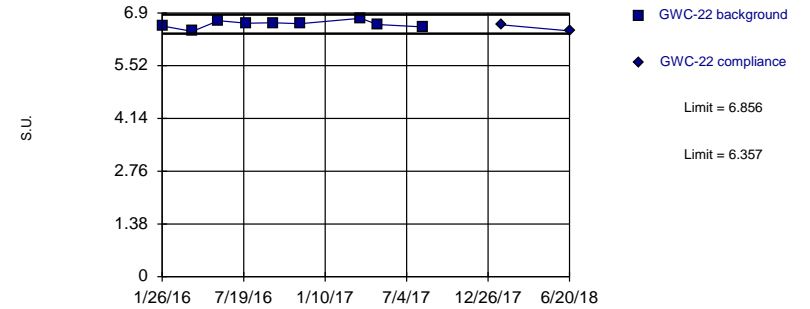


Background Data Summary: Mean=5.668, Std. Dev.=0.2788, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9758, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

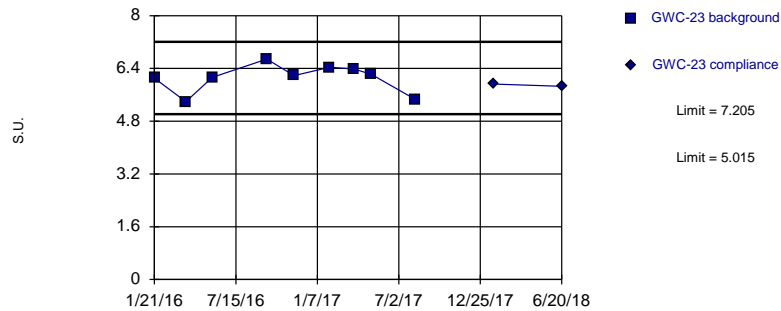


Background Data Summary: Mean=6.607, Std. Dev.=0.09762, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9739, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

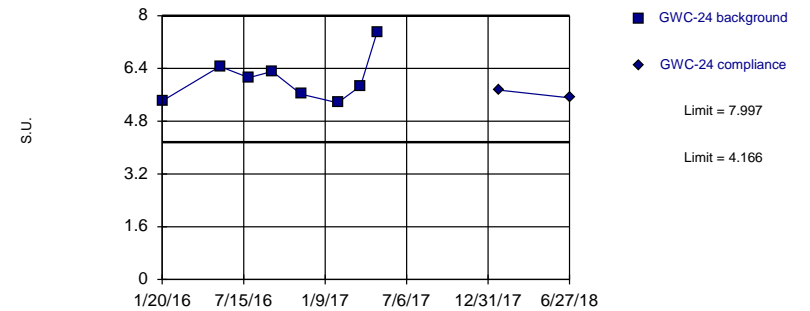


Background Data Summary: Mean=6.11, Std. Dev.=0.4279, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8867, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

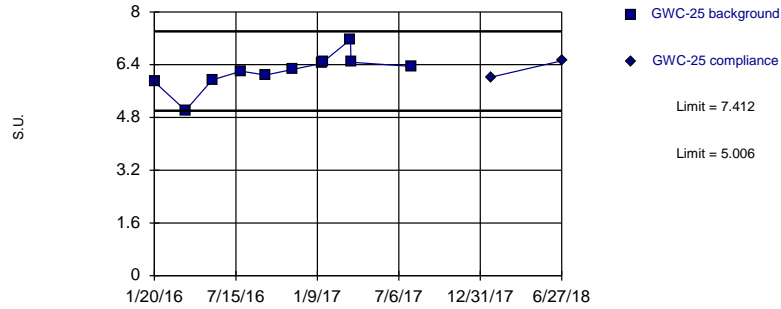


Background Data Summary: Mean=6.081, Std. Dev.=0.7008, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9026, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

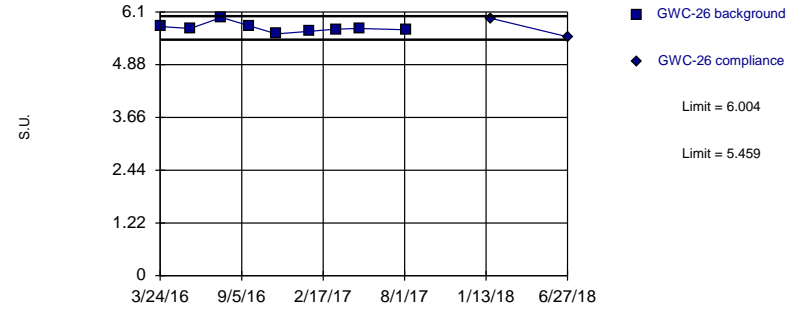


Background Data Summary: Mean=6.209, Std. Dev.=0.5255, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.914, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

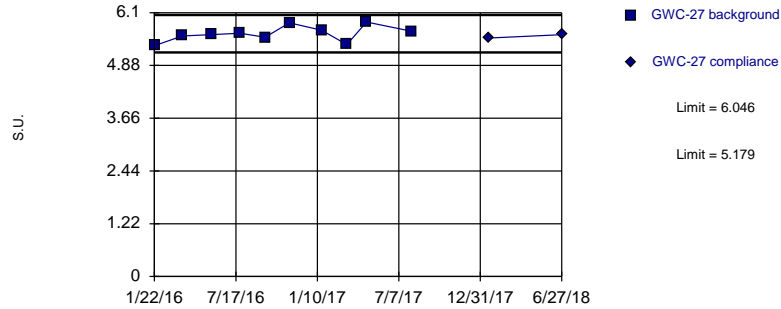


Background Data Summary: Mean=5.731, Std. Dev.=0.1065, n=9. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8735, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

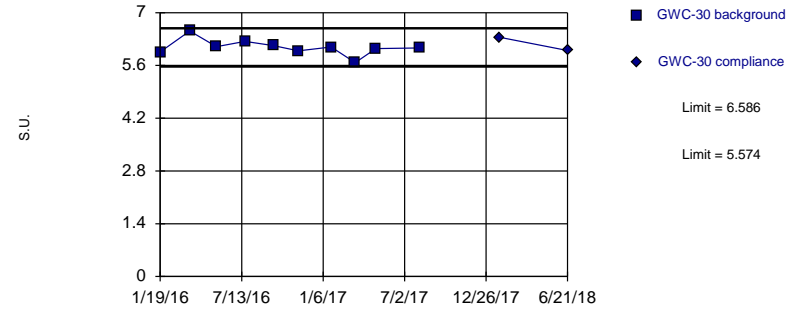


Background Data Summary: Mean=5.612, Std. Dev.=0.1815, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9463, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

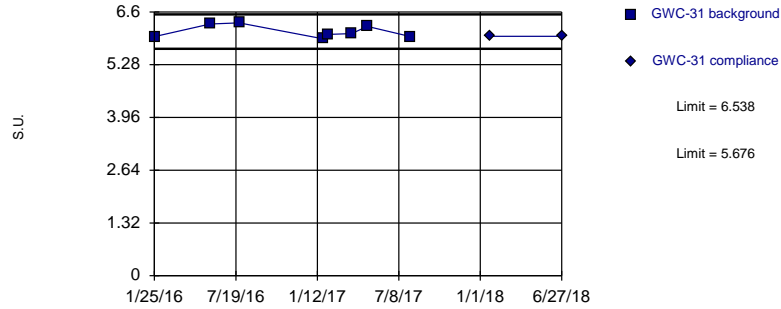


Background Data Summary: Mean=6.08, Std. Dev.=0.2122, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9212, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

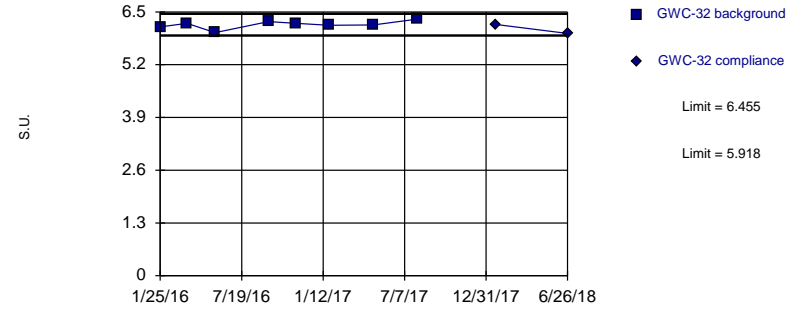


Background Data Summary: Mean=6.107, Std. Dev.=0.1577, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8673, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

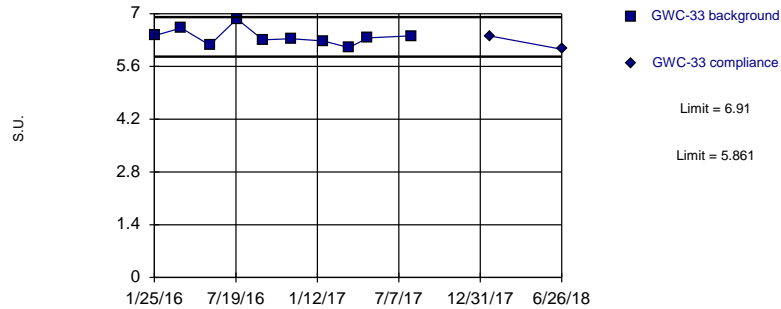


Background Data Summary: Mean=6.186, Std. Dev.=0.0983, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9382, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

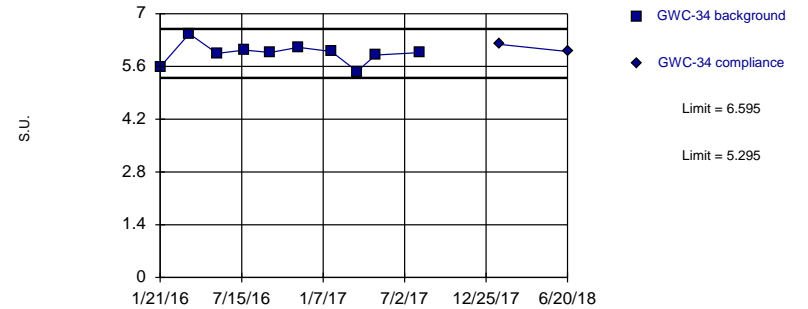


Background Data Summary: Mean=6.385, Std. Dev.=0.2198, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9149, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

### pH Intrawell Parametric

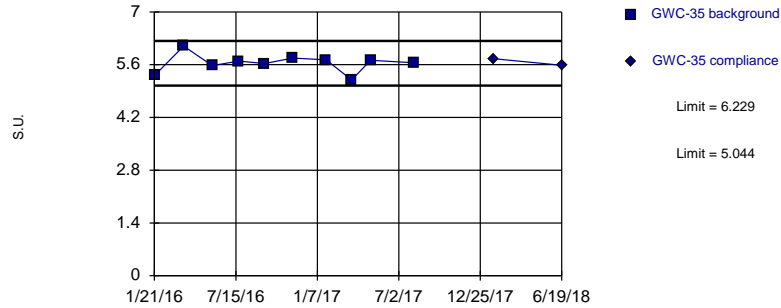


Background Data Summary: Mean=5.945, Std. Dev.=0.2726, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9072, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

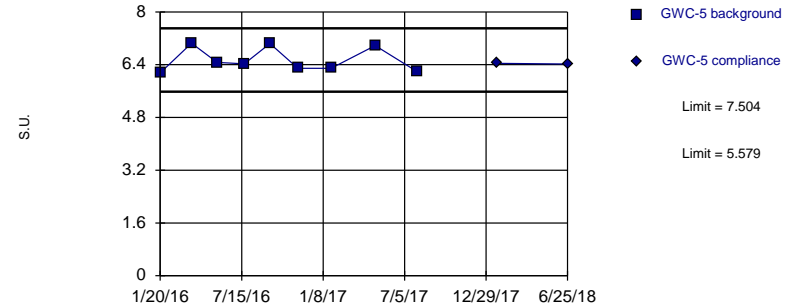


Background Data Summary: Mean=5.637, Std. Dev.=0.2484, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9226, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

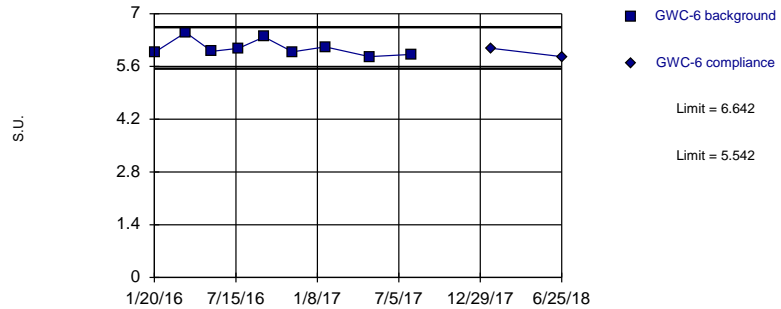


Background Data Summary: Mean=6.542, Std. Dev.=0.3761, n=9. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8199, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

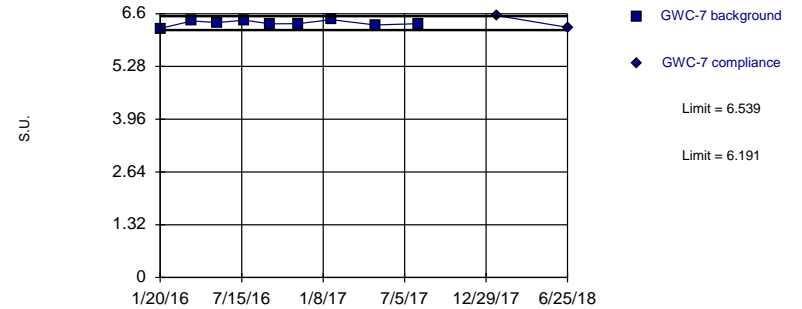


Background Data Summary: Mean=6.092, Std. Dev.=0.2149, n=9. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8657, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric



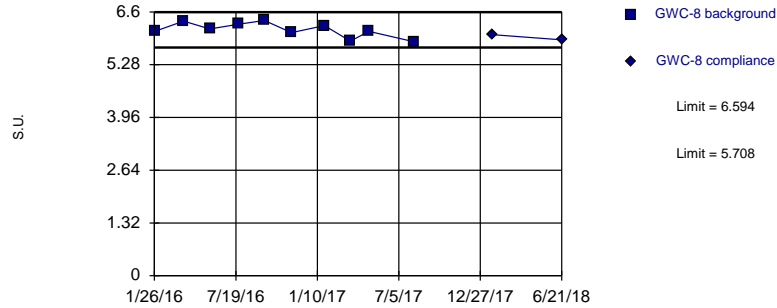
Background Data Summary: Mean=6.365, Std. Dev.=0.06791, n=9. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9294, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Within Limits

pH  
Intrawell Parametric

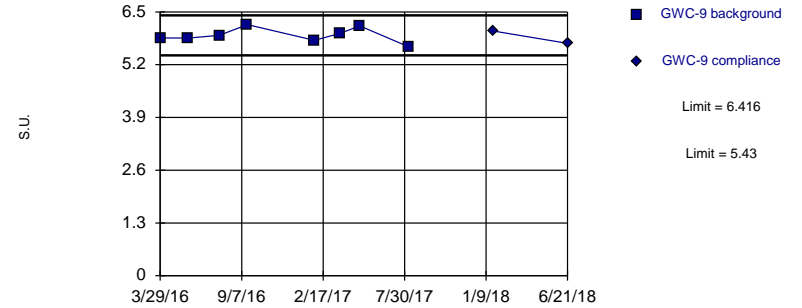


Background Data Summary: Mean=6.151, Std. Dev.=0.1856, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9235, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

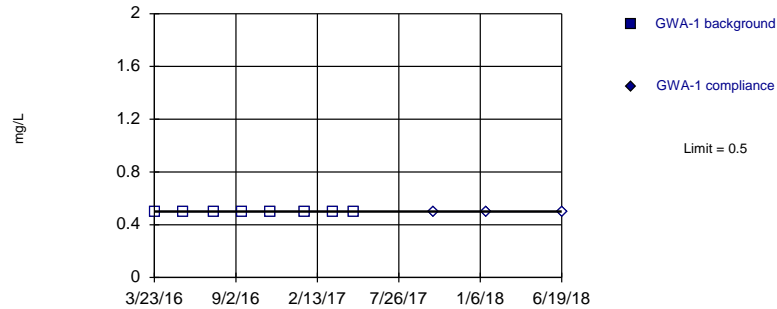


Background Data Summary: Mean=5.923, Std. Dev.=0.1805, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9485, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

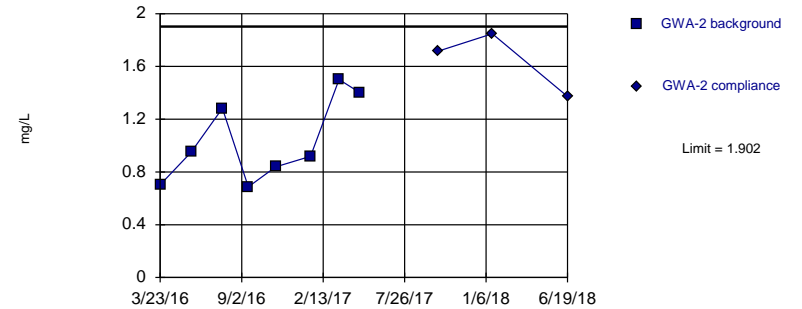


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 100% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

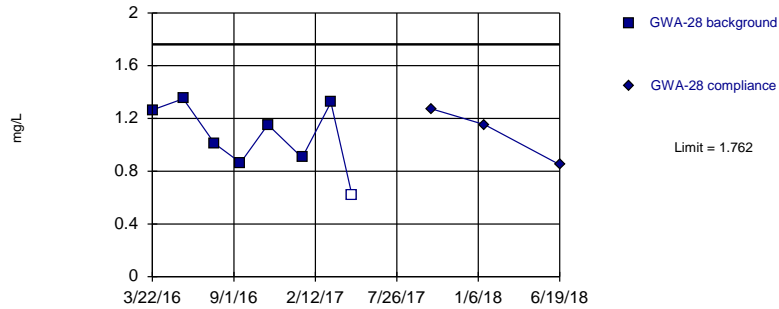


Background Data Summary: Mean=1.035, Std. Dev.=0.3173, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8931, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

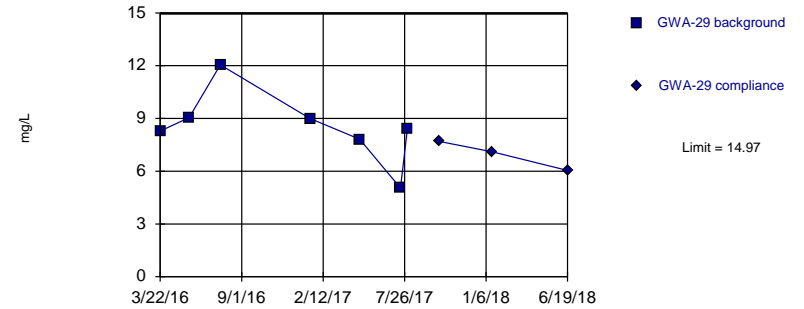


Background Data Summary: Mean=1.061, Std. Dev.=0.2564, n=8, 12.5% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9355, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

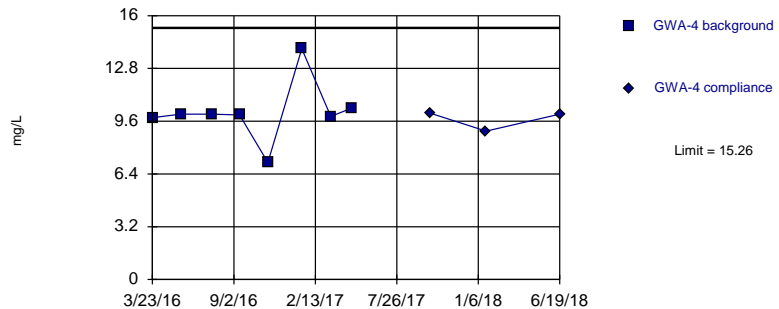


Background Data Summary: Mean=8.518, Std. Dev.=2.065, n=7. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9148, critical = 0.73. Kappa = 3.125 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

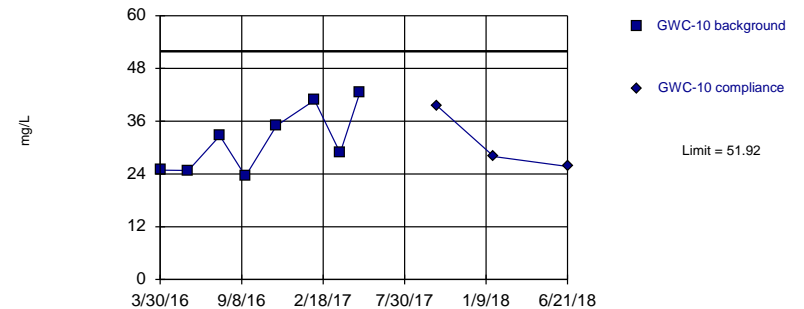


Background Data Summary: Mean=10.15, Std. Dev.=1.868, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.788, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

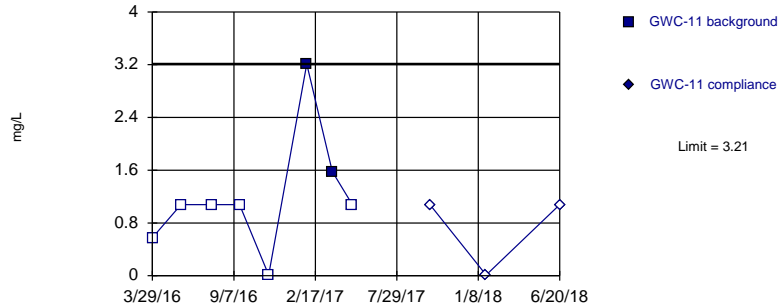
Within Limit

Sulfate  
Intrawell Parametric



Within Limit

Sulfate  
Intrawell Non-parametric

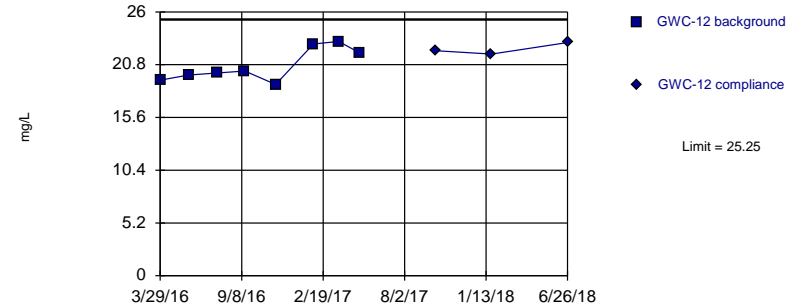


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

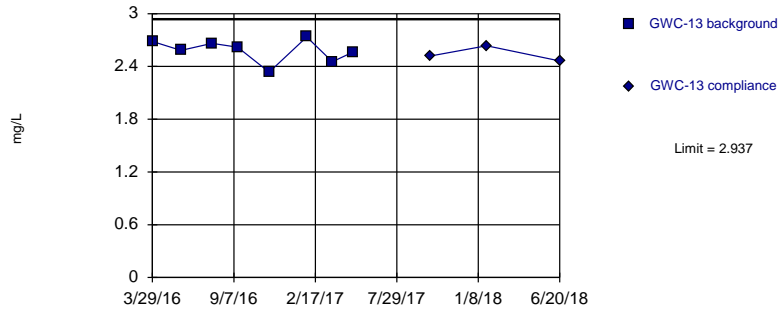


Background Data Summary: Mean=20.75, Std. Dev.=1.648, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8795, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

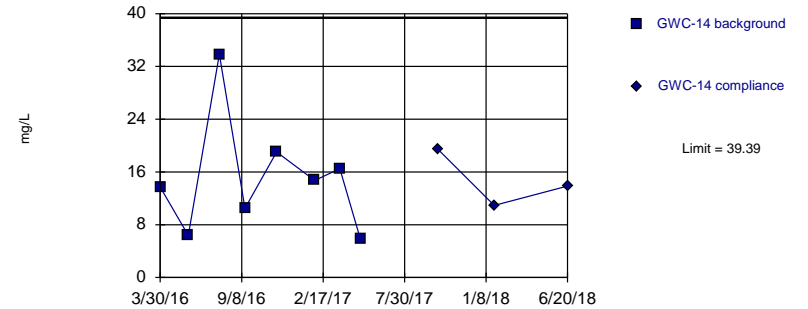


Background Data Summary: Mean=2.579, Std. Dev.=0.1308, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9351, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

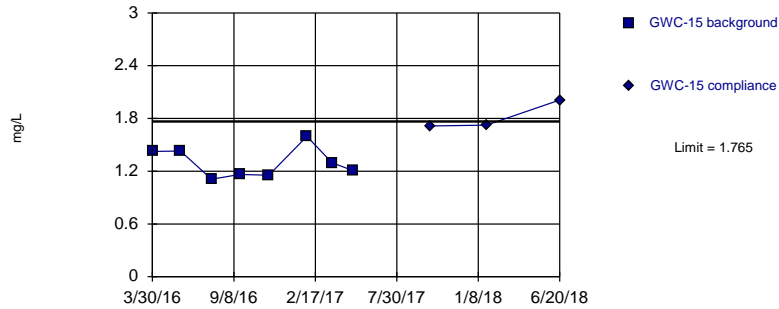


Background Data Summary: Mean=15.07, Std. Dev.=8.901, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8778, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limit

Sulfate  
Intrawell Parametric

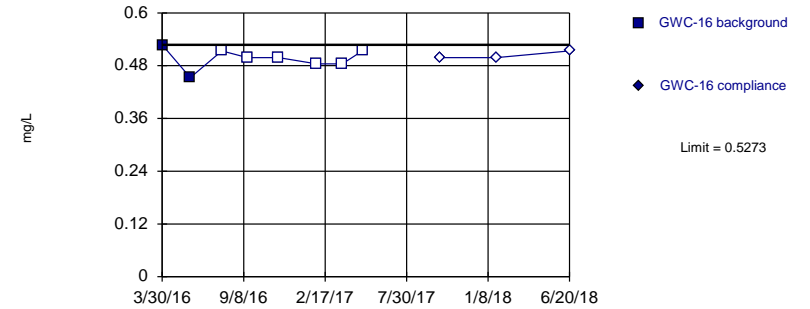


Background Data Summary: Mean=1.298, Std. Dev.=0.1709, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9132, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric



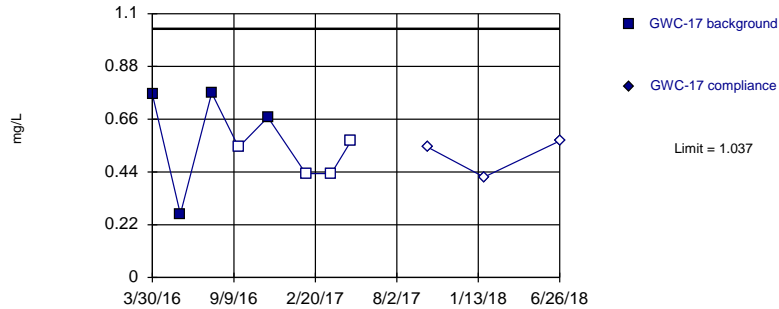
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Hollow symbols indicate censored values.

Within Limit

Sulfate  
Intrawell Parametric



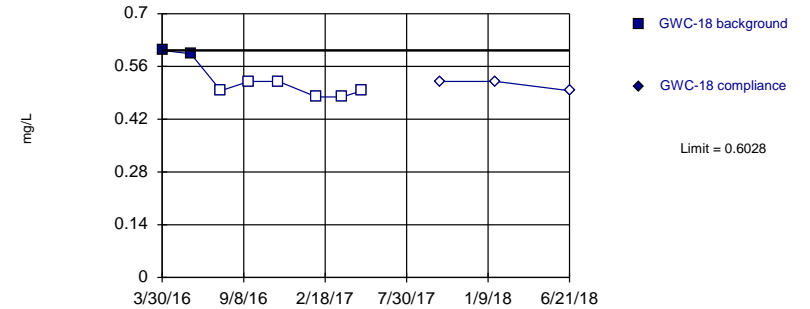
Background Data Summary: Mean=0.5556, Std. Dev.=0.1761, n=8, 50% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9448, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Hollow symbols indicate censored values.

Within Limit

Sulfate  
Intrawell Non-parametric

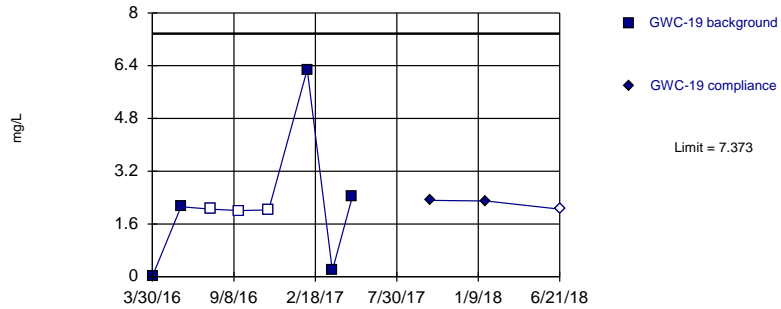


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Sulfate**  
Intrawell Parametric

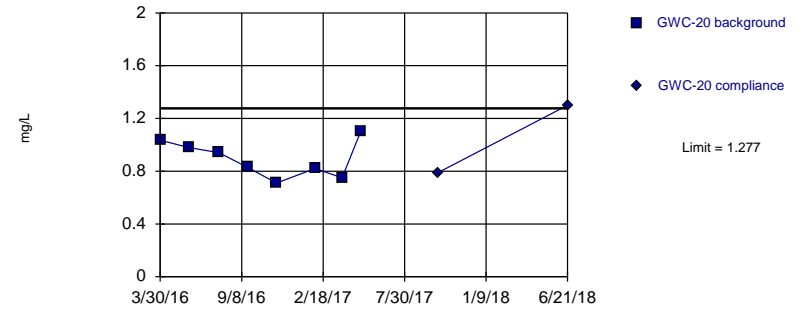


Background Data Summary: Mean=2.139, Std. Dev.=1.915, n=8, 37.5% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7991, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limit

**Sulfate**  
Intrawell Parametric

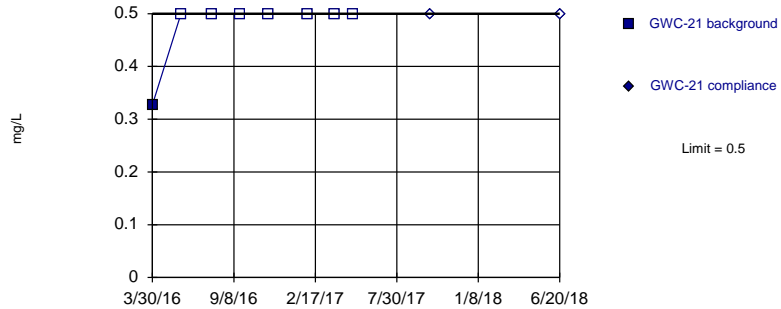


Background Data Summary: Mean=0.8956, Std. Dev.=0.1394, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9546, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Sulfate**  
Intrawell Non-parametric

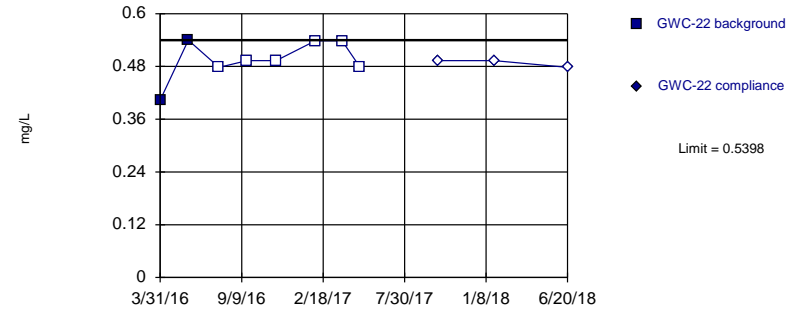


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Insufficient data to test for seasonality or deseasonalize.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Sulfate**  
Intrawell Non-parametric

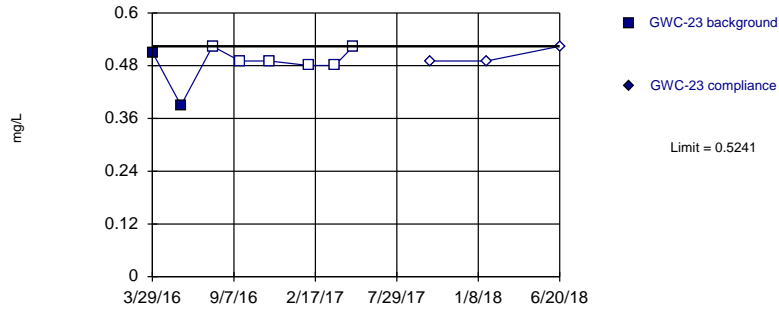


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

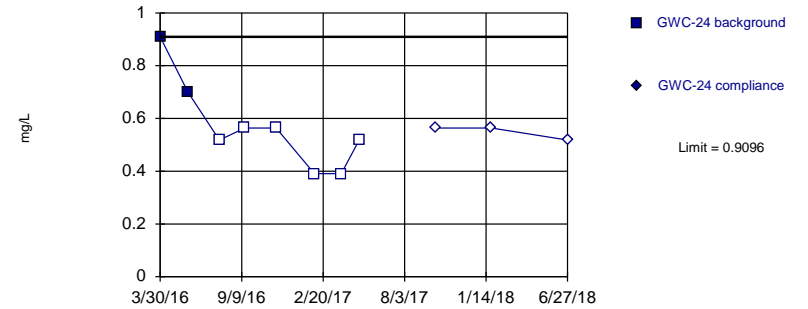


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

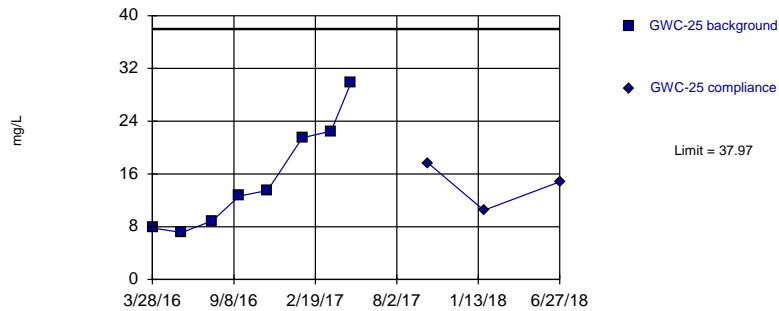


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

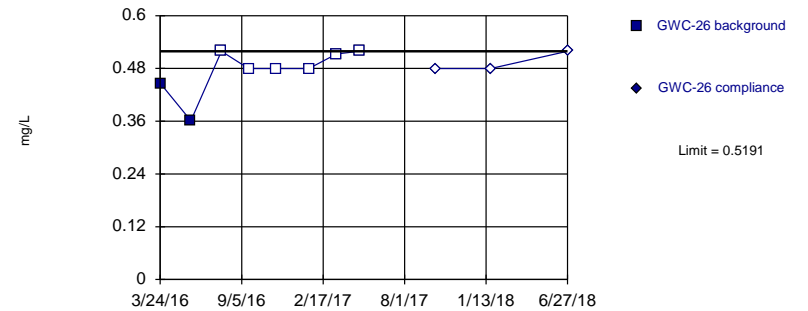


Background Data Summary: Mean=15.47, Std. Dev.=8.233, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.896, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

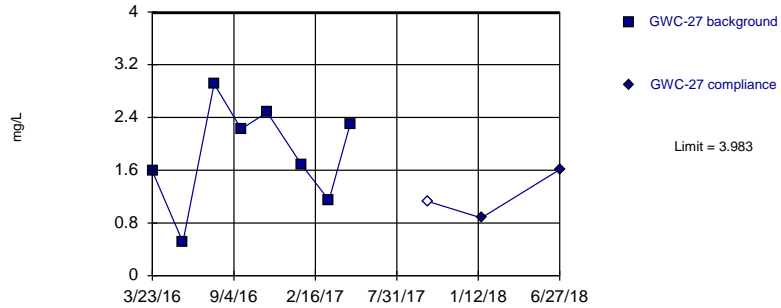


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

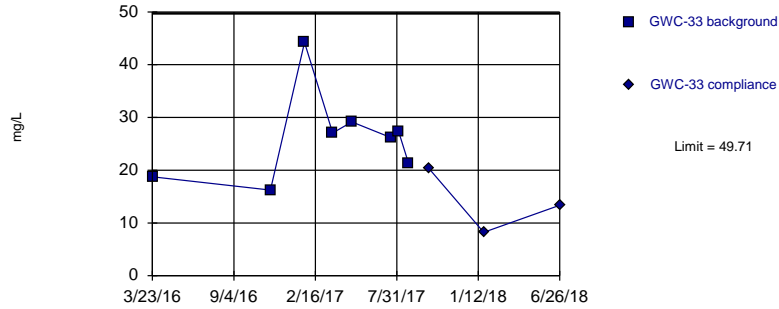
Within Limit

Sulfate  
Intrawell Parametric



Within Limit

Sulfate  
Intrawell Parametric

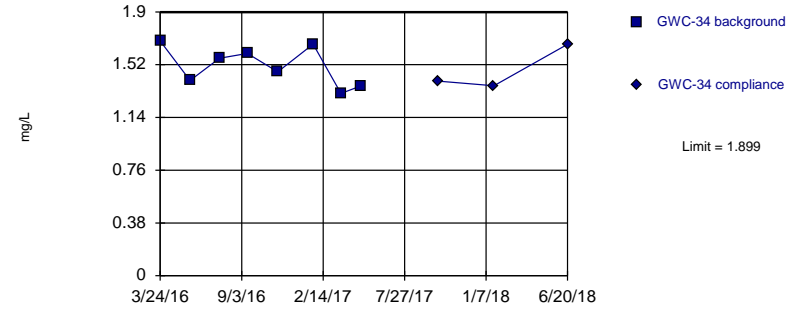


Background Data Summary: Mean=26.26, Std. Dev.=8.58, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8835, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

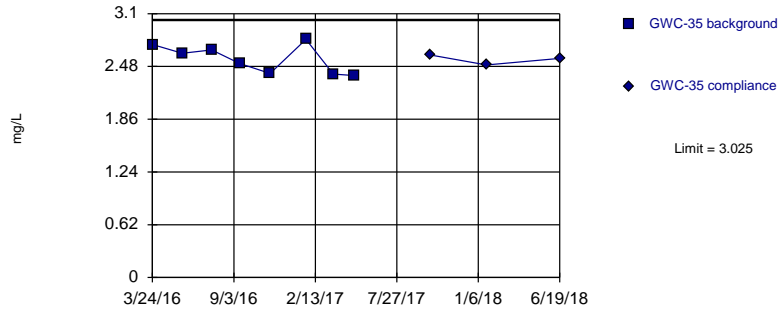


Background Data Summary: Mean=1.51, Std. Dev.=0.1421, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9369, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

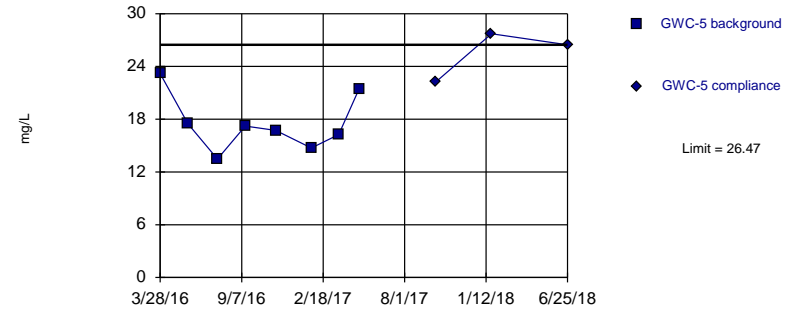


Background Data Summary: Mean=2.565, Std. Dev.=0.1684, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8946, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric



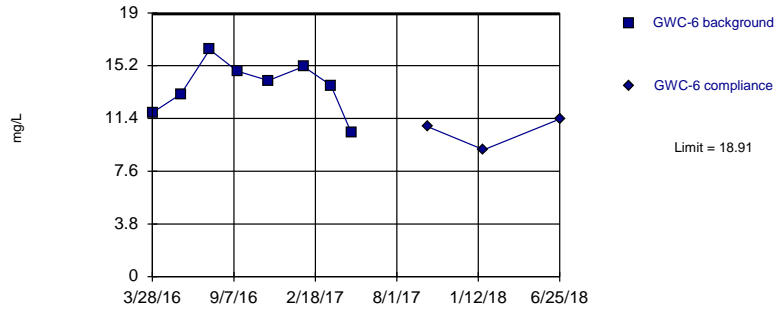
Background Data Summary: Mean=17.57, Std. Dev.=3.259, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9177, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Within Limit

Sulfate  
Intrawell Parametric

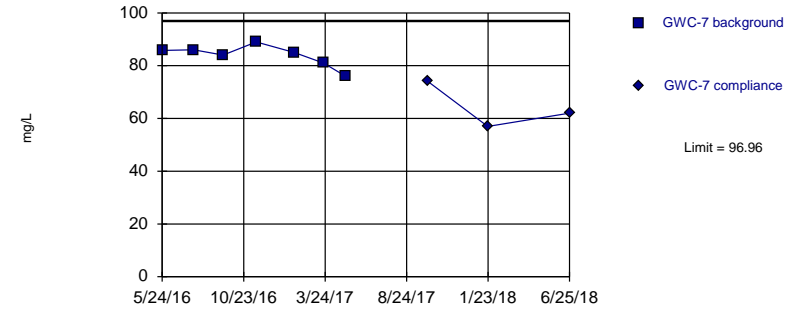


Background Data Summary: Mean=13.69, Std. Dev.=1.91, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9737, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

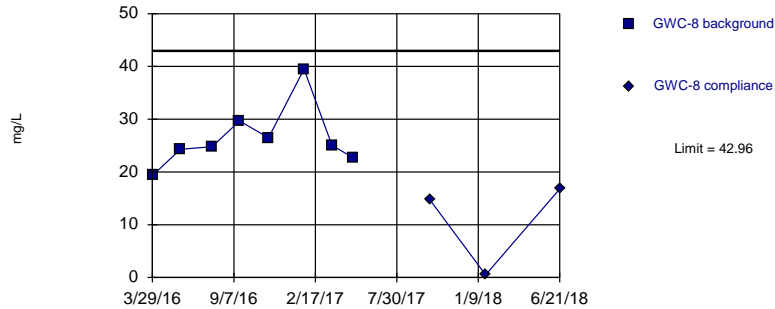


Background Data Summary: Mean=83.83, Std. Dev.=4.204, n=7. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.73. Kappa = 3.125 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

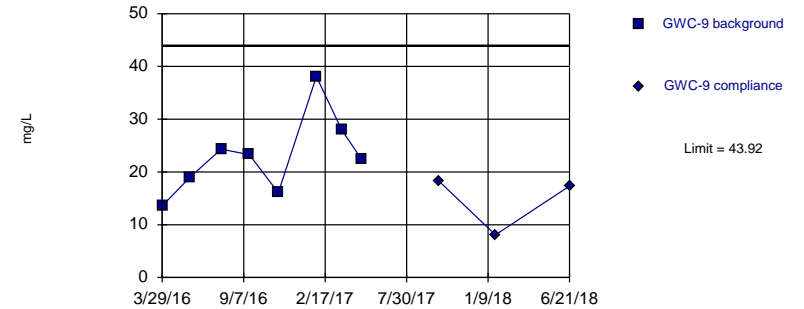


Background Data Summary: Mean=26.48, Std. Dev.=6.028, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

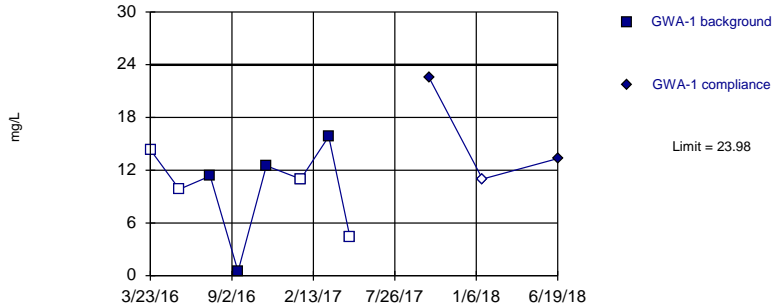


Background Data Summary: Mean=23.08, Std. Dev.=7.624, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9411, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

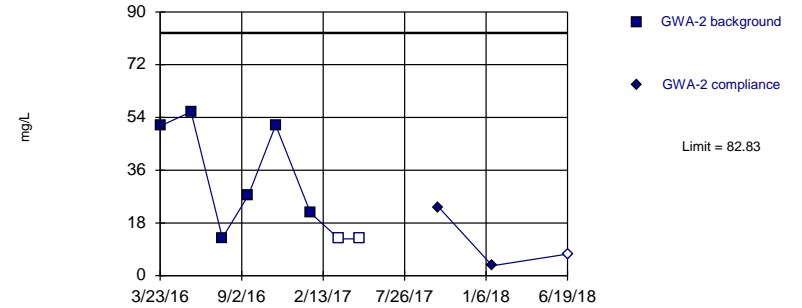


Background Data Summary: Mean=9.958, Std. Dev.=5.13, n=8, 50% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9072, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

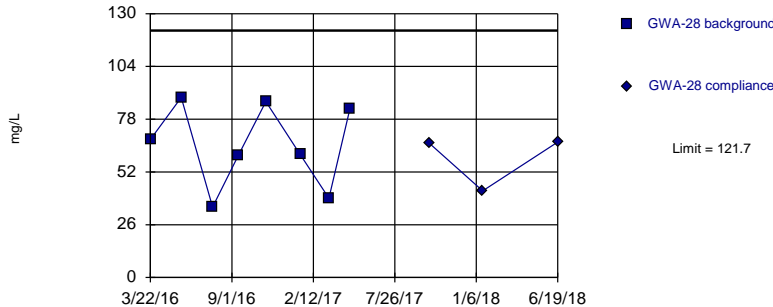


Background Data Summary: Mean=30.66, Std. Dev.=19.09, n=8, 25% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8119, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

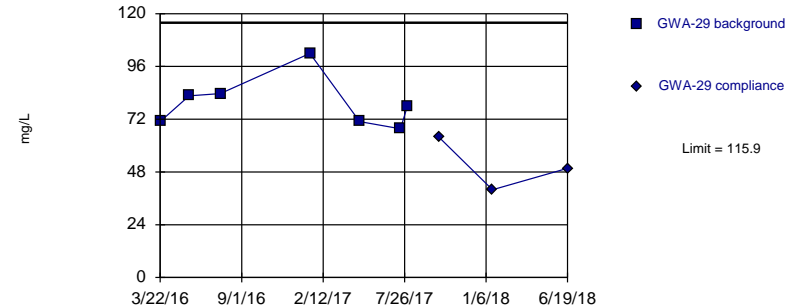


Background Data Summary: Mean=65.16, Std. Dev.=20.7, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

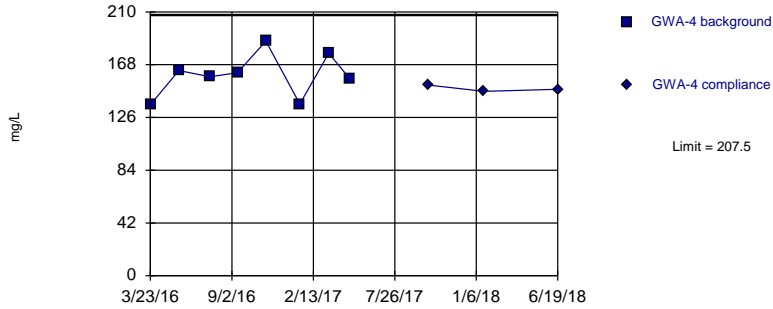


Background Data Summary: Mean=79.36, Std. Dev.=11.69, n=7. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8801, critical = 0.73. Kappa = 3.125 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:18 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

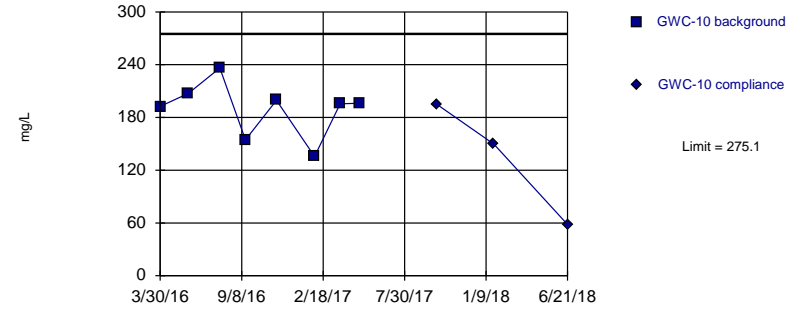


Background Data Summary: Mean=159.6, Std. Dev.=17.5, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

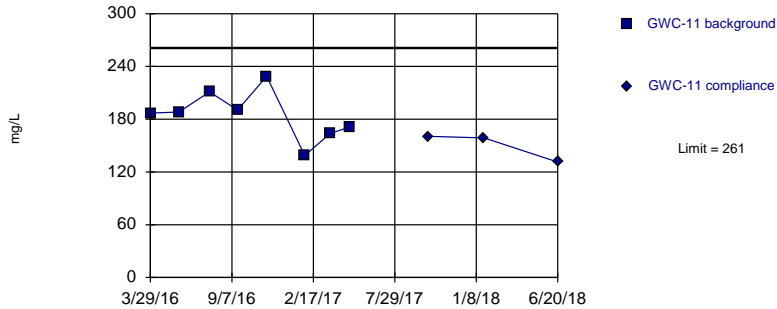


Background Data Summary: Mean=189.7, Std. Dev.=31.24, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9118, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

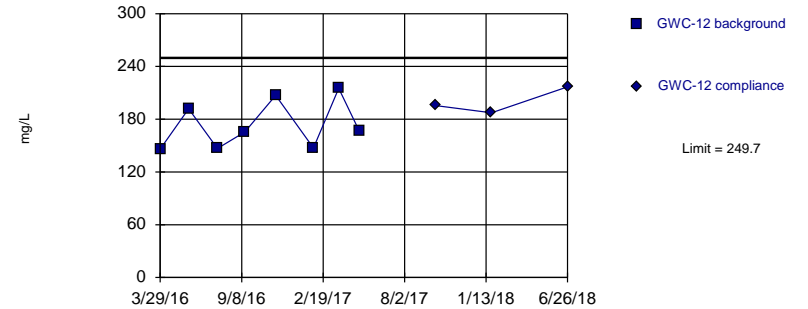


Background Data Summary: Mean=184.9, Std. Dev.=27.82, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9796, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

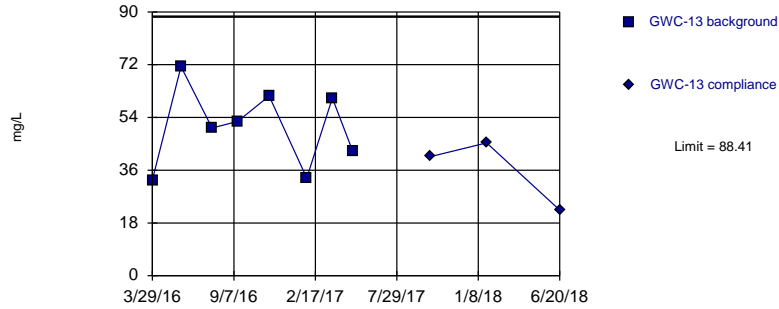


Background Data Summary: Mean=173.3, Std. Dev.=27.94, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8643, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

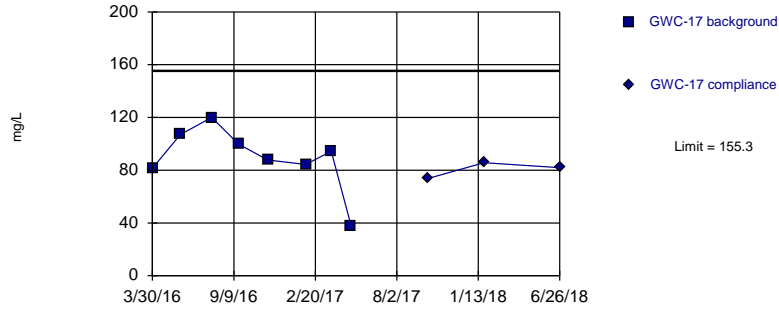
Within Limit

Total Dissolved Solids  
Intrawell Parametric



Within Limit

Total Dissolved Solids  
Intrawell Parametric

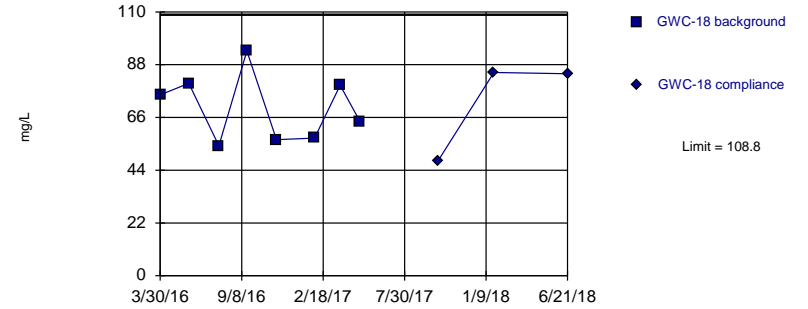


Background Data Summary: Mean=89.07, Std. Dev.=24.23, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8983, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

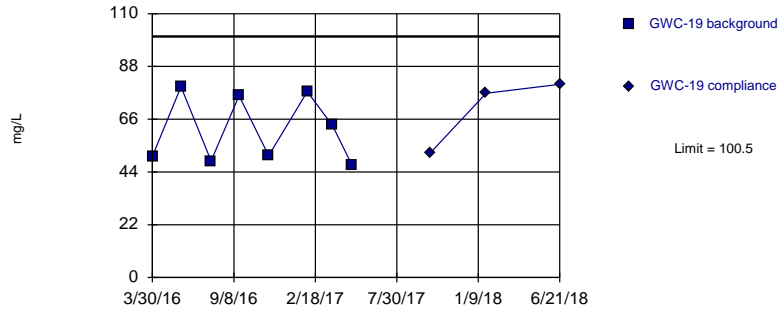


Background Data Summary: Mean=70.16, Std. Dev.=14.15, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9143, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

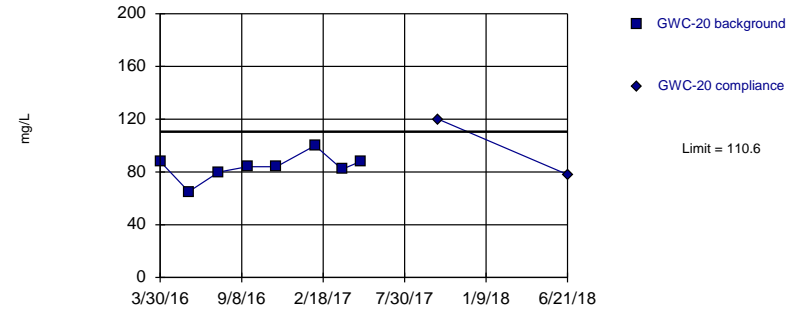


Background Data Summary: Mean=61.6, Std. Dev.=14.23, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.828, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

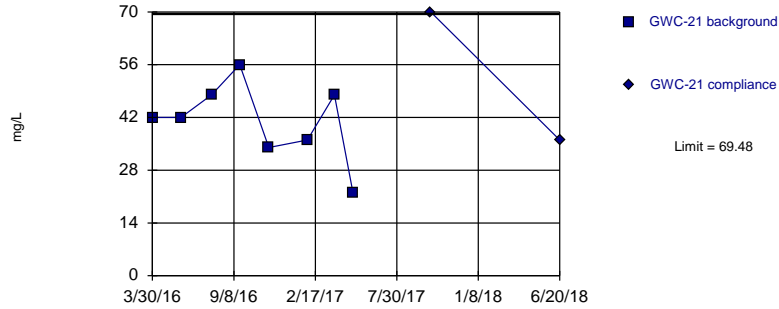


Background Data Summary: Mean=83.88, Std. Dev.=9.775, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9165, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

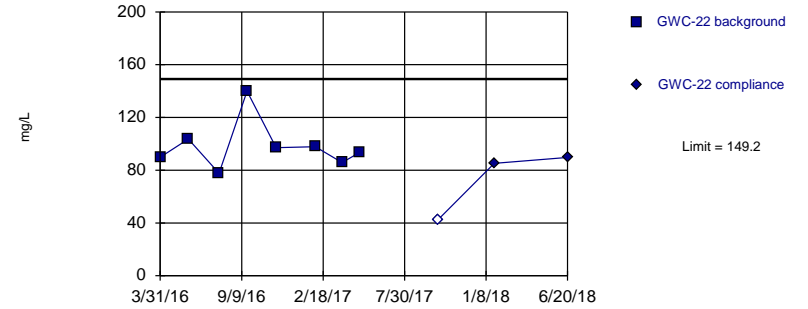


Background Data Summary: Mean=41, Std. Dev.=10.42, n=8. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9662, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

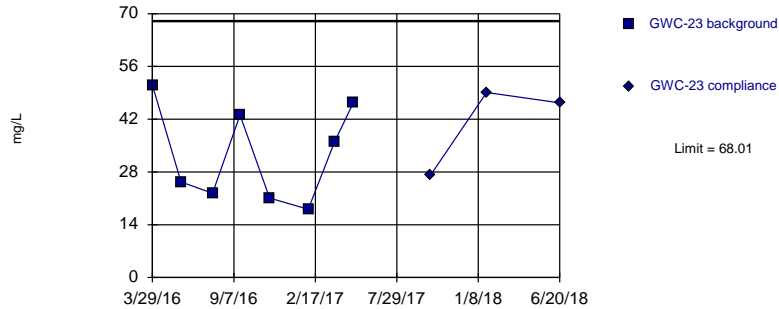


Background Data Summary: Mean=98.17, Std. Dev.=18.66, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8277, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

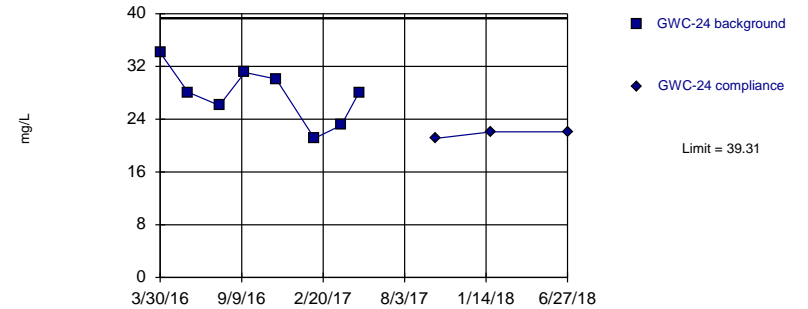


Background Data Summary: Mean=32.93, Std. Dev.=12.83, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8982, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

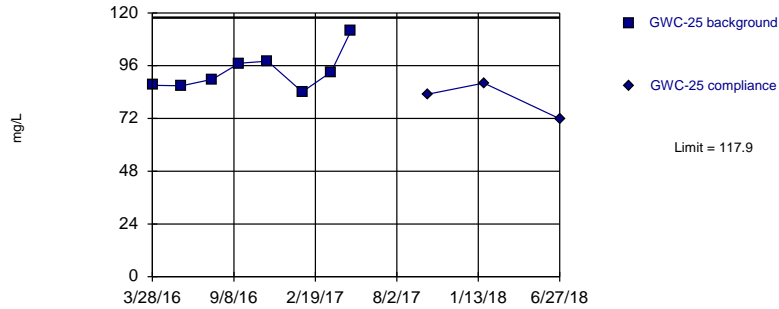


Background Data Summary: Mean=27.72, Std. Dev.=4.241, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9781, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

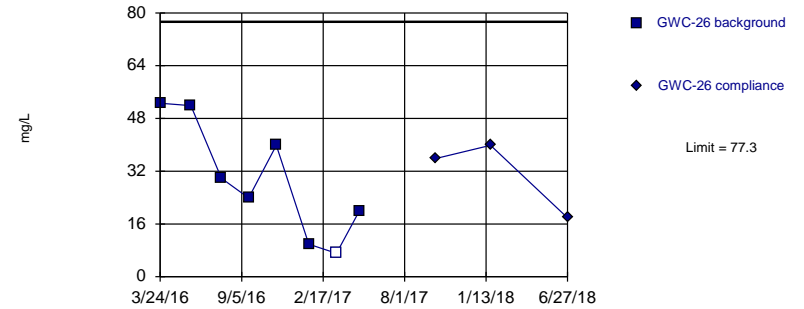


Background Data Summary: Mean=93.5, Std. Dev.=8.927, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8897, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

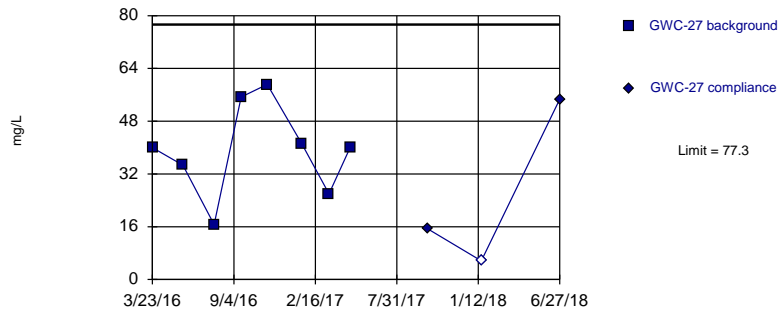


Background Data Summary: Mean=29.36, Std. Dev.=17.54, n=8, 12.5% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9258, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

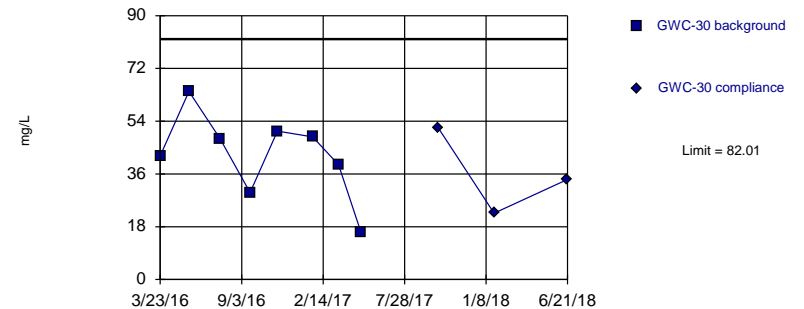


Background Data Summary: Mean=39.11, Std. Dev.=13.97, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9555, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

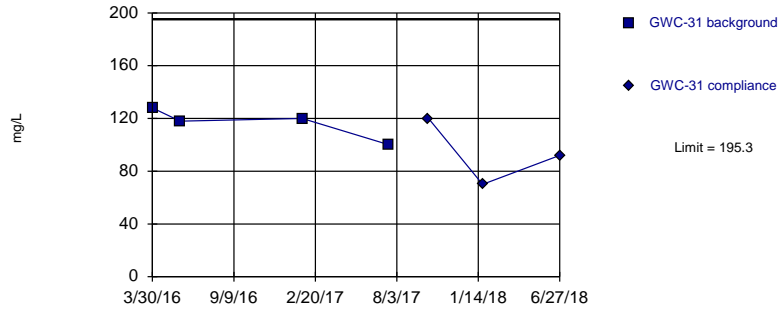


Background Data Summary: Mean=42.32, Std. Dev.=14.52, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9626, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

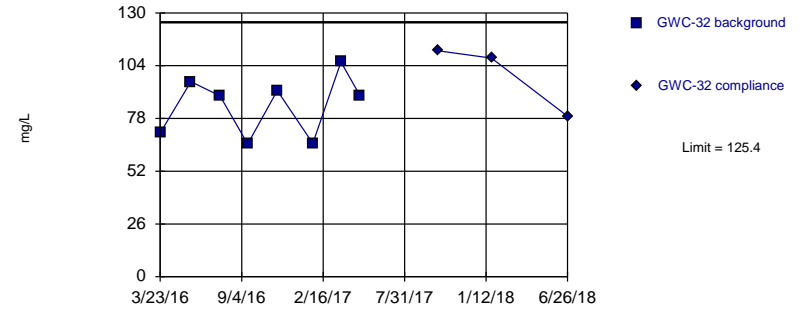


Background Data Summary: Mean=116.5, Std. Dev.=11.82, n=4. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9147, critical = 0.687. Kappa = 6.664 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

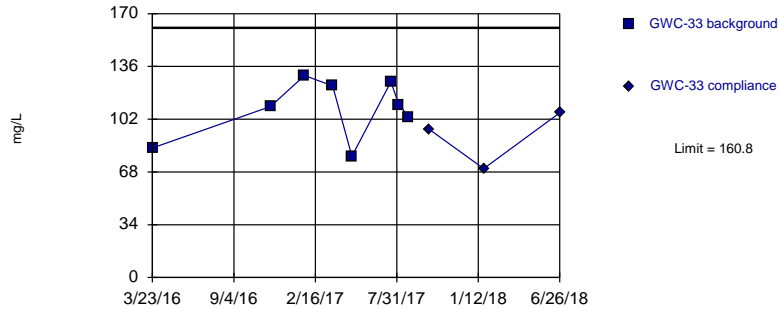


Background Data Summary: Mean=84.23, Std. Dev.=15.07, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8966, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

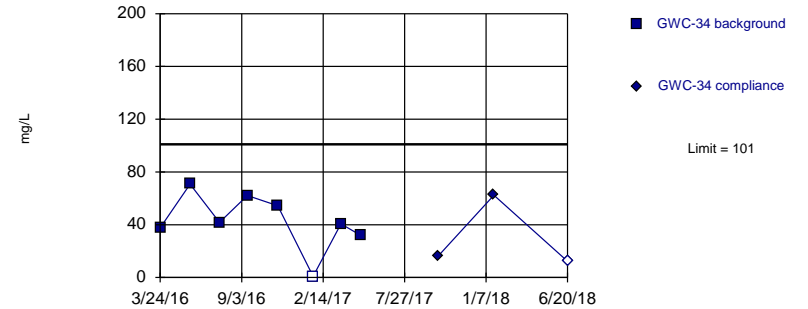


Background Data Summary: Mean=108.3, Std. Dev.=19.23, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.91, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric



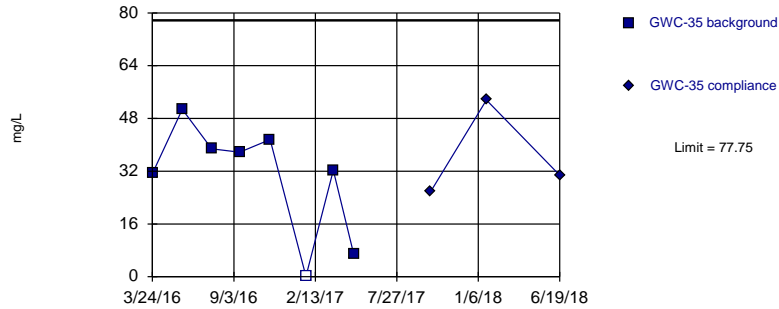
Background Data Summary: Mean=42.52, Std. Dev.=21.4, n=8, 12.5% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Within Limit

Total Dissolved Solids  
Intrawell Parametric

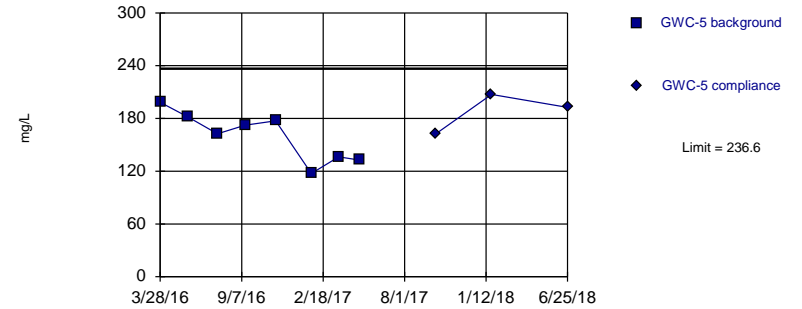


Background Data Summary: Mean=29.92, Std. Dev.=17.5, n=8, 12.5% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8747, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

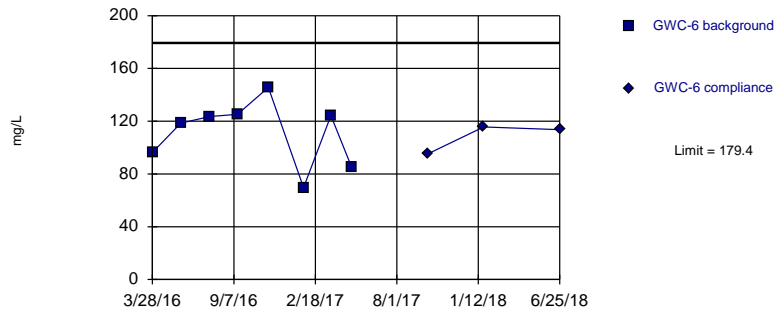


Background Data Summary: Mean=159.8, Std. Dev.=28.1, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

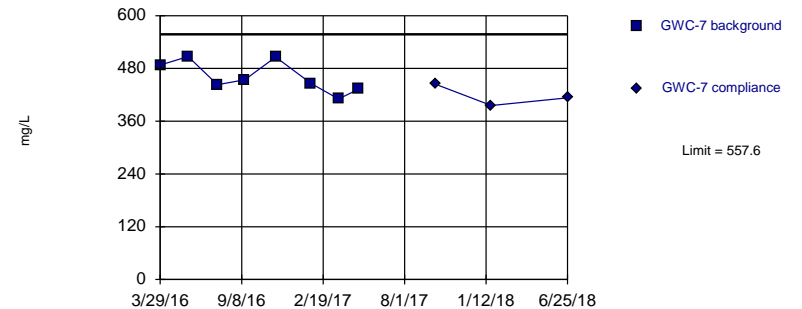


Background Data Summary: Mean=111.1, Std. Dev.=24.99, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9294, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

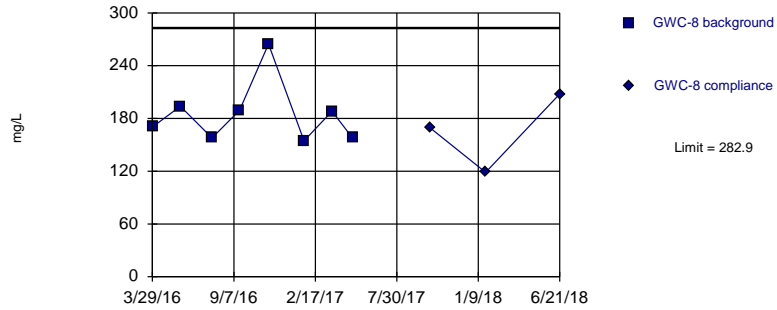


Background Data Summary: Mean=461, Std. Dev.=35.37, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9173, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

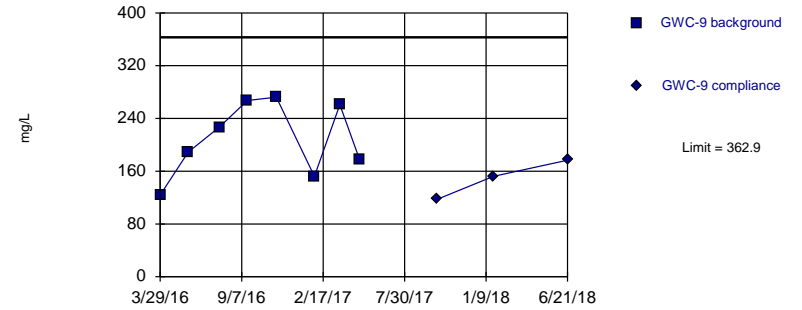


Background Data Summary: Mean=184.5, Std. Dev.=35.99, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.787, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric



Background Data Summary: Mean=208.6, Std. Dev.=56.47, n=8. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9164, critical = 0.749. Kappa = 2.733 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:19 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-1	GWA-1	GWA-2	GWA-2	GWA-28	GWA-28	GWA-29	GWA-29
1/19/2016							5.92	
1/20/2016			5.47					
1/21/2016	5.03							
1/22/2016					6.27			
3/22/2016					6.72		5.92	
3/23/2016	5.56		5.85					
5/19/2016							5.95	
5/20/2016	5.62							
5/23/2016					6.29			
5/24/2016			5.86					
7/21/2016	5.500376						6.049508	
7/25/2016					6.178217			
7/26/2016			5.808275					
9/15/2016	5.31						6.444541	
9/16/2016					6.545359			
11/9/2016					6			
11/10/2016			5.63					
11/11/2016	5.4							
1/17/2017					6.09			
1/19/2017	5.73		5.63					
3/15/2017							5.86	
3/16/2017	5.25				5.98			
3/17/2017			5.68					
4/27/2017					5.96		5.85	
4/28/2017	5.35		5.77					
8/1/2017					6.01 (D)		5.86 (D)	
8/2/2017			5.67 (D)					
8/3/2017	5.32 (D)							
1/19/2018		5.39 (D)		5.68 (D)		6.15 (D)		5.83 (D)
6/19/2018		5.27		5.84		5.96		5.77



# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-13	GWC-13	GWC-14	GWC-14	GWC-15	GWC-15	GWC-16	GWC-16
1/27/2016	6.52		5.88		6.67		6.03	
3/29/2016	7.49							
3/30/2016			6.01		6.7			
5/25/2016	6.76		5.52		6.52		6.22	
7/26/2016	6.859244		6.066915		6.719922			
7/27/2016							6.30178	
9/15/2016	7.565879		5.220961					
9/20/2016					6.519229			
11/17/2016	6.63		5.05		6.54		5.9	
2/1/2017			5.5		6.56		6.14	
3/23/2017	6.85		5.41					
3/24/2017							5.99	
5/3/2017	6.57		5.71		6.5		6.06	
8/4/2017	6.77 (D)				6.55 (D)			
8/7/2017			5.03 (D)				6.12 (D)	
1/25/2018		6.63 (D)		5.64 (D)		6.45 (D)		6.1 (D)
6/20/2018		6.66		5.05		7.24		6.08

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-17	GWC-17	GWC-18	GWC-18	GWC-19	GWC-19	GWC-20	GWC-20
1/27/2016	6.27				6.14		6.08	
3/30/2016	6.22		6.03		6.1		6.27	
5/25/2016	6.24							
5/26/2016			6.03		5.99		6.23	
7/25/2016			6.066342		6.063209		6.3145	
7/27/2016	6.321385							
9/19/2016			6.040669		6.276656			
9/20/2016							7.120962	
11/17/2016	6.11				5.97			
2/1/2017	6.18		5.98					
2/2/2017							6.17	
3/24/2017	6.34		5.85		5.82			
5/3/2017	6.09		5.92		5.89			
5/4/2017							6.38	
8/7/2017	6.16 (D)		5.98 (D)		5.93 (D)		6.19 (D)	
1/25/2018		6.2 (D)		6.03 (D)		5.89 (D)		
6/21/2018				5.87		5.78		6.65
6/26/2018		6.1						



# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-25	GWC-25	GWC-26	GWC-26	GWC-27	GWC-27	GWC-30	GWC-30
1/19/2016							5.9	
1/20/2016	5.98							
1/22/2016					5.35			
3/23/2016					5.57		6.78	
3/24/2016			5.64					
3/28/2016	5.1							
5/20/2016							6.05	
5/24/2016			5.78		5.58			
5/25/2016	5.7							
7/21/2016							6.188237	
7/26/2016			6.038068		5.614371			
7/27/2016	5.966094							
9/19/2016	6.070052				5.506855			
9/20/2016			5.701864				6.075727	
11/11/2016					5.88			
11/14/2016			5.64				5.93	
11/15/2016	6.35							
1/19/2017			5.7					
1/20/2017	6.54				5.71			
1/23/2017	6.59							
1/24/2017							6.03 (D)	
3/16/2017			5.58		5.37			
3/17/2017							5.94	
3/23/2017	7.25							
3/24/2017	6.56							
4/28/2017					5.89			
5/1/2017			5.78				6	
8/3/2017	6.33 (D)		5.61 (D)		5.65 (D)			
8/4/2017							6.01 (D)	
1/19/2018						5.53 (D)		
1/22/2018				6 (D)				
1/24/2018		6.12 (D)						6.29 (D)
6/21/2018								5.95
6/27/2018		6.28		5.59		5.58		



# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-31	GWC-31	GWC-32	GWC-32	GWC-33	GWC-33	GWC-34	GWC-34
1/21/2016							5.51	
1/25/2016	5.98		6.13		6.23			
3/23/2016			6.22		6.7			
3/24/2016							6.66	
5/23/2016			5.99				5.92	
5/24/2016					6.26			
5/25/2016	6.3							
7/21/2016							6.008569	
7/22/2016					6.956045			
7/27/2016	6.327805							
9/15/2016							5.982305	
9/16/2016			6.260319		6.411956			
11/15/2016			6.22				6.03	
11/16/2016					6.15			
1/24/2017	5.93							
1/25/2017			6.17		6.09		5.92	
2/6/2017	6.04							
3/22/2017					6.18		5.66	
3/28/2017	6.06							
5/1/2017	6.24		6.18		6.45		5.88	
8/3/2017	5.98 (D)		6.32 (D)		6.52 (D)		5.98 (D)	
1/22/2018		5.99 (D)		6.19 (D)		6.22 (D)		
1/23/2018								6.11 (D)
6/20/2018								5.97
6/26/2018				5.97		6.15		
6/27/2018		5.99						

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-35	GWC-5	GWC-5	GWC-6	GWC-6	GWC-7	GWC-7
1/20/2016			6.15		5.97		6.23	
1/21/2016	5.19							
3/24/2016	6.32							
3/28/2016			7.05		6.5			
3/29/2016							6.42	
5/23/2016			6.47					
5/24/2016					6		6.38	
5/25/2016	5.58							
7/21/2016	5.701591		6.424029		6.08222			
7/22/2016							6.438562	
9/15/2016	5.629095		7.042684		6.383623		6.347438	
11/15/2016	5.66		6.29					
11/16/2016					5.99		6.35	
1/26/2017	5.61		6.29		6.12		6.45	
3/22/2017	5.42							
5/2/2017	5.72		6.98		5.86		6.32	
8/3/2017	5.65 (D)		6.18 (D)		5.92 (D)			
8/4/2017							6.35 (D)	
1/23/2018		5.64 (D)		6.44 (D)		6.08 (D)		6.55 (D)
6/19/2018		5.59						
6/25/2018				6.42		5.86		6.26

# Prediction Limit

Constituent: pH, Sulfate Analysis Run 1/24/2019 8:20 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-8	GWC-8	GWC-9	GWC-9	GWA-1	GWA-1	GWA-2	GWA-2
1/26/2016	5.99							
3/23/2016					0.5		1.001	
3/29/2016	6.45		5.86					
5/20/2016					0.5			
5/24/2016	6.17		5.81				0.576 (J)	
7/21/2016					0.5			
7/25/2016			5.876175					
7/26/2016	6.291124						0.91 (J)	
9/15/2016					0.5			
9/16/2016							0.87 (J)	
9/19/2016	6.550086		6.323668					
11/10/2016							0.79 (J)	
11/11/2016					0.5			
11/16/2016	5.96							
1/19/2017					0.5		0.87 (J)	
1/26/2017	6.14							
1/31/2017			5.75					
3/16/2017					0.5			
3/17/2017							1.8	
3/23/2017	5.95		5.97					
4/28/2017					0.5		1.7	
5/2/2017	6.11		6.11					
8/7/2017	6.02 (D)		5.78 (D)					
10/3/2017								1.9
10/4/2017						0.5		
1/19/2018						0.5		1.8
1/24/2018		5.91 (D)		5.98 (D)				
6/19/2018						0.5		1
6/21/2018		5.9		5.68				



# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-11	GWC-11	GWC-12	GWC-12	GWC-13	GWC-13	GWC-14	GWC-14
3/29/2016	0.576666666..		19.1889		2.8316			
3/30/2016							7.2023	
5/25/2016	1.076666666..		19.8		2.62		10.5	
7/22/2016			20					
7/25/2016	1.076666666..							
7/26/2016					2.7		38	
9/15/2016			20		2.6		13	
9/19/2016	1.076666666..							
11/16/2016	0.01		19					
11/17/2016					2.2		18	
1/31/2017	3.21		23		2.6			
2/1/2017							8.2	
3/23/2017	1.577		23		2.6		10	
5/2/2017	1.076666666..							
5/3/2017			22		2.6		10	
10/4/2017		1.076666666..		22				22
10/5/2017						2.5		
1/24/2018		0.01		22				
1/25/2018						2.5		9.9
6/20/2018		1.076666666..				2.5		18
6/26/2018				23				

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-15	GWC-15	GWC-16	GWC-16	GWC-17	GWC-17	GWC-18	GWC-18
3/30/2016	1.7296		0.5273 (J)		0.8313 (J)		0.6028 (J)	
5/25/2016	1.52		0.4529 (J)		0.195 (J)			
5/26/2016							0.5937 (J)	
7/25/2016							0.495672727..	
7/26/2016	1.2							
7/27/2016			0.513593181..		0.7 (J)			
9/16/2016			0.498418181..					
9/19/2016					<1		0.520172727..	
9/20/2016	0.85 (J)							
11/17/2016	0.83 (J)		0.498418181..		0.75 (J)		0.520172727..	
2/1/2017	1.9		0.483984848..		<1		0.478872727..	
3/23/2017	1.6							
3/24/2017			0.483984848..		<1		0.478872727..	
5/3/2017	1.3		0.513593181..		<1		0.495672727..	
10/4/2017		1.4				<1		
10/5/2017				0.498418181..				0.520172727..
1/25/2018		1.4		0.498418181..		<1		0.520172727..
6/20/2018		2.1		0.513593181..				
6/21/2018								0.495672727..
6/26/2018						<1		

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-19	GWC-19	GWC-20	GWC-20	GWC-21	GWC-21	GWC-22	GWC-22
3/30/2016	2.3237		1.0356		0.3269 (J)			
3/31/2016							0.4032 (J)	
5/26/2016	0.574 (J)		0.979 (J)		<1		0.5398 (J)	
7/25/2016	<1		0.94 (J)					
7/26/2016					<1		0.477845454..	
9/19/2016	<1							
9/20/2016			0.83 (J)		<1		0.493345454..	
11/17/2016	<1		0.71 (J)		<1		0.493345454..	
2/2/2017	8.6		0.82 (J)		<1			
2/3/2017							0.538412121..	
3/24/2017	2.5							
3/28/2017			0.75 (J)		<1		0.538412121..	
5/3/2017	0.88 (J)						0.477845454..	
5/4/2017			1.1		<1			
10/5/2017		0.81 (J)						0.493345454..
10/6/2017				0.79 (J)		<1		
1/25/2018		0.77 (J)						0.493345454..
6/20/2018						<1		0.477845454..
6/21/2018		<1		1.3				

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-23	GWC-23	GWC-24	GWC-24	GWC-25	GWC-25	GWC-26	GWC-26
3/24/2016							0.4465 (J)	
3/28/2016					8.3151			
3/29/2016	0.5107 (J)							
3/30/2016			0.9096					
5/25/2016	0.39 (J)		0.6995 (J)				0.3612 (J)	
5/26/2016					4.31			
7/26/2016							0.519093181..	
7/27/2016	0.524079545..		0.518361363..		6.1			
9/16/2016			0.563636363..					
9/19/2016					11		0.479618181..	
9/20/2016	0.490554545..							
11/14/2016							0.479618181..	
11/15/2016					18			
11/18/2016	0.490554545..		0.563636363..					
1/19/2017							0.479618181..	
1/24/2017					26			
2/3/2017	0.480487878..		0.390669696..					
3/16/2017							0.512768181..	
3/23/2017					23			
3/28/2017	0.480487878..							
3/29/2017			0.390669696..					
5/1/2017							0.519093181..	
5/2/2017					27			
5/4/2017	0.524079545..		0.518361363..					
10/4/2017								0.479618181..
10/5/2017		0.490554545..		0.563636363..		16		
1/22/2018								0.479618181..
1/25/2018		0.490554545..		0.563636363..		15		
6/20/2018		0.524079545..						
6/27/2018				0.518361363..		12		0.519093181..



# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-27	GWC-27	GWC-30	GWC-30	GWC-31	GWC-31	GWC-32	GWC-32
3/23/2016	1.3897		1.3729				12.8473	
3/30/2016					15.0114			
5/20/2016			1.31					
5/24/2016	0.598 (J)						13.5	
5/25/2016					19.1			
7/21/2016			1.3					
7/22/2016							12	
7/26/2016	3							
9/16/2016							12	
9/19/2016	1.6							
9/20/2016			1.3					
11/11/2016	3							
11/14/2016			1.1					
11/15/2016							13	
1/20/2017	2.2							
1/24/2017			1.3					
1/25/2017					13			
1/26/2017							9.2	
3/16/2017	0.95 (J)							
3/17/2017			1.3					
3/24/2017							9.2	
4/28/2017	2.1							
5/1/2017			1.2					
5/2/2017							9	
7/19/2017					15			
10/3/2017		<1						
10/4/2017				1.2				
10/6/2017						19		8.8
1/19/2018		1.4						
1/23/2018						15		9.4
1/24/2018				1				
6/21/2018				1				
6/26/2018								12
6/27/2018		1.7				14		

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-33	GWC-33	GWC-34	GWC-34	GWC-35	GWC-35	GWC-5	GWC-5
3/23/2016	19.6956							
3/24/2016			1.8782		2.7482			
3/28/2016							19.9405	
5/23/2016			1.44		2.76		21	
7/21/2016			1.6		2.8		17	
9/15/2016			1.6		2.4		16	
11/15/2016			1.3		2.3		15	
11/17/2016	22							
1/25/2017	50		1.5					
1/26/2017					2.7		13	
3/22/2017			1.5		2.4		13	
3/23/2017	28							
5/1/2017	25		1.4					
5/2/2017					2.5		25	
7/19/2017	22							
8/4/2017	25							
8/24/2017	19							
10/3/2017				1.4		2.5		21
10/5/2017		18						
1/23/2018		14		1.2		2.4		26
6/19/2018						2.7		
6/20/2018				1.7				
6/25/2018								30
6/26/2018		9.2						

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-6	GWC-6	GWC-7	GWC-7	GWC-8	GWC-8	GWC-9	GWC-9
3/28/2016	11.0351							
3/29/2016					15.2958		14.6203	
5/24/2016	12.8		85.8		18.5		14.7	
7/21/2016	16							
7/22/2016			86					
7/25/2016							20	
7/26/2016					19			
9/15/2016	15		84					
9/19/2016					31		22	
11/16/2016	15		89		36		22	
1/26/2017	16		85		49			
1/31/2017							44	
3/22/2017	13		81					
3/23/2017					21		29	
5/2/2017	10		76				18	
5/3/2017					17			
10/3/2017		11		74				17
10/5/2017						16		
1/23/2018		10		57				
1/24/2018						10		14
6/21/2018						11		13
6/25/2018		11		62				

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-1	GWA-1	GWA-2	GWA-2	GWA-28	GWA-28	GWA-29	GWA-29
3/22/2016					69		92	
3/23/2016	<25		41					
5/19/2016							99	
5/20/2016	<25							
5/23/2016					92			
5/24/2016			51					
7/21/2016	14						100	
7/25/2016					38			
7/26/2016			8					
9/15/2016	12				64			
9/16/2016			40					
11/9/2016					80			
11/10/2016			58					
11/11/2016	4 (J)							
1/17/2017					54		66	
1/19/2017	<5		28					
3/16/2017	14				40			
3/17/2017			<5					
4/27/2017					84		92	
4/28/2017	<5		<5					
7/18/2017							84 (J)	
8/1/2017							60 (J)	
10/3/2017				36		70		46
10/4/2017		34						
1/19/2018		<5		10		36		4 (J)
6/19/2018		16		<5		70		66



# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-13	GWC-13	GWC-14	GWC-14	GWC-15	GWC-15	GWC-16	GWC-16
3/29/2016	48							
3/30/2016			165		94		75	
5/25/2016	61		233		90		91	
7/26/2016	40		330		64			
7/27/2016							76	
9/15/2016	54		350					
9/16/2016							78	
9/20/2016					72			
11/17/2016	64		440		46		110	
1/31/2017	36							
2/1/2017			150		70		70	
3/23/2017	76		250		100			
3/24/2017							100	
5/3/2017	32		190		84		18	
10/4/2017				520		60		
10/5/2017		42						10
1/25/2018		48		160		86		56
6/20/2018		12		310		64		84

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-17	GWC-17	GWC-18	GWC-18	GWC-19	GWC-19	GWC-20	GWC-20
3/30/2016	97		84		69		88	
5/25/2016	97							
5/26/2016			80		75		65	
7/25/2016			54		44		80	
7/27/2016	110							
9/19/2016	110		96		74			
9/20/2016							84	
11/17/2016	74		42		34		84	
2/1/2017	100		66					
2/2/2017					96		100	
3/24/2017	110		88		82			
3/28/2017							82	
5/3/2017	28		64		42			
5/4/2017							88	
10/4/2017		84						
10/5/2017				50		50		
10/6/2017								120
1/25/2018		72		70		60		
6/21/2018				84		76		78
6/26/2018		72						





# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-25	GWC-25	GWC-26	GWC-26	GWC-27	GWC-27	GWC-30	GWC-30
3/23/2016					46		51	
3/24/2016			48					
3/28/2016	90							
5/20/2016							58	
5/24/2016					34			
5/25/2016			42					
5/26/2016	75							
7/21/2016							42	
7/26/2016			20		16			
7/27/2016	78							
9/19/2016	100		48		52			
9/20/2016							52	
11/11/2016					56			
11/14/2016			40				38	
11/15/2016	110							
1/19/2017			10					
1/20/2017					38			
1/24/2017	96						36	
3/16/2017			<5		32			
3/17/2017							48	
3/23/2017	96							
4/28/2017					46			
5/1/2017			10				10	
5/2/2017	100							
10/3/2017						12		
10/4/2017				60				74
10/5/2017		86						
1/19/2018						<5		
1/22/2018				40				
1/24/2018								10
1/25/2018		100						
6/21/2018								28
6/27/2018		60		8		54		

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-31	GWC-31	GWC-32	GWC-32	GWC-33	GWC-33	GWC-34	GWC-34
3/23/2016			75		80			
3/24/2016							55	
3/30/2016	128							
5/23/2016							61	
5/24/2016			83					
5/25/2016	118							
7/21/2016							32	
7/22/2016			76					
9/15/2016							62	
9/16/2016			84					
11/15/2016			94				56	
11/17/2016					140			
1/25/2017	120				160		<5	
1/26/2017			68					
3/22/2017							58	
3/23/2017					120			
3/24/2017			110					
5/1/2017					72		22	
5/2/2017			76					
7/19/2017	100				120			
8/4/2017					90			
8/24/2017					82			
10/3/2017								16
10/5/2017						74		
10/6/2017		120		130				
1/23/2018		70		110		100		64
6/20/2018								<5
6/26/2018				66		100		
6/27/2018		92						

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-35	GWC-5	GWC-5	GWC-6	GWC-6	GWC-7	GWC-7
3/24/2016	33							
3/28/2016			172		92			
3/29/2016							517	
5/23/2016	48		189					
5/24/2016					115		494	
7/21/2016	36		170		120			
7/22/2016							430	
9/15/2016	38		180		130		460	
11/15/2016	44		180					
11/16/2016					150		500	
1/26/2017	<5		120		74		440	
3/22/2017	34		110		120		440	
5/2/2017	4 (J)		140		82		420	
10/3/2017		26		170		100		450
1/23/2018		56		210		120		390
6/19/2018		28						
6/25/2018				200		110		400

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:20 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-8	GWC-8	GWC-9	GWC-9
3/29/2016	172		93	
5/24/2016	196		162	
7/25/2016			200	
7/26/2016	160			
9/19/2016	220		340	
11/16/2016	240		280	
1/26/2017	130			
1/31/2017			160	
3/23/2017	190		230	
5/2/2017			150	
5/3/2017	160			
10/3/2017				190
10/5/2017		200		
1/24/2018		94		160
6/21/2018		210		150

# Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 9:08 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-10	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-11	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-12	0.05405	n/a	9/28/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-13	0.05405	n/a	10/2/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
<b>Boron (mg/L)</b>	<b>GWC-14</b>	<b>0.05405</b>	<b>n/a</b>	<b>10/1/2018</b>	<b>0.571</b>	<b>Yes</b>	<b>65</b>	<b>98.46</b>	<b>n/a</b>	<b>0.000434</b>	<b>NP Inter (NDs) 1 of ...</b>
Boron (mg/L)	GWC-15	0.05405	n/a	10/1/2018	0.03103	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-16	0.05405	n/a	10/1/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-17	0.05405	n/a	10/2/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-18	0.05405	n/a	9/28/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-19	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-20	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-21	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-22	0.05405	n/a	10/1/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-23	0.05405	n/a	10/1/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-24	0.05405	n/a	9/28/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-25	0.05405	n/a	9/26/2018	0.02403	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-26	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-27	0.05405	n/a	9/27/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-30	0.05405	n/a	10/3/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-31	0.05405	n/a	10/3/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-32	0.05405	n/a	10/2/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-33	0.05405	n/a	10/2/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-34	0.05405	n/a	10/2/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-35	0.05405	n/a	10/1/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-5	0.05405	n/a	10/3/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-6	0.05405	n/a	9/25/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-7	0.05405	n/a	10/2/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
Boron (mg/L)	GWC-8	0.05405	n/a	9/26/2018	0.02603...	No	65	98.46	n/a	0.000434	NP Inter (NDs) 1 of ...
<b>Boron (mg/L)</b>	<b>GWC-9</b>	<b>0.05405</b>	<b>n/a</b>	<b>9/26/2018</b>	<b>0.141</b>	<b>Yes</b>	<b>65</b>	<b>98.46</b>	<b>n/a</b>	<b>0.000434</b>	<b>NP Inter (NDs) 1 of ...</b>
Calcium (mg/L)	GWC-10	90.31	n/a	9/27/2018	12.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-11	90.31	n/a	9/27/2018	8.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-12	90.31	n/a	9/28/2018	45.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-13	90.31	n/a	10/2/2018	3.51	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-14	90.31	n/a	10/1/2018	21.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-15	90.31	n/a	10/1/2018	7.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-16	90.31	n/a	10/1/2018	6.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-17	90.31	n/a	10/2/2018	7.51	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-18	90.31	n/a	9/28/2018	6.21	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-19	90.31	n/a	9/27/2018	5.21	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-20	90.31	n/a	9/27/2018	9.11	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-21	90.31	n/a	9/27/2018	3.91	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-22	90.31	n/a	10/1/2018	9.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-23	90.31	n/a	10/1/2018	2.91	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-24	90.31	n/a	9/28/2018	0.12	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-25	90.31	n/a	9/26/2018	8.51	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-26	90.31	n/a	9/27/2018	1.41	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-27	90.31	n/a	9/27/2018	2.71	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-30	90.31	n/a	10/3/2018	2.61	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-31	90.31	n/a	10/3/2018	10.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-32	90.31	n/a	10/2/2018	7.01	No	65	1.538	n/a	0.000434	NP Inter (normality) ...

## Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 9:08 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	GWC-33	90.31	n/a	10/2/2018	14.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-34	90.31	n/a	10/2/2018	2.41	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-35	90.31	n/a	10/1/2018	1.41	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-5	90.31	n/a	10/3/2018	31.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-6	90.31	n/a	9/25/2018	14.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-7	90.31	n/a	10/2/2018	51.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-8	90.31	n/a	9/26/2018	33.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Calcium (mg/L)	GWC-9	90.31	n/a	9/26/2018	17.31	No	65	1.538	n/a	0.000434	NP Inter (normality) ...
Chloride (mg/L)	GWC-10	29.31	n/a	9/27/2018	4.771	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-11	29.31	n/a	9/27/2018	2.671	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-12	29.31	n/a	9/28/2018	20.37	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-13	29.31	n/a	10/2/2018	0.6712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
<b>Chloride (mg/L)</b>	<b>GWC-14</b>	<b>29.31</b>	<b>n/a</b>	<b>10/1/2018</b>	<b>73.37</b>	<b>Yes</b>	<b>64</b>	<b>0</b>	<b>ln(x)</b>	<b>0.0002595</b>	<b>Param Inter 1 of 2 De...</b>
Chloride (mg/L)	GWC-15	29.31	n/a	10/1/2018	3.671	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-16	29.31	n/a	10/1/2018	0.7712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-17	29.31	n/a	10/2/2018	0.5712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-18	29.31	n/a	9/28/2018	0.9712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-19	29.31	n/a	9/27/2018	0.6712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-20	29.31	n/a	9/27/2018	1.171	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-21	29.31	n/a	9/27/2018	2.471	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-22	29.31	n/a	10/1/2018	0.9712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-23	29.31	n/a	10/1/2018	1.271	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-24	29.31	n/a	9/28/2018	3.171	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-25	29.31	n/a	9/26/2018	4.971	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-26	29.31	n/a	9/27/2018	2.371	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-27	29.31	n/a	9/27/2018	0.3712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-30	29.31	n/a	10/3/2018	0.7712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-31	29.31	n/a	10/3/2018	1.071	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-32	29.31	n/a	10/2/2018	0.3712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-33	29.31	n/a	10/2/2018	1.571	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-34	29.31	n/a	10/2/2018	0.4712	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-35	29.31	n/a	10/1/2018	2.971	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-5	29.31	n/a	10/3/2018	16.37	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-6	29.31	n/a	9/25/2018	5.671	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-7	29.31	n/a	10/2/2018	18.37	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-8	29.31	n/a	9/26/2018	4.771	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Chloride (mg/L)	GWC-9	29.31	n/a	9/26/2018	18.37	No	64	0	ln(x)	0.0002595	Param Inter 1 of 2 De...
Fluoride (mg/L)	GWC-10	3.225	n/a	9/27/2018	0.552	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-11	3.225	n/a	9/27/2018	0.08197	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-12	3.225	n/a	9/28/2018	0.162	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-13	3.225	n/a	10/2/2018	0.09197	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-14	3.225	n/a	10/1/2018	0.04497	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-15	3.225	n/a	10/1/2018	0.06197	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-16	3.225	n/a	10/1/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-17	3.225	n/a	10/2/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-18	3.225	n/a	9/28/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-19	3.225	n/a	9/27/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-20	3.225	n/a	9/27/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-21	3.225	n/a	9/27/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-22	3.225	n/a	10/1/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...

# Prediction Limit

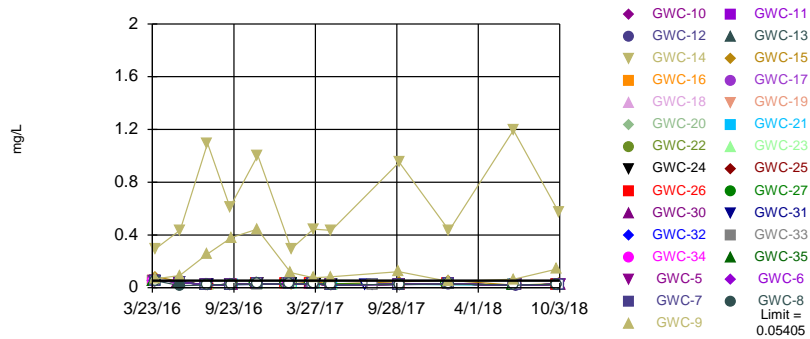
Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 9:08 AM

<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>
Fluoride (mg/L)	GWC-23	3.225	n/a	10/1/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-24	3.225	n/a	9/28/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-25	3.225	n/a	9/26/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-26	3.225	n/a	9/27/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-27	3.225	n/a	9/27/2018	0.872	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-30	3.225	n/a	10/3/2018	0.09197	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-31	3.225	n/a	10/3/2018	1.662	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-32	3.225	n/a	10/2/2018	2.362	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-33	3.225	n/a	10/2/2018	2.062	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-34	3.225	n/a	10/2/2018	0.142	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-35	3.225	n/a	10/1/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-5	3.225	n/a	10/3/2018	0.09197	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-6	3.225	n/a	9/25/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-7	3.225	n/a	10/2/2018	0.212	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-8	3.225	n/a	9/26/2018	0.06196...	No	64	50	n/a	0.0004464	NP Inter (normality) ...
Fluoride (mg/L)	GWC-9	3.225	n/a	9/26/2018	0.04397	No	64	50	n/a	0.0004464	NP Inter (normality) ...

Exceeds Limit: GWC-14, GWC-9

### Boron

Interwell Non-parametric



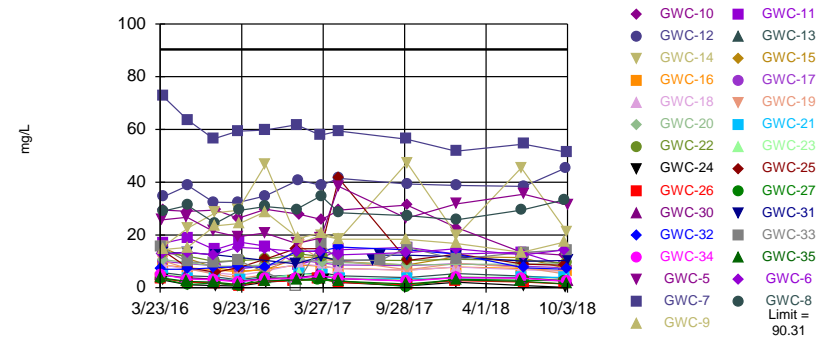
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 65 background values. 98.46% NDs. Annual per-constituent alpha = 0.02486. Individual comparison alpha = 0.000434 (1 of 2). Comparing 29 points to limit. Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 9:07 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

### Calcium

Interwell Non-parametric



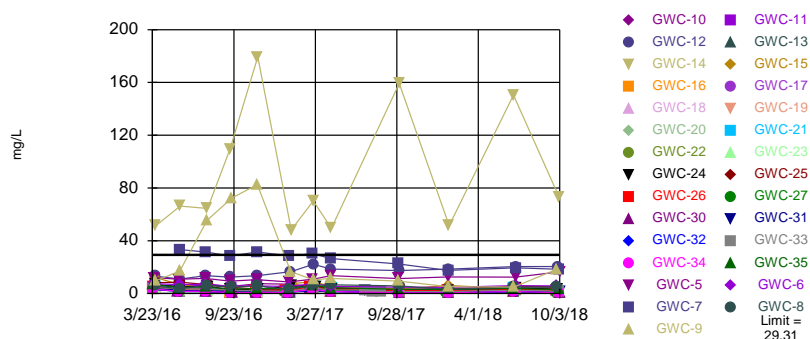
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. 1.538% NDs. Annual per-constituent alpha = 0.02486. Individual comparison alpha = 0.000434 (1 of 2). Comparing 29 points to limit. Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 9:07 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limit: GWC-14

### Chloride

Interwell Parametric



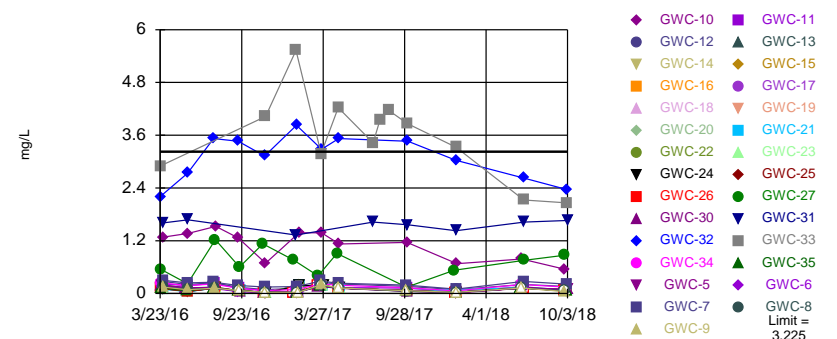
Background Data Summary (based on natural log transformation): Mean=1.153, Std. Dev.=0.9856, n=64. Data were deseasonalized. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9653, critical = 0.947. Kappa = 2.257 (c=7, w=29, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0002595. Comparing 29 points to limit.

Prediction Limit Analysis Run 1/24/2019 9:07 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

### Fluoride

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 64 background values. 50% NDs. Annual per-constituent alpha = 0.02556. Individual comparison alpha = 0.0004464 (1 of 2). Comparing 29 points to limit. Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 9:07 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWA-28 (bg)	GWA-29 (bg)	GWC-32	GWA-4 (bg)	GWC-33	GWA-2 (bg)	GWC-30	GWC-27	GWA-1 (bg)
3/22/2016	0.054051959..	0.054051959..							
3/23/2016			0.054051959..	0.054051959..	0.054051959..	0.054051959..	0.054051959..	0.054051959..	0.054051959..
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016		0.044204569..		0.044204569..					
5/20/2016							0.044204569..		0.044204569..
5/23/2016	0.044204569..								
5/24/2016			0.044204569..		0.044204569..	0.044204569..		0.044204569..	
5/25/2016									
5/26/2016									
7/21/2016		0.019204568..		0.019204568..			0.019204568..		0.019204568..
7/22/2016			0.019204568..		0.019204568..				
7/25/2016	0.019204568..								
7/26/2016						0.019204568..		0.019204568..	
7/27/2016									
9/14/2016				0.026030918..					
9/15/2016	0.026030918..								0.026030918..
9/16/2016			0.026030918..		0.026030918..	0.026030918..			
9/19/2016								0.026030918..	
9/20/2016							0.026030918..		
11/9/2016	0.028786842..								
11/10/2016				0.028786842..		0.028786842..			
11/11/2016								0.028786842..	0.028786842..
11/14/2016							0.028786842..		
11/15/2016			0.028786842..						
11/16/2016									
11/17/2016					0.02679 (J)				
11/18/2016									
1/17/2017	0.028786842..	0.028786842..		0.028786842..					
1/19/2017						0.028786842..			0.028786842..
1/20/2017								0.028786842..	
1/24/2017							0.028786842..		
1/25/2017					0.028786842..				
1/26/2017			0.028786842..						
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017	0.029051958..			0.029051958..				0.029051958..	0.029051958..
3/17/2017						0.029051958..	0.029051958..		
3/22/2017									
3/23/2017					0.029051958..				
3/24/2017			0.029051958..						
3/28/2017									
3/29/2017									
4/27/2017	0.029051958..	0.029051958..		0.029051958..					
4/28/2017						0.029051958..		0.029051958..	0.029051958..
5/1/2017					0.019204568..		0.019204568..		
5/2/2017			0.019204568..						

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWA-28 (bg)	GWA-29 (bg)	GWC-32	GWA-4 (bg)	GWC-33	GWA-2 (bg)	GWC-30	GWC-27	GWA-1 (bg)
5/3/2017									
5/4/2017									
7/18/2017		0.0212 (J)							
7/19/2017									
8/1/2017		0.026030918..							
8/4/2017					0.026030918..				
10/3/2017	0.026030918..	0.026030918..		0.026030918..		0.026030918..		0.026030918..	
10/4/2017							0.026030918..		0.026030918..
10/5/2017					0.02603 (J)				
10/6/2017			0.026030918..						
1/19/2018	0.028786842..	0.028786842..				0.028786842..		0.028786842..	0.028786842..
1/22/2018				0.028786842..					
1/23/2018			0.028786842..		0.028786842..				
1/24/2018							0.028786842..		
1/25/2018									
6/19/2018	0.019204568..	0.019204568..		0.019204568..		0.019204568..			0.019204568..
6/20/2018									
6/21/2018							0.019204568..		
6/25/2018									
6/26/2018			0.019204568..		0.019204568..				
6/27/2018								0.019204568..	
9/25/2018	0.026030918..	0.026030918..		0.026030918..		0.026030918..			0.026030918..
9/26/2018									
9/27/2018								0.026030918..	
9/28/2018									
10/1/2018									
10/2/2018			0.026030918..		0.026030918..				
10/3/2018							0.026030918..		

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-26	GWC-34	GWC-35	GWC-25	GWC-6	GWC-5	GWC-8	GWC-11	GWC-9
3/22/2016									
3/23/2016									
3/24/2016	0.054051959..	0.054051959..	0.054051959..						
3/28/2016				0.054051959..	0.054051959..	0.054051959..			
3/29/2016							0.054051959..	0.054051959..	0.06755 (J)
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016		0.044204569..	0.044204569..			0.044204569..			
5/24/2016					0.044204569..		0.0162 (J)		0.0923 (J)
5/25/2016	0.044204569..			0.044204569..				0.044204569..	
5/26/2016									
7/21/2016		0.019204568..	0.019204568..		0.019204568..	0.019204568..			
7/22/2016									
7/25/2016								0.019204568..	0.2542
7/26/2016	0.019204568..						0.019204568..		
7/27/2016				0.019204568..					
9/14/2016									
9/15/2016		0.026030918..	0.026030918..		0.026030918..	0.026030918..			
9/16/2016									
9/19/2016	0.026030918..			0.026030918..			0.026030918..	0.026030918..	0.381
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016	0.028786842..								
11/15/2016		0.028786842..	0.028786842..	0.028786842..		0.028786842..			
11/16/2016					0.028786842..		0.028786842..	0.028786842..	0.4438
11/17/2016									
11/18/2016									
1/17/2017									
1/19/2017	0.028786842..								
1/20/2017									
1/24/2017				0.028786842..					
1/25/2017		0.028786842..							
1/26/2017			0.028786842..		0.028786842..	0.028786842..	0.028786842..		
1/31/2017								0.028786842..	0.1138
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017	0.029051958..								
3/17/2017									
3/22/2017		0.029051958..	0.029051958..		0.029051958..	0.029051958..			
3/23/2017				0.029051958..			0.029051958..	0.029051958..	0.07505
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	0.019204568..	0.019204568..							
5/2/2017			0.019204568..	0.019204568..	0.019204568..	0.019204568..		0.019204568..	0.0832

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWC-26	GWC-34	GWC-35	GWC-25	GWC-6	GWC-5	GWC-8	GWC-11	GWC-9
5/3/2017							0.019204568..		
5/4/2017									
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
10/3/2017		0.026030918..	0.026030918..		0.026030918..	0.026030918..			0.121
10/4/2017	0.026030918..							0.02303 (J)	
10/5/2017				0.026030918..			0.026030918..		
10/6/2017									
1/19/2018									
1/22/2018	0.028786842..								
1/23/2018		0.028786842..	0.028786842..		0.028786842..	0.028786842..			
1/24/2018									
1/25/2018				0.028786842..					
6/19/2018			0.019204568..						
6/20/2018		0.019204568..						0.019204568..	
6/21/2018							0.019204568..		0.0642
6/25/2018					0.019204568..	0.019204568..			
6/26/2018									
6/27/2018	0.019204568..			0.019204568..					
9/25/2018					0.026030918..				
9/26/2018				0.02403 (J)			0.026030918..		0.141
9/27/2018	0.026030918..							0.026030918..	
9/28/2018									
10/1/2018			0.026030918..						
10/2/2018		0.026030918..							
10/3/2018						0.026030918..			

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-12	GWC-13	GWC-23	GWC-7	GWC-31	GWC-24	GWC-17	GWC-21	GWC-20
3/22/2016									
3/23/2016									
3/24/2016									
3/28/2016									
3/29/2016	0.054051959..	0.054051959..	0.054051959..	0.054051959..					
3/30/2016					0.054051959..	0.054051959..	0.054051959..	0.054051959..	0.054051959..
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016									
5/24/2016				0.044204569..					
5/25/2016	0.044204569..	0.044204569..	0.044204569..		0.044204569..	0.044204569..	0.044204569..		
5/26/2016								0.044204569..	0.044204569..
7/21/2016									
7/22/2016	0.019204568..			0.019204568..					
7/25/2016									0.019204568..
7/26/2016		0.019204568..						0.019204568..	
7/27/2016			0.019204568..		0.019204568..	0.019204568..	0.019204568..		
9/14/2016									
9/15/2016	0.026030918..	0.026030918..		0.026030918..					
9/16/2016						0.026030918..			
9/19/2016							0.026030918..		
9/20/2016			0.026030918..					0.026030918..	0.026030918..
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016									
11/15/2016									
11/16/2016	0.028786842..			0.028786842..					
11/17/2016		0.028786842..					0.028786842..	0.028786842..	0.028786842..
11/18/2016			0.028786842..			0.028786842..			
1/17/2017									
1/19/2017									
1/20/2017									
1/24/2017									
1/25/2017					0.028786842..				
1/26/2017				0.028786842..					
1/31/2017	0.028786842..	0.028786842..							
2/1/2017							0.029051958..		
2/2/2017								0.029051958..	0.029051958..
2/3/2017			0.029051958..			0.029051958..			
3/16/2017									
3/17/2017									
3/22/2017				0.029051958..					
3/23/2017	0.029051958..	0.029051958..			0.029051958..				
3/24/2017							0.029051958..		
3/28/2017			0.029051958..					0.029051958..	0.029051958..
3/29/2017						0.029051958..			
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017				0.019204568..	0.019204568..				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWC-12	GWC-13	GWC-23	GWC-7	GWC-31	GWC-24	GWC-17	GWC-21	GWC-20
5/3/2017	0.019204568..	0.019204568..					0.019204568..		
5/4/2017			0.019204568..			0.019204568..		0.019204568..	0.019204568..
7/18/2017									
7/19/2017					0.019204568..				
8/1/2017									
8/4/2017					0.026030918..				
10/3/2017				0.026030918..					
10/4/2017	0.02303 (J)						0.026030918..		
10/5/2017		0.026030918..	0.026030918..			0.026030918..			
10/6/2017					0.026030918..			0.026030918..	0.026030918..
1/19/2018									
1/22/2018									
1/23/2018				0.028786842..	0.028786842..				
1/24/2018	0.02679 (J)								
1/25/2018		0.028786842..	0.028786842..			0.028786842..	0.028786842..		
6/19/2018									
6/20/2018		0.019204568..	0.019204568..					0.019204568..	
6/21/2018									0.019204568..
6/25/2018				0.019204568..					
6/26/2018	0.0182 (J)						0.019204568..		
6/27/2018					0.019204568..	0.019204568..			
9/25/2018									
9/26/2018									
9/27/2018								0.026030918..	0.026030918..
9/28/2018	0.026030918..					0.026030918..			
10/1/2018			0.026030918..						
10/2/2018		0.026030918..		0.026030918..			0.026030918..		
10/3/2018					0.026030918..				







# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-28 (bg)	GWA-29 (bg)	GWC-27	GWC-30	GWA-2 (bg)	GWA-4 (bg)	GWA-1 (bg)	GWC-32	GWC-33
3/22/2016	4.692	6.482							
3/23/2016			3.562	4.862	4.922	26.03	2.725	7.012	15.63
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016		5.5				34.02			
5/20/2016				3.79			1.204		
5/23/2016	3.23								
5/24/2016			1.165		3.93			7	9.8
5/25/2016									
5/26/2016									
7/21/2016		5.12		3.32		30.42	1.02		
7/22/2016								7.52	9.42
7/25/2016	2.82								
7/26/2016			1.82		3.52				
7/27/2016									
9/14/2016						30.31			
9/15/2016	1.81						0.01		
9/16/2016					2.91			8.01	10.31
9/19/2016			0.51						
9/20/2016				2.51					
11/9/2016	3.356								
11/10/2016					4.456	27.76			
11/11/2016			4.056				1.346		
11/14/2016				3.556					
11/15/2016								7.656	
11/16/2016									
11/17/2016									
11/18/2016									
1/17/2017	3.156	4.456				26.76			
1/19/2017					4.956		1.346		
1/20/2017			2.956						
1/24/2017				3.856					
1/25/2017									0.881434173..
1/26/2017								13.76	
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017	4.532		2.832			28.83	2.552		
3/17/2017				4.732	5.232				
3/22/2017									
3/23/2017									16.83
3/24/2017								13.83	
3/28/2017									
3/29/2017									
4/27/2017	4.232	5.732				28.83			
4/28/2017			2.712		5.732		2.552		
5/1/2017				3.42					10.42
5/2/2017								15.42	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-28 (bg)	GWA-29 (bg)	GWC-27	GWC-30	GWA-2 (bg)	GWA-4 (bg)	GWA-1 (bg)	GWC-32	GWC-33
5/3/2017									
5/4/2017									
7/18/2017		0.545023280.. (*)							
7/19/2017									
8/1/2017		3.11							
8/4/2017									10.31
10/3/2017	2.01	3.41	0.41		3.51	29.31			
10/4/2017				2.61			0.04		
10/5/2017									15.31
10/6/2017								14.31	
1/19/2018	3.356	4.456	3.256		4.556		1.456		
1/22/2018						33.76			
1/23/2018								12.76	10.76
1/24/2018				3.956					
1/25/2018									
6/19/2018	2.92	4.52			3.82	26.42	1.17		
6/20/2018									
6/21/2018				3.72					
6/25/2018									
6/26/2018								7.52	13.42
6/27/2018			2.82						
9/25/2018	2.11	3.91			3.31	28.31	0.04		
9/26/2018									
9/27/2018			2.71						
9/28/2018									
10/1/2018									
10/2/2018								7.01	14.31
10/3/2018				2.61					

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-34	GWC-35	GWC-26	GWC-5	GWC-6	GWC-25	GWC-9	GWC-12	GWC-13
3/22/2016									
3/23/2016									
3/24/2016	5.102	3.802	3.552						
3/28/2016				25.73	12.63	14.13			
3/29/2016							14.43	34.43	5.742
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016	3.24	2.39		26.72					
5/24/2016					13.42		15.32		
5/25/2016			2.1			7.62		38.72	4.48
5/26/2016									
7/21/2016	3.02	2.12		21.42	12.42				
7/22/2016								32.42	
7/25/2016							23.42		
7/26/2016			1.82						4.12
7/27/2016						5.82			
9/14/2016									
9/15/2016	2.21	1.21		19.31	15.31			32.31	3.01
9/16/2016									
9/19/2016			0.81			7.71	24.31		
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016			2.556						
11/15/2016	3.256	2.556		20.76		10.76			
11/16/2016					14.76		28.76	34.76	
11/17/2016									4.256
11/18/2016									
1/17/2017									
1/19/2017			2.356						
1/20/2017									
1/24/2017						14.76			
1/25/2017	3.456								
1/26/2017		2.956		16.76	13.76				
1/31/2017							18.76	40.76	4.856
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017			3.532						
3/17/2017									
3/22/2017	4.532	3.632		18.83	13.83				
3/23/2017						14.83	20.83	38.83	5.732
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	3.52		2.02						
5/2/2017		2.52		38.42	12.42	41.42	18.42		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-34	GWC-35	GWC-26	GWC-5	GWC-6	GWC-25	GWC-9	GWC-12	GWC-13
5/3/2017								41.42	4.52
5/4/2017									
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
10/3/2017	2.51	1.41		26.31	13.31		18.31		
10/4/2017			1.11					39.31	
10/5/2017						10.31			3.81
10/6/2017									
1/19/2018									
1/22/2018			2.656						
1/23/2018	3.756	2.956		31.76	14.76				
1/24/2018							16.76	38.76	
1/25/2018						12.76			5.356
6/19/2018		2.42							
6/20/2018	3.62								4.42
6/21/2018							13.42		
6/25/2018				35.42	12.42				
6/26/2018								38.42	
6/27/2018			2.12			8.92			
9/25/2018					14.31				
9/26/2018						8.51	17.31		
9/27/2018			1.41						
9/28/2018								45.31	
10/1/2018		1.41							
10/2/2018	2.41								3.51
10/3/2018				31.31					

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-8	GWC-7	GWC-23	GWC-11	GWC-21	GWC-14	GWC-10	GWC-20	GWC-19
3/22/2016									
3/23/2016									
3/24/2016									
3/28/2016									
3/29/2016	29.03	72.63	5.152	16.83					
3/30/2016					4.812	15.63	29.43	10.61	10.15
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016									
5/24/2016	31.22	63.62							
5/25/2016			3.82	18.92		22.62	28.92		
5/26/2016					3.58			9.55	7.2
7/21/2016									
7/22/2016		56.42							
7/25/2016				14.42				8.12	5.12
7/26/2016	24.42				3.32	28.42			
7/27/2016			3.32				29.42		
9/14/2016									
9/15/2016		59.31				29.31			
9/16/2016							26.31		
9/19/2016	29.31			17.31					3.61
9/20/2016			2.61		2.91			8.21	
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016									
11/15/2016									
11/16/2016	30.76	59.76		15.76					
11/17/2016					3.556	46.76	29.76	8.656	4.856
11/18/2016			3.656						
1/17/2017									
1/19/2017									
1/20/2017									
1/24/2017									
1/25/2017									
1/26/2017	29.76	61.76							
1/31/2017				8.756					
2/1/2017						16.83	27.83		
2/2/2017					5.132			10.73	15.83
2/3/2017			5.132						
3/16/2017									
3/17/2017									
3/22/2017		57.83							
3/23/2017	34.83			11.13		19.83			
3/24/2017							25.83		10.53
3/28/2017			4.932		5.032			9.732	
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017		59.42		14.42					



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-31	GWC-24	GWC-16	GWC-15	GWC-18	GWC-17	GWA-3 (bg)	GWC-22
3/22/2016								
3/23/2016								
3/24/2016								
3/28/2016								
3/29/2016								
3/30/2016	13.13	2.842	8.552	15.13	8.712	9.982		
3/31/2016							41.43	13.33
5/19/2016								
5/20/2016								
5/23/2016								
5/24/2016								
5/25/2016	13.32	1.11	7.51	11.02		9.1	28.72	
5/26/2016					6.84			11.92
7/21/2016								
7/22/2016								
7/25/2016					5.72			
7/26/2016				7.62				9.92
7/27/2016	12.42	0.82	6.82			8.32	22.42	
9/14/2016								
9/15/2016								
9/16/2016		0.61	6.01					
9/19/2016					4.71	7.11		
9/20/2016				6.21				10.31
11/9/2016								
11/10/2016								
11/11/2016								
11/14/2016								
11/15/2016								
11/16/2016								
11/17/2016			7.056	6.856	6.256	8.256		10.76
11/18/2016		2.056						
1/17/2017								
1/19/2017								
1/20/2017								
1/24/2017								
1/25/2017	9.056							
1/26/2017								
1/31/2017								
2/1/2017			8.632	11.43	9.132	10.53		
2/2/2017								
2/3/2017		3.032						12.83
3/16/2017								
3/17/2017								
3/22/2017								
3/23/2017	11.83			11.73				
3/24/2017			8.132		8.232	9.332		
3/28/2017								11.63
3/29/2017		3.132						
4/27/2017								
4/28/2017								
5/1/2017								
5/2/2017	10.22							

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWC-31	GWC-24	GWC-16	GWC-15	GWC-18	GWC-17	GWA-3 (bg)	GWC-22
5/3/2017			7.32	9.82	7.22	8.62		10.42
5/4/2017		2.02						
7/18/2017								
7/19/2017	10.42							
8/1/2017							71.31	
8/4/2017	12.31							
10/3/2017							90.31	
10/4/2017				8.61		8.41		
10/5/2017		0.71	6.71		6.61			10.31
10/6/2017	12.31							
1/19/2018								
1/22/2018								
1/23/2018	11.76							
1/24/2018								
1/25/2018		2.056	7.856	11.76	7.856	9.056		10.76
6/19/2018								
6/20/2018			7.32	11.42			43.42	10.42
6/21/2018					6.82			
6/25/2018								
6/26/2018						8.12		
6/27/2018	10.02	0.8						
9/25/2018								
9/26/2018								
9/27/2018								
9/28/2018		0.12			6.21			
10/1/2018			6.31	7.31				9.31
10/2/2018						7.51		
10/3/2018	10.31							











# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-22	GWC-23	GWC-24	GWC-25	GWC-26	GWC-27	GWC-30	GWC-31	GWC-32
3/22/2016									
3/23/2016						1.0825	1.3598		1.0533
3/24/2016					2.8217				
3/28/2016				5.992					
3/29/2016		1.9463							
3/30/2016			4.6264					1.9069	
3/31/2016	1.8479								
5/19/2016									
5/20/2016							1.4		
5/23/2016									
5/24/2016						1.08			1.1
5/25/2016		1.96	4.6		2.93			1.89	
5/26/2016	1.71			8.14					
7/21/2016							1.4		
7/22/2016									1.1
7/25/2016									
7/26/2016	1.8				3	1.1			
7/27/2016		2.1	4.9	6.3					
9/14/2016									
9/15/2016									
9/16/2016			3.6						1.1
9/19/2016				5.1	2.9	1			
9/20/2016	1.7	1.9					1.3		
11/9/2016									
11/10/2016									
11/11/2016						0.97 (J)			
11/14/2016					2.8		1.3		
11/15/2016				3.9					1.1
11/16/2016									
11/17/2016	1.7								
11/18/2016		1.8	3.4						
1/17/2017									
1/19/2017					2.8				
1/20/2017						0.99 (J)			
1/24/2017				3.6			1.3		
1/25/2017								1.9	
1/26/2017									1.1
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017	1.6	1.9	3.6						
3/16/2017					2.7	1			
3/17/2017							1.3		
3/22/2017									
3/23/2017				3.2					
3/24/2017									1.1
3/28/2017	1.5	1.8							
3/29/2017			3.2						
4/27/2017									
4/28/2017						0.96 (J)			
5/1/2017					2.8		1.3		
5/2/2017				3.5					0.99 (J)

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:08 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-22	GWC-23	GWC-24	GWC-25	GWC-26	GWC-27	GWC-30	GWC-31	GWC-32
5/3/2017	1.5								
5/4/2017		1.8	3.2						
7/18/2017									
7/19/2017								1.6	
8/1/2017									
8/4/2017									
8/24/2017									
10/3/2017						0.96 (J)			
10/4/2017					2.8		1.2		
10/5/2017	1.5	1.8	3.3	3.5					
10/6/2017								1.7	1.1
1/19/2018						0.91 (J)			
1/22/2018					2.6				
1/23/2018								1.4	<1
1/24/2018							1.1		
1/25/2018	1.3	1.6	3.1	3.6					
6/19/2018									
6/20/2018	1.5	1.9							
6/21/2018							1.2		
6/25/2018									
6/26/2018									0.89 (J)
6/27/2018			3.8	5.2	2.8	0.92 (J)		1.5	
9/25/2018									
9/26/2018				5.6					
9/27/2018					3	1			
9/28/2018			3.8						
10/1/2018	1.6	1.9							
10/2/2018									1
10/3/2018							1.4	1.7	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-33	GWC-34	GWC-35	GWC-5	GWC-6	GWC-7	GWC-8	GWC-9
3/22/2016								
3/23/2016	2.2604							
3/24/2016		1.2259	4.4998					
3/28/2016				9.818	5.312			
3/29/2016							3.5914	7.395
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	32.8	3.16	16.4
5/25/2016								
5/26/2016								
7/21/2016		1.3	4.4	11	6.6			
7/22/2016						31		
7/25/2016								55
7/26/2016							5.9	
7/27/2016								
9/14/2016								
9/15/2016		1.2	4	10	6.1	29		
9/16/2016								
9/19/2016							5.4	73
9/20/2016								
11/9/2016								
11/10/2016								
11/11/2016								
11/14/2016								
11/15/2016		1.2	4.2	11				
11/16/2016					6.2	32	6.2	83
11/17/2016	2.5							
11/18/2016								
1/17/2017								
1/19/2017								
1/20/2017								
1/24/2017								
1/25/2017	2.1	1.2						
1/26/2017			4.2	9.2	5.8	29	3.6	
1/31/2017								17
2/1/2017								
2/2/2017								
2/3/2017								
3/16/2017								
3/17/2017								
3/22/2017		1.1	3.9	8.7	5.2	28		
3/23/2017	2						3.9	8.2
3/24/2017								
3/28/2017								
3/29/2017								
4/27/2017								
4/28/2017								
5/1/2017	2.1	1.1						
5/2/2017			4	13	5.1	26		11

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/24/2019 9:08 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-33	GWC-34	GWC-35	GWC-5	GWC-6	GWC-7	GWC-8	GWC-9
5/3/2017							6.1	
5/4/2017								
7/18/2017								
7/19/2017	2.1							
8/1/2017								
8/4/2017	1.9							
8/24/2017	1.9							
10/3/2017		1.1	3.8	12	5.4	23		10
10/4/2017								
10/5/2017	2.1						6.4	
10/6/2017								
1/19/2018								
1/22/2018								
1/23/2018	2	0.95 (J)	3.5	13	5.1	18		
1/24/2018							3.5	5.6
1/25/2018								
6/19/2018			3.4					
6/20/2018		1.1						
6/21/2018							4.5	4.5
6/25/2018				12	5.5	19		
6/26/2018	2							
6/27/2018								
9/25/2018					6.3			
9/26/2018							5.4	19
9/27/2018								
9/28/2018								
10/1/2018			3.6					
10/2/2018	2.2	1.1				19		
10/3/2018				17				



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-27	GWA-4 (bg)	GWC-30	GWC-32	GWA-1 (bg)	GWC-33
3/22/2016	2.297	1.518							
3/23/2016			0.1079 (J)	0.5562	0.1516 (J)	0.1802 (J)	2.201	0.09933 (J)	2.896
3/24/2016									
3/28/2016									
3/29/2016									
3/30/2016									
3/31/2016									
5/19/2016	2.375				0.1032 (J)				
5/20/2016						0.1292 (J)		0.04516 (J)	
5/23/2016		1.645							
5/24/2016			0.04816 (J)	0.2232 (J)			2.735		
5/25/2016									
5/26/2016									
7/21/2016	3.225				0.125164500..	0.1352 (J)		0.125164500..	
7/22/2016							3.525		
7/25/2016		1.725							
7/26/2016			0.125164500..	1.225					
7/27/2016									
9/14/2016						0.061968581..			
9/15/2016		1.562						0.061968581..	
9/16/2016			0.061968581..				3.462		
9/19/2016				0.602					
9/20/2016						0.05397 (J)			
11/9/2016		1.628							
11/10/2016			0.027528188..		0.027528188..				
11/11/2016				1.128				0.027528188..	
11/14/2016						0.027528188..			
11/15/2016							3.128		
11/16/2016									
11/17/2016									4.028
11/18/2016									
1/17/2017	2.528	1.528			0.027528188..				
1/19/2017			0.027528188..					0.027528188..	
1/20/2017				0.7575					
1/24/2017						0.02153 (J)			
1/25/2017									5.528
1/26/2017							3.828		
1/31/2017									
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017		1.78		0.4003	0.180330569..			0.180330569..	
3/17/2017			0.180330569..			0.1643 (J)			
3/22/2017									
3/23/2017									3.18
3/24/2017							3.28		
3/28/2017									
3/29/2017									
4/27/2017	2.58	1.48			0.180330569..				
4/28/2017			0.180330569..	0.9103				0.180330569..	
5/1/2017						0.1172 (J)			4.225
5/2/2017							3.525		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-29 (bg)	GWA-28 (bg)	GWA-2 (bg)	GWC-27	GWA-4 (bg)	GWC-30	GWC-32	GWA-1 (bg)	GWC-33
5/3/2017									
5/4/2017									
7/18/2017	2.225								
7/19/2017									3.425
8/1/2017	2.462								
8/4/2017									3.962
8/24/2017									4.162
10/3/2017	2.262	1.662	0.061968581..	0.142 (J)	0.061968581..				
10/4/2017						0.05297 (J)		0.061968581..	
10/5/2017									3.862
10/6/2017							3.462		
1/19/2018	2.028	1.328	0.027528188..	0.5275				0.027528188..	
1/22/2018					0.027528188..				
1/23/2018							3.028		3.328
1/24/2018						0.027528188..			
1/25/2018									
6/19/2018	2.325	1.625	0.125164500..		0.1092 (J)			0.125164500..	
6/20/2018									
6/21/2018						0.125164500..			
6/25/2018									
6/26/2018							2.625		2.125
6/27/2018				0.7552					
9/25/2018	2.262	1.662	0.061968581..		0.061968581..			0.061968581..	
9/26/2018									
9/27/2018				0.872					
9/28/2018									
10/1/2018									
10/2/2018							2.362		2.062
10/3/2018						0.09197 (J)			

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-34	GWC-35	GWC-26	GWC-5	GWC-6	GWC-25	GWC-9	GWC-8	GWC-12
3/22/2016									
3/23/2016									
3/24/2016	0.2456 (J)	0.1199 (J)	0.1121 (J)						
3/28/2016				0.1919 (J)	0.1555 (J)	0.1345 (J)			
3/29/2016							0.1474 (J)	0.1501 (J)	0.2739 (J)
3/30/2016									
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016	0.1802 (J)	0.05946 (J)		0.1274 (J)					
5/24/2016					0.1062 (J)		0.08516 (J)	0.09716 (J)	
5/25/2016			0.05336 (J)						0.2049 (J)
5/26/2016						0.05916 (J)			
7/21/2016	0.2152 (J)	0.125164500..		0.1352 (J)	0.1132 (J)				
7/22/2016									0.2452
7/25/2016							0.1212 (J)		
7/26/2016			0.125164500..					0.1172 (J)	
7/27/2016						0.125164500..			
9/14/2016									
9/15/2016	0.122 (J)	0.061968581..		0.04597 (J)	0.04597 (J)				0.142 (J)
9/16/2016									
9/19/2016			0.061968581..			0.061968581..	0.061968581..	0.061968581..	
9/20/2016									
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016			0.027528188..						
11/15/2016	0.06753 (J)	0.027528188..		0.027528188..		0.027528188..			
11/16/2016					0.027528188..		0.027528188..	0.027528188..	0.08753 (J)
11/17/2016									
11/18/2016									
1/17/2017									
1/19/2017			0.027528188..						
1/20/2017									
1/24/2017						0.027528188..			
1/25/2017	0.08753 (J)								
1/26/2017		0.027528188..		0.027528188..	0.027528188..			0.027528188..	
1/31/2017							0.027528188..		0.1175 (J)
2/1/2017									
2/2/2017									
2/3/2017									
3/16/2017			0.180330569..						
3/17/2017									
3/22/2017	0.2203 (J)	0.180330569..		0.180330569..	0.180330569..				
3/23/2017						0.180330569..	0.2003 (J)	0.180330569..	0.2503 (J)
3/24/2017									
3/28/2017									
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017	0.1852 (J)		0.125164500..						
5/2/2017		0.125164500..		0.1252 (J)	0.125164500..	0.125164500..	0.125164500..		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

Date	GWC-34	GWC-35	GWC-26	GWC-5	GWC-6	GWC-25	GWC-9	GWC-8	GWC-12
5/3/2017								0.125164500..	0.2152 (J)
5/4/2017									
7/18/2017									
7/19/2017									
8/1/2017									
8/4/2017									
8/24/2017									
10/3/2017	0.132 (J)	0.061968581..		0.05097 (J)	0.061968581..		0.061968581..		
10/4/2017			0.061968581..						0.162
10/5/2017						0.061968581..		0.04697 (J)	
10/6/2017									
1/19/2018									
1/22/2018			0.027528188..						
1/23/2018	0.05753 (J)	0.027528188..		0.01253 (J)	0.027528188..				
1/24/2018							0.027528188..	0.027528188..	0.08753 (J)
1/25/2018						0.027528188..			
6/19/2018		0.125164500..							
6/20/2018	0.2052 (J)								
6/21/2018							0.125164500..	0.125164500..	
6/25/2018				0.1222 (J)	0.125164500..				
6/26/2018									0.2052 (J)
6/27/2018			0.125164500..			0.125164500..			
9/25/2018					0.061968581..				
9/26/2018						0.061968581..	0.04397 (J)	0.061968581..	
9/27/2018			0.061968581..						
9/28/2018									0.162
10/1/2018		0.061968581..							
10/2/2018	0.142 (J)								
10/3/2018				0.09197 (J)					

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/24/2019 9:08 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-13	GWC-23	GWC-7	GWC-11	GWC-14	GWC-21	GWC-15	GWC-18	GWC-31
3/22/2016									
3/23/2016									
3/24/2016									
3/28/2016									
3/29/2016	0.1887 (J)	0.1111 (J)	0.2982 (J)	0.218 (J)					
3/30/2016					0.1158 (J)	0.09403 (J)	0.1588 (J)	0.1165 (J)	1.605
3/31/2016									
5/19/2016									
5/20/2016									
5/23/2016									
5/24/2016			0.2412 (J)						
5/25/2016	0.1254 (J)	0.05366 (J)		0.1773 (J)	0.05166 (J)		0.1009 (J)		1.675
5/26/2016						0.03916 (J)		0.06316 (J)	
7/21/2016									
7/22/2016			0.2552						
7/25/2016				0.2352				0.125164500..	
7/26/2016	0.1452 (J)				0.1252 (J)	0.125164500..	0.1352 (J)		
7/27/2016		0.125164500..							
9/14/2016									
9/15/2016	0.06197 (J)		0.182		0.061968581..				
9/16/2016									
9/19/2016				0.112 (J)				0.061968581..	
9/20/2016		0.061968581..				0.061968581..	0.061968581..		
11/9/2016									
11/10/2016									
11/11/2016									
11/14/2016									
11/15/2016									
11/16/2016			0.1475	0.06753 (J)					
11/17/2016	0.01953 (J)				0.027528188..	0.027528188..	0.027528188..	0.027528188..	
11/18/2016		0.027528188..							
1/17/2017									
1/19/2017									
1/20/2017									
1/24/2017									
1/25/2017									1.328
1/26/2017			0.1575						
1/31/2017	0.03753 (J)			0.027528188..					
2/1/2017					0.180330569..		0.1663 (J)	0.180330569..	
2/2/2017						0.180330569..			
2/3/2017		0.180330569..							
3/16/2017									
3/17/2017									
3/22/2017			0.2803						
3/23/2017	0.1683 (J)			0.1773 (J)	0.180330569..		0.180330569..		
3/24/2017								0.180330569..	
3/28/2017		0.180330569..				0.180330569..			
3/29/2017									
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			0.2352	0.1352 (J)					









# Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 8:07 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (S.U.)	GWA-1	5.783	4.991	9/25/2018	5.355	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-2	5.863	5.552	9/25/2018	5.626	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-28	6.706	5.653	9/25/2018	5.936	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-29	6.338	5.579	9/25/2018	5.788	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWA-3	6.975	5.796	n/a	1 future	n/a	4	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWA-4	6.608	5.991	9/25/2018	6.224	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
<b>pH (S.U.)</b>	<b>GWC-10</b>	<b>7.034</b>	<b>5.623</b>	<b>9/27/2018</b>	<b>5.5</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.0001297</b>	<b>Param Intra 1 of 3</b>
pH (S.U.)	GWC-11	6.487	5.753	9/27/2018	6.048	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-12	7.742	6.595	9/28/2018	7.556	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-13	7.422	6.312	10/2/2018	6.679	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-14	6.203	4.773	10/1/2018	5.823	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-15	7.077	6.172	10/1/2018	6.599	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-16	6.31	5.883	10/1/2018	6.097	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-17	6.383	6.015	10/2/2018	6.199	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
<b>pH (S.U.)</b>	<b>GWC-18</b>	<b>6.16</b>	<b>5.8</b>	<b>9/28/2018</b>	<b>5.77</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.0001297</b>	<b>Param Intra 1 of 3</b>
pH (S.U.)	GWC-19	6.307	5.673	9/27/2018	5.784	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-20	7.203	5.554	9/27/2018	6.29	No	9	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-21	6.356	5.008	9/27/2018	5.159	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-22	6.83	6.36	10/1/2018	6.636	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-23	7.032	5.178	10/1/2018	5.58	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-24	7.237	4.717	9/28/2018	5.41	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-25	7.273	5.169	9/26/2018	6.364	No	13	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-26	6.036	5.418	9/27/2018	5.744	No	11	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-27	5.97	5.236	9/27/2018	5.691	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-30	6.567	5.63	10/3/2018	6.342	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-31	6.314	5.852	10/3/2018	6.204	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-32	6.429	5.901	10/2/2018	6.06	No	10	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-33	6.852	5.884	10/2/2018	6.371	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-34	6.531	5.404	10/2/2018	5.88	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-35	6.141	5.14	10/1/2018	5.576	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-5	7.298	5.745	10/3/2018	6.33	No	11	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-6	6.538	5.602	9/25/2018	5.87	No	11	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-7	6.579	6.166	10/2/2018	6.31	No	11	0	No	0.0001297	Param Intra 1 of 3
pH (S.U.)	GWC-8	6.544	5.705	9/26/2018	5.846	No	12	0	No	0.0001297	Param Intra 1 of 3 De...
pH (S.U.)	GWC-9	6.353	5.484	9/26/2018	5.668	No	10	0	No	0.0001297	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-1	0.5	n/a	9/25/2018	0.5	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWA-2	2.149	n/a	9/25/2018	0.7631	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-28	1.624	n/a	9/25/2018	1.159	No	11	9.091	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-29	12.57	n/a	9/25/2018	9.309	No	10	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWA-3	362	n/a	n/a	1 future	n/a	5	0	No	0.0002595	Param Intra 1 of 3
Sulfate (mg/L)	GWA-4	13.97	n/a	9/25/2018	9.968	No	11	0	n/a	0.002806	NP Intra (normality) ...
Sulfate (mg/L)	GWC-10	48.08	n/a	9/27/2018	25.18	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-11	3.21	n/a	9/27/2018	1.07666...	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-12	24.98	n/a	9/28/2018	23.42	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-13	2.844	n/a	10/2/2018	2.679	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-14	32.78	n/a	10/1/2018	10.32	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-15	2.09	n/a	10/1/2018	1.619	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-16	0.5274	n/a	10/1/2018	0.4986	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-17	0.7659	n/a	10/2/2018	0.53969...	No	11	63.64	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-18	0.6011	n/a	9/28/2018	0.51849...	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...

## Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 8:07 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	GWC-19	7.166	n/a	9/27/2018	2.05753...	No	11	36.36	sqrt(x)	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-20	1.362	n/a	9/27/2018	1.2	No	10	0	No	0.0002595	Param Intra 1 of 3
Sulfate (mg/L)	GWC-21	0.5	n/a	9/27/2018	0.5ND	No	10	90	n/a	0.00344	NP Intra (NDs) 1 of 3
Sulfate (mg/L)	GWC-22	0.5404	n/a	10/1/2018	0.4939	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-23	0.5249	n/a	10/1/2018	0.49134...	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-24	0.9043	n/a	9/28/2018	0.55833...	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-25	31.23	n/a	9/26/2018	13.89	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-26	0.5208	n/a	9/27/2018	0.48131...	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of ...
Sulfate (mg/L)	GWC-27	3.405	n/a	9/27/2018	2.711	No	11	9.091	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-30	1.466	n/a	10/3/2018	1.182	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-31	23.18	n/a	10/3/2018	18	No	7	0	No	0.0002595	Param Intra 1 of 3
Sulfate (mg/L)	GWC-32	15	n/a	10/2/2018	10.42	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-33	44.66	n/a	10/2/2018	14.66	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-34	1.822	n/a	10/2/2018	1.427	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-35	2.908	n/a	10/1/2018	2.817	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-5	31.24	n/a	10/3/2018	27.5	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-6	18.04	n/a	9/25/2018	13.57	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-7	103.8	n/a	10/2/2018	60	No	10	0	No	0.0002595	Param Intra 1 of 3
Sulfate (mg/L)	GWC-8	44.63	n/a	9/26/2018	19.65	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Sulfate (mg/L)	GWC-9	38.76	n/a	9/26/2018	18.78	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-1	25.59	n/a	9/25/2018	13.21	No	11	45.45	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-2	69.69	n/a	9/25/2018	21.96	No	11	27.27	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-28	106.7	n/a	9/25/2018	40.42	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-29	112.8	n/a	9/25/2018	89.73	No	10	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWA-3	865.8	n/a	n/a	1 future	n/a	5	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-4	191.2	n/a	9/25/2018	144.5	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-10	287.6	n/a	9/27/2018	170	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-11	250.7	n/a	9/27/2018	108.3	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-12	242.8	n/a	9/28/2018	183.8	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-13	81.22	n/a	10/2/2018	64.75	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-14	493.1	n/a	10/1/2018	155.7	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-15	108.2	n/a	10/1/2018	95.67	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-16	133.2	n/a	10/1/2018	99.17	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-17	136.4	n/a	10/2/2018	104.8	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-18	105.7	n/a	9/28/2018	71.67	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-19	96.44	n/a	9/27/2018	63.67	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-20	121.7	n/a	9/27/2018	110	No	10	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-21	74.89	n/a	9/27/2018	56	No	10	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-22	143.5	n/a	10/1/2018	124.4	No	11	9.091	No	0.0002595	Param Intra 1 of 3 De...
<b>Total Dissolved Solids (mg/L)</b>	<b>GWC-23</b>	<b>80.96</b>	<b>n/a</b>	<b>10/1/2018</b>	<b>114.5</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.0002595</b>	<b>Param Intra 1 of 3 De...</b>
Total Dissolved Solids (mg/L)	GWC-24	35.65	n/a	9/28/2018	24.58	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-25	115	n/a	9/26/2018	65.58	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-26	69.66	n/a	9/27/2018	55.88	No	11	9.091	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-27	76.95	n/a	9/27/2018	54.54	No	11	9.091	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-30	74.92	n/a	10/3/2018	26.75	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-31	171.2	n/a	10/3/2018	86	No	7	0	No	0.0002595	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-32	127.5	n/a	10/2/2018	84.67	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-33	148.9	n/a	10/2/2018	133.3	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-34	95.23	n/a	10/2/2018	83.42	No	11	18.18	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-35	69.56	n/a	10/1/2018	37.79	No	11	9.091	No	0.0002595	Param Intra 1 of 3 De...

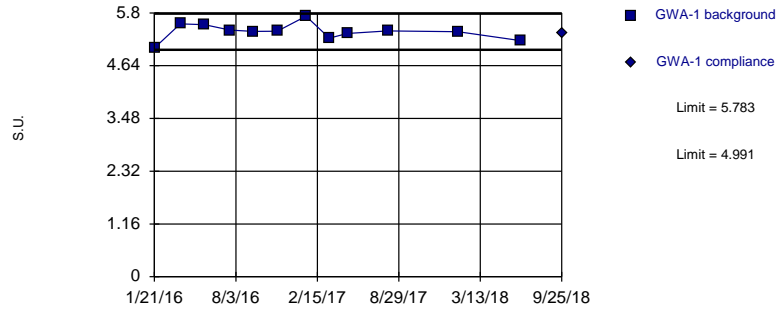
# Prediction Limit

Plant Wansley Client: Southern Company Data: Wansley Landfill Printed 1/24/2019, 8:07 AM

<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>
Total Dissolved Solids (mg/L)	GWC-5	237.1	n/a	10/3/2018	209.3	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-6	160.1	n/a	9/25/2018	114.4	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-7	535.2	n/a	10/2/2018	438.4	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-8	266.9	n/a	9/26/2018	159.3	No	11	0	No	0.0002595	Param Intra 1 of 3 De...
Total Dissolved Solids (mg/L)	GWC-9	331.1	n/a	9/26/2018	97.08	No	11	0	No	0.0002595	Param Intra 1 of 3 De...

Within Limits

pH  
Intrawell Parametric

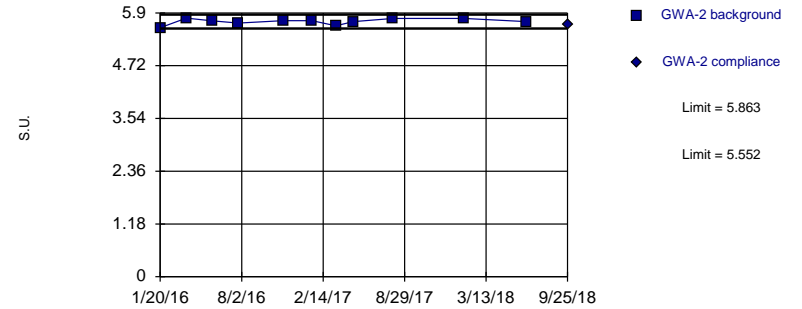


Background Data Summary: Mean=5.387, Std. Dev.=0.1807, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9609, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

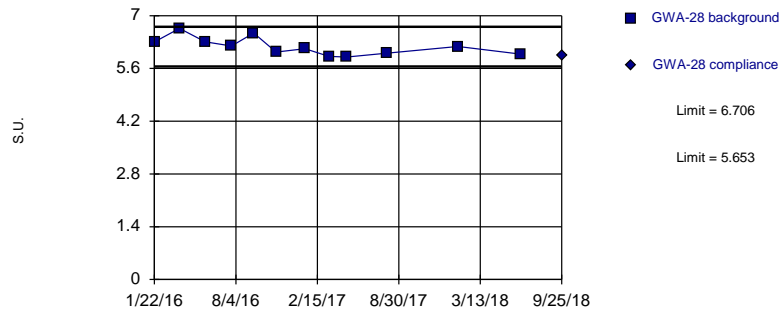


Background Data Summary: Mean=5.708, Std. Dev.=0.06784, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9012, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

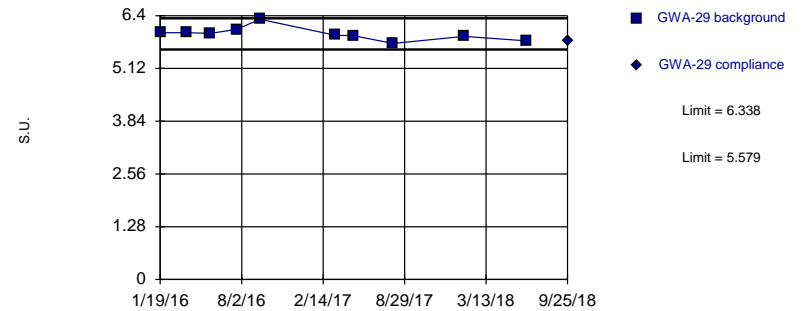


Background Data Summary: Mean=6.18, Std. Dev.=0.2402, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9196, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

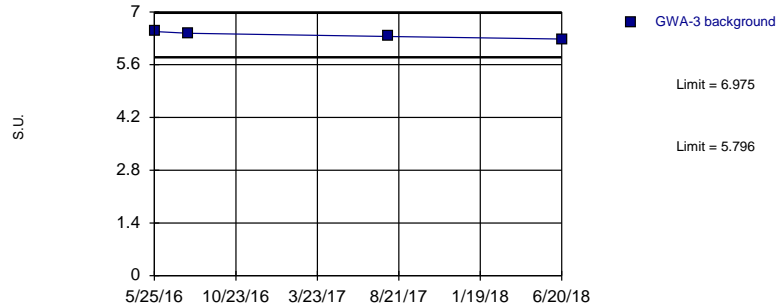
pH  
Intrawell Parametric



Background Data Summary: Mean=5.959, Std. Dev.=0.159, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9181, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:03 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

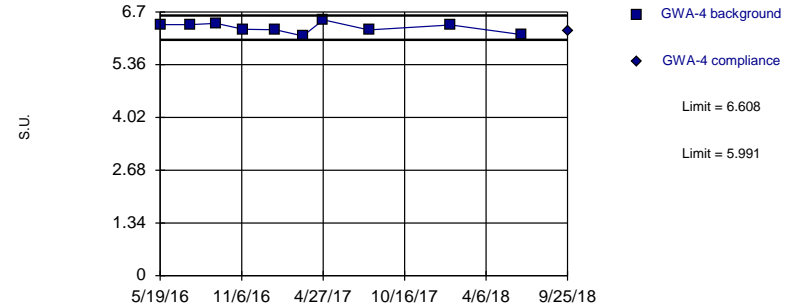
pH  
Intrawell Parametric, GWA-3 (bg)



Background Data Summary: Mean=6.386, Std. Dev.=0.08851, n=4. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9731, critical = 0.687. Kappa = 6.664 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595. Assumes 1 future value.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits  
pH  
Intrawell Parametric

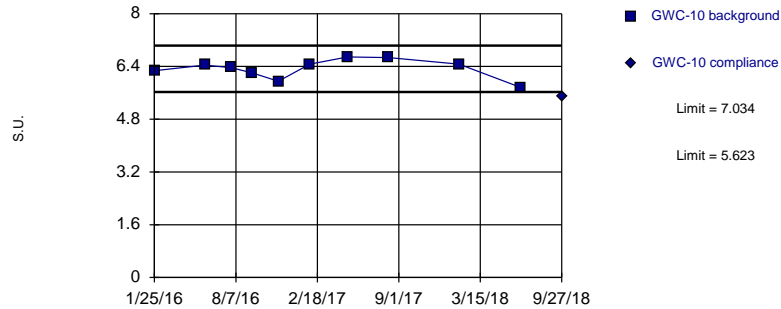


Background Data Summary: Mean=6.299, Std. Dev.=0.1292, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limits

pH  
Intrawell Parametric

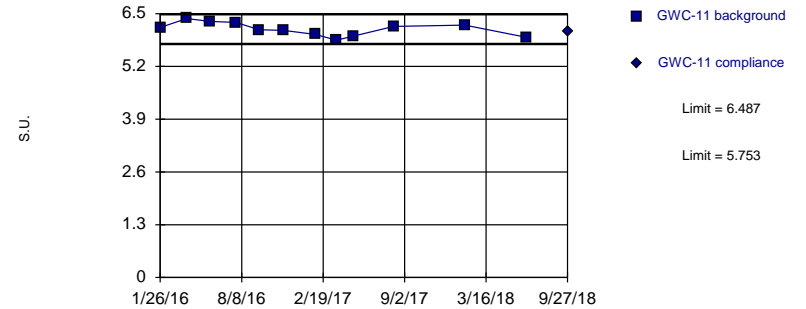


Background Data Summary: Mean=6.329, Std. Dev.=0.2957, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.93, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

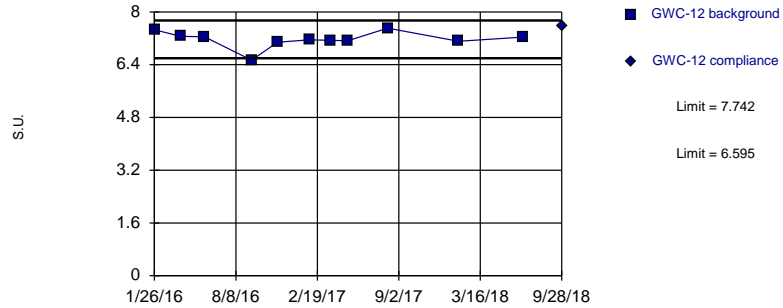


Background Data Summary: Mean=6.12, Std. Dev.=0.1673, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.969, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

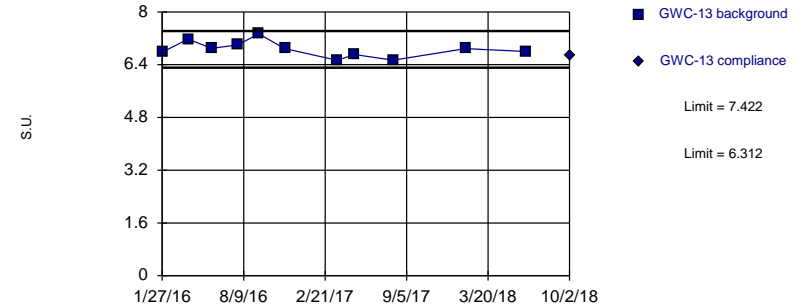


Background Data Summary: Mean=7.168, Std. Dev.=0.2504, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8387, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

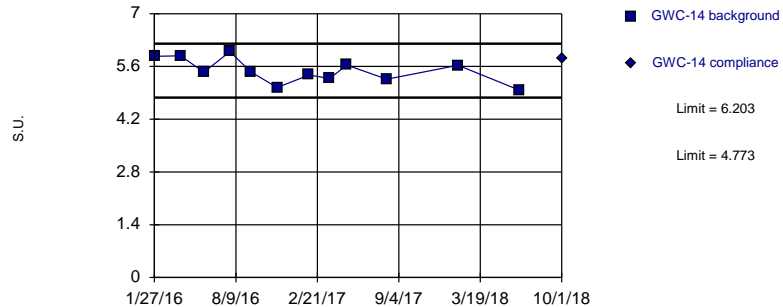


Background Data Summary: Mean=6.867, Std. Dev.=0.2426, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9523, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

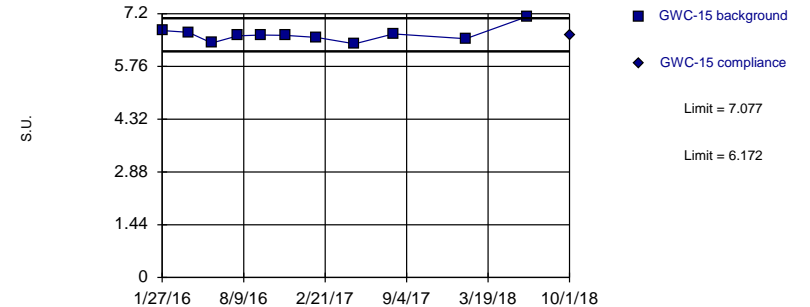


Background Data Summary: Mean=5.488, Std. Dev.=0.3262, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9589, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

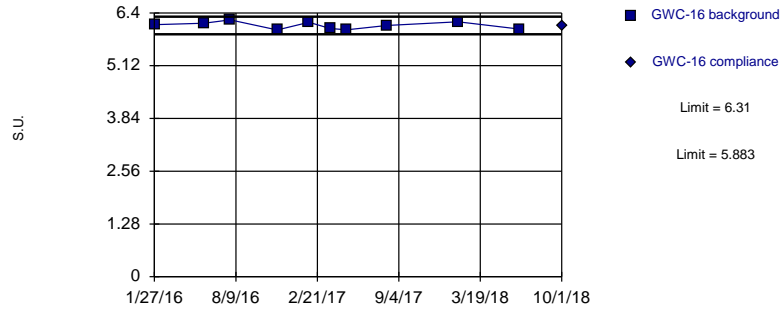


Background Data Summary: Mean=6.625, Std. Dev.=0.1978, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8664, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

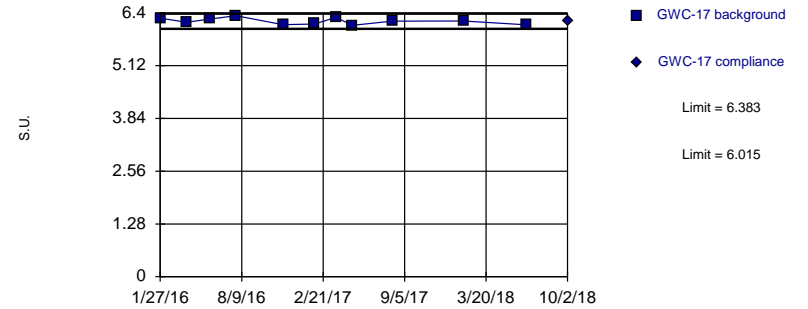


Background Data Summary: Mean=6.097, Std. Dev.=0.08934, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9173, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

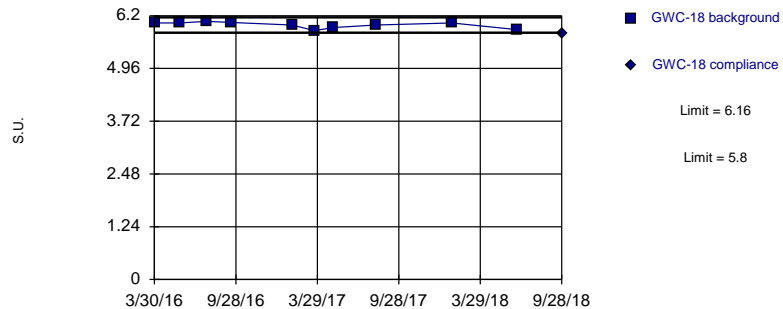


Background Data Summary: Mean=6.199, Std. Dev.=0.08036, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9304, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limits

pH  
Intrawell Parametric

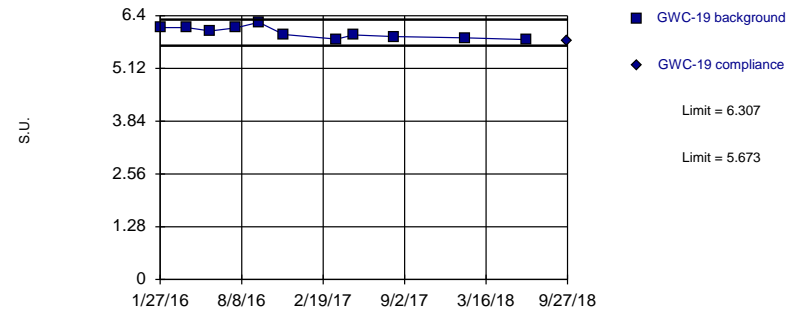


Background Data Summary: Mean=5.98, Std. Dev.=0.07545, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8771, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

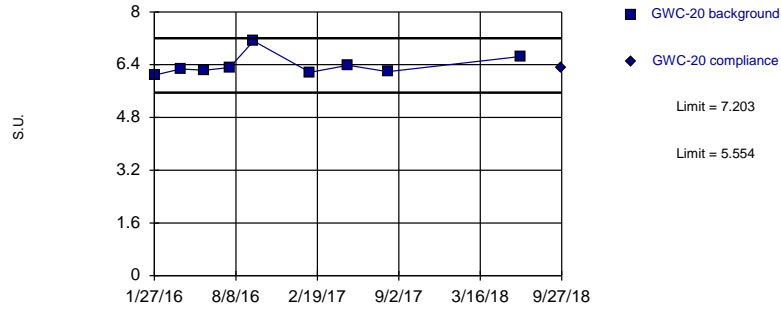


Background Data Summary: Mean=5.99, Std. Dev.=0.1385, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9231, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

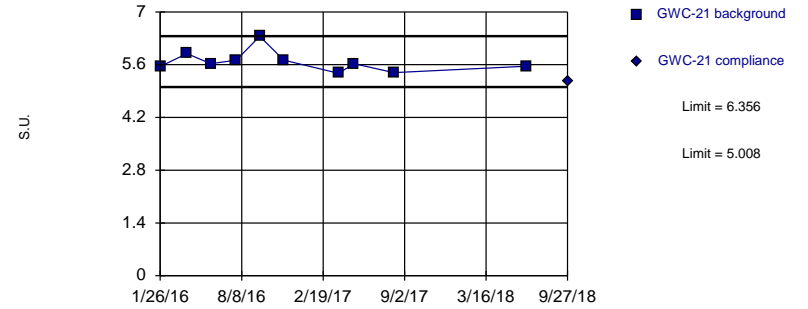


Background Data Summary: Mean=6.378, Std. Dev.=0.3223, n=9. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7977, critical = 0.764. Kappa = 2.559 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

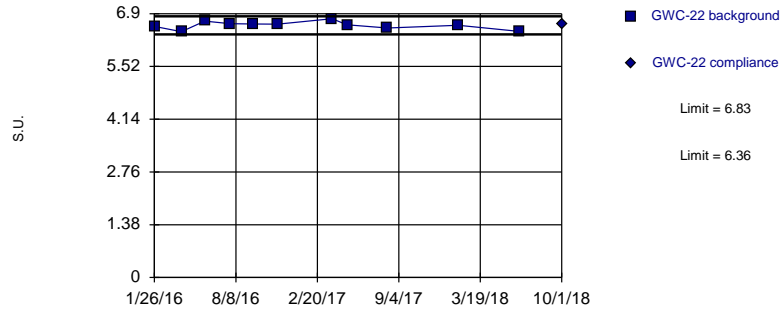


Background Data Summary: Mean=5.682, Std. Dev.=0.2825, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8569, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

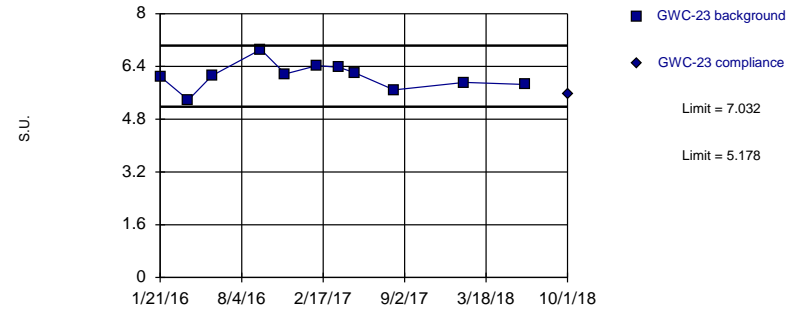


Background Data Summary: Mean=6.595, Std. Dev.=0.1026, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9522, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric



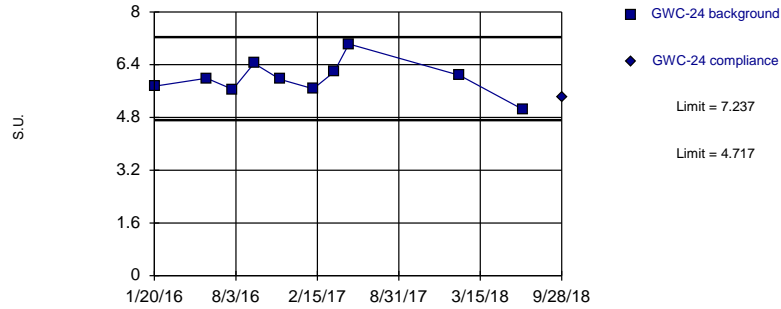
Background Data Summary: Mean=6.105, Std. Dev.=0.4049, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9792, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Within Limits

pH  
Intrawell Parametric

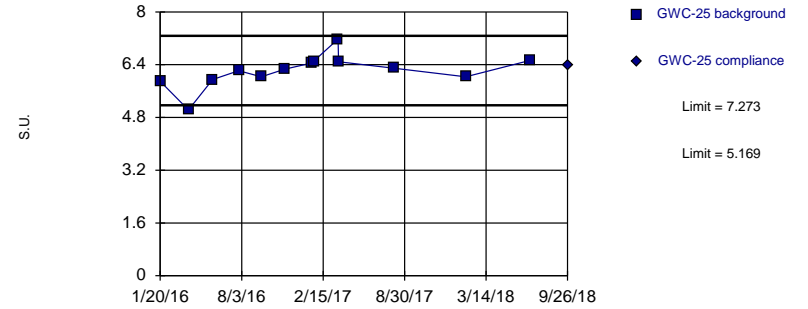


Background Data Summary: Mean=5.977, Std. Dev.=0.528, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9624, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

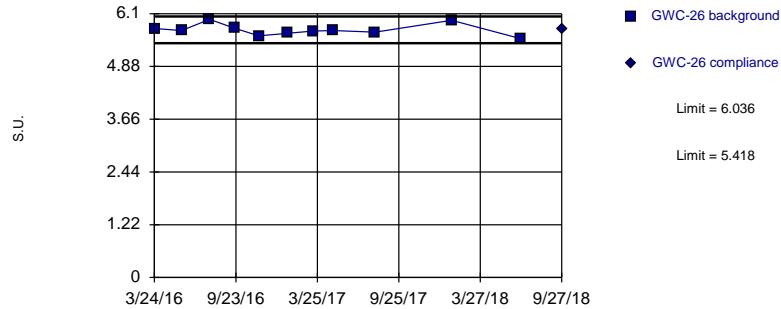


Background Data Summary: Mean=6.221, Std. Dev.=0.4914, n=13. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9112, critical = 0.814. Kappa = 2.141 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

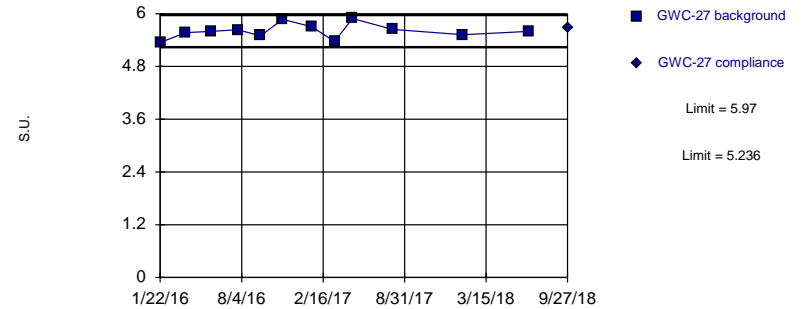


Background Data Summary: Mean=5.727, Std. Dev.=0.1349, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9226, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

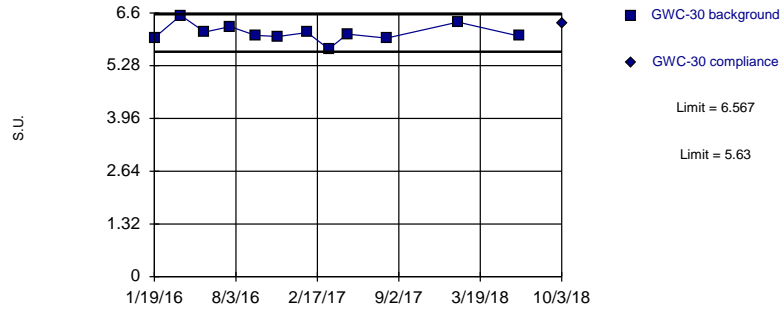


Background Data Summary: Mean=5.603, Std. Dev.=0.1673, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9447, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

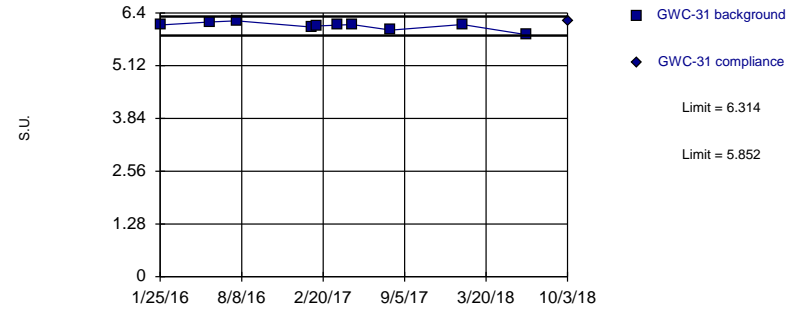


Background Data Summary: Mean=6.098, Std. Dev.=0.2136, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9331, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

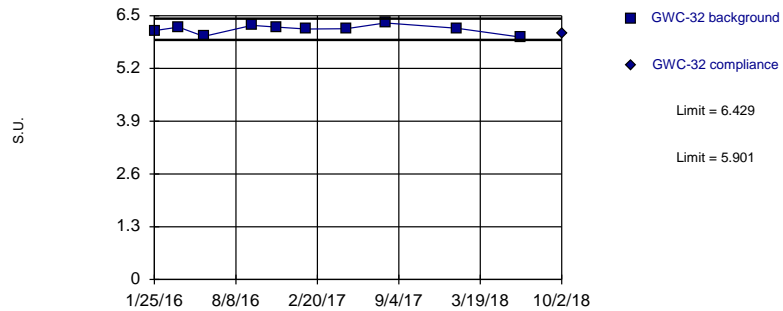


Background Data Summary: Mean=6.083, Std. Dev.=0.09681, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9014, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

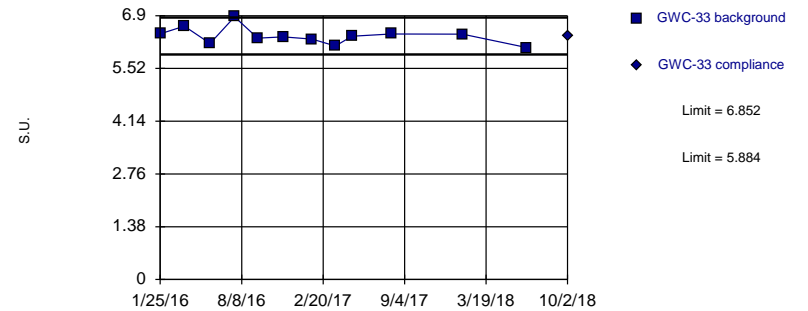


Background Data Summary: Mean=6.165, Std. Dev.=0.1105, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9063, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

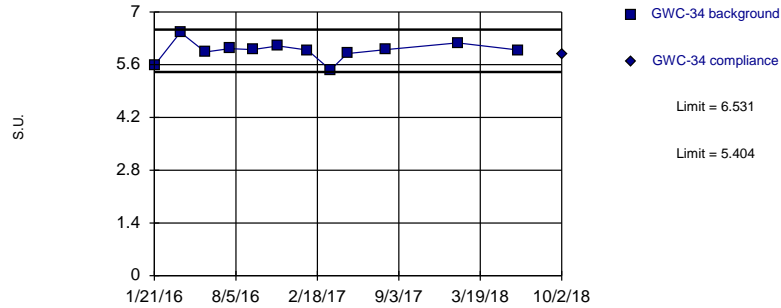


Background Data Summary: Mean=6.368, Std. Dev.=0.2207, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9265, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

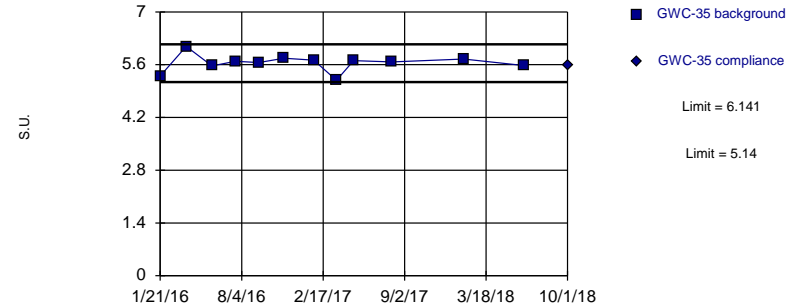


Background Data Summary: Mean=5.968, Std. Dev.=0.2568, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9051, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

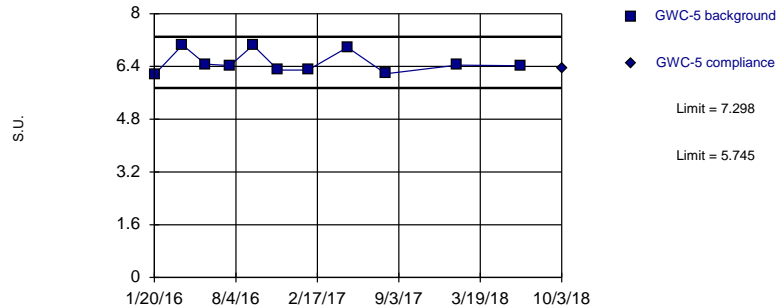


Background Data Summary: Mean=5.64, Std. Dev.=0.2284, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9034, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:04 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

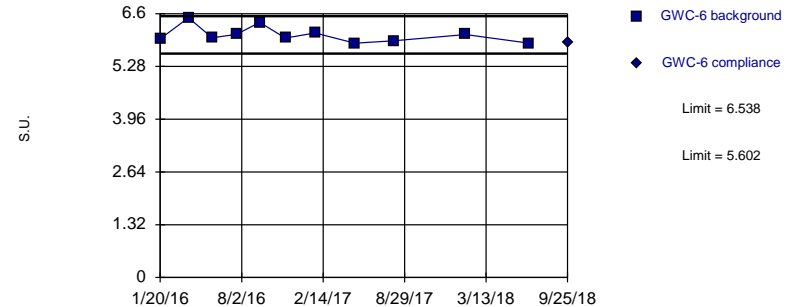


Background Data Summary: Mean=6.522, Std. Dev.=0.3394, n=11. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.822, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

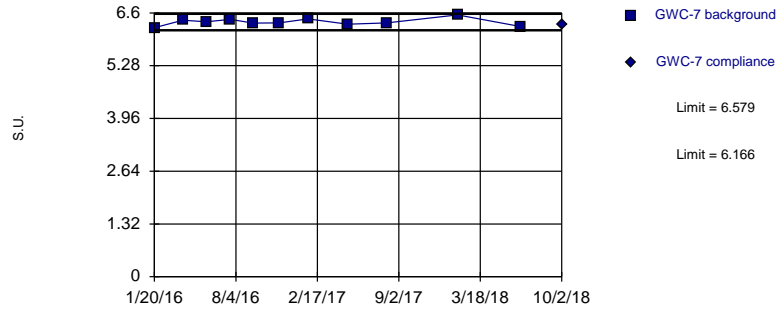


Background Data Summary: Mean=6.07, Std. Dev.=0.2045, n=11. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8599, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

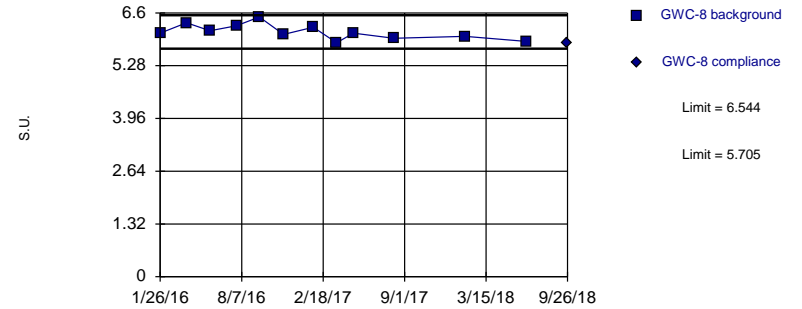


Background Data Summary: Mean=6.372, Std. Dev.=0.0903, n=11. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9715, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

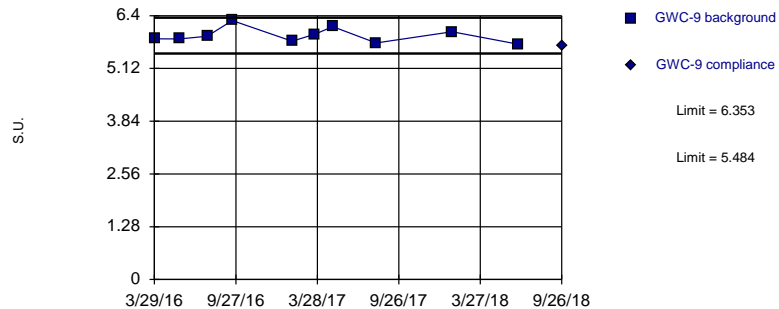


Background Data Summary: Mean=6.125, Std. Dev.=0.1913, n=12. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9721, critical = 0.805. Kappa = 2.193 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

pH  
Intrawell Parametric

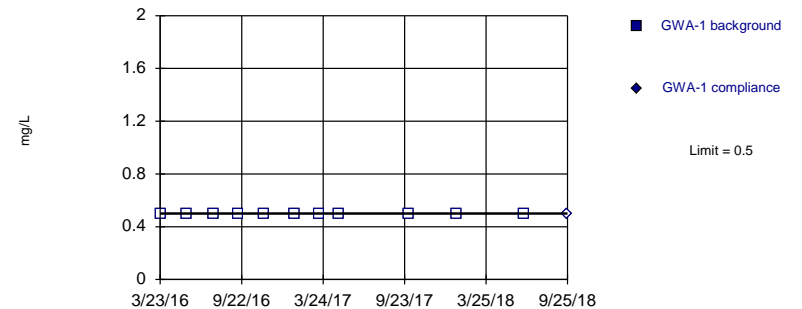


Background Data Summary: Mean=5.918, Std. Dev.=0.1821, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9301, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limits

Sulfate  
Intrawell Non-parametric

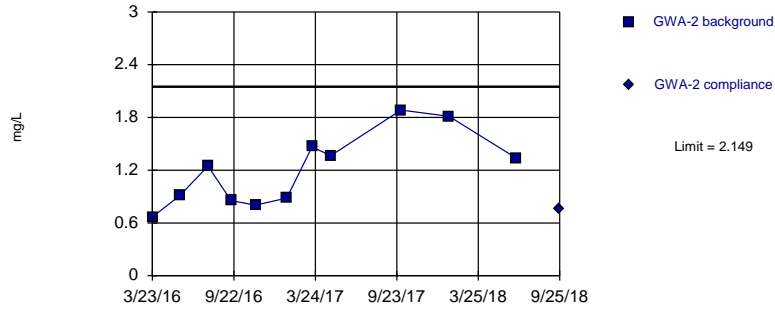


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 100% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

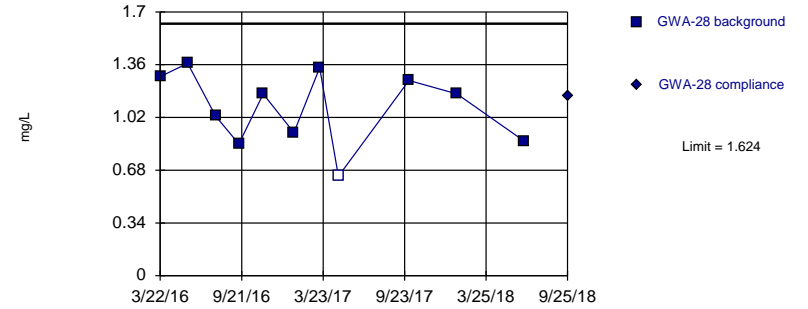


Background Data Summary: Mean=1.203, Std. Dev.=0.4131, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.92, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

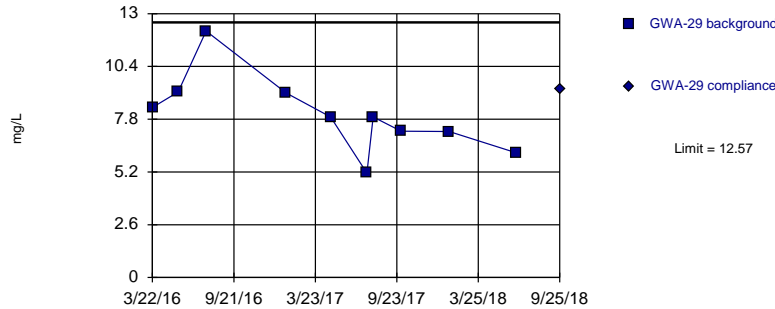


Background Data Summary: Mean=1.082, Std. Dev.=0.2367, n=11, 9.091% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

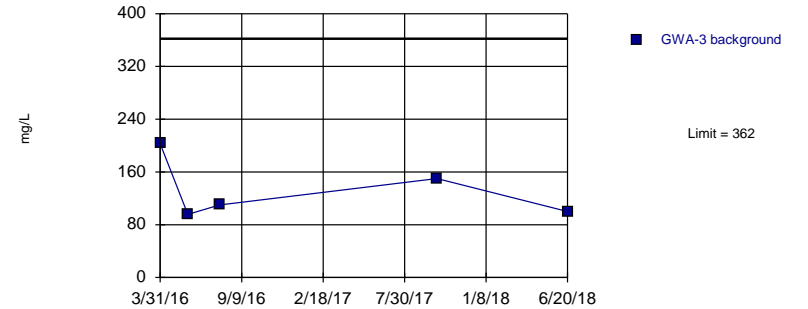


Background Data Summary: Mean=8.026, Std. Dev.=1.906, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9433, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric, GWA-3 (bg)

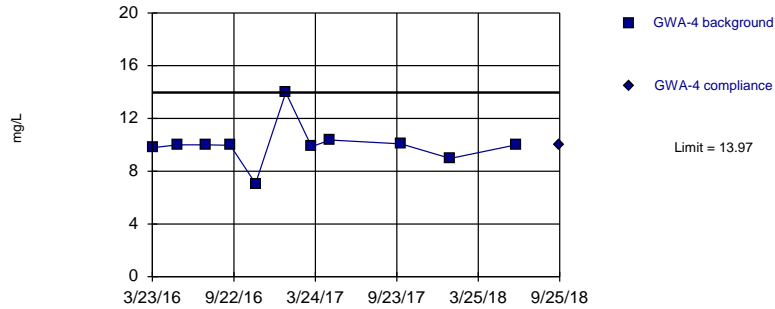


Background Data Summary: Mean=131.7, Std. Dev.=45.24, n=5. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8488, critical = 0.686. Kappa = 5.09 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595. Assumes 1 future value.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

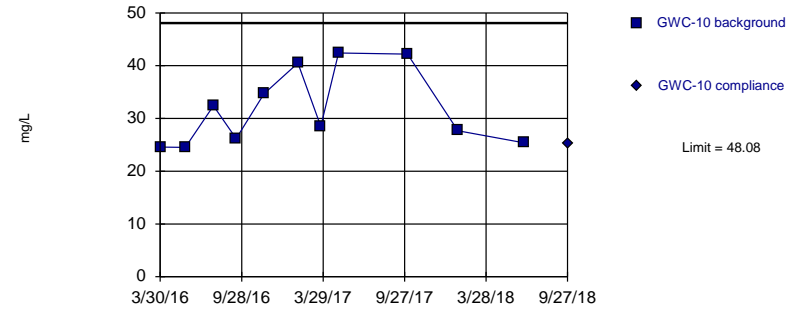


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

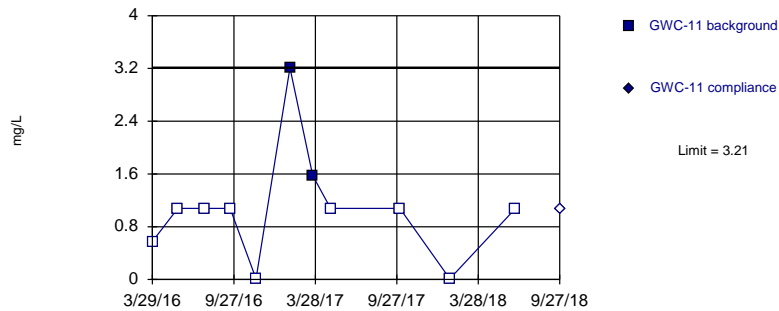


Background Data Summary: Mean=31.73, Std. Dev.=7.144, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8493, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

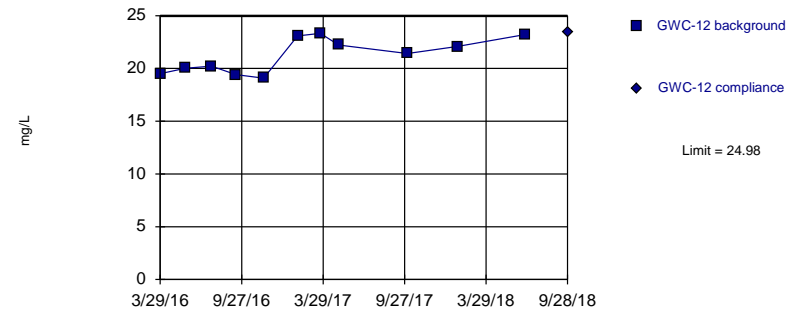


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

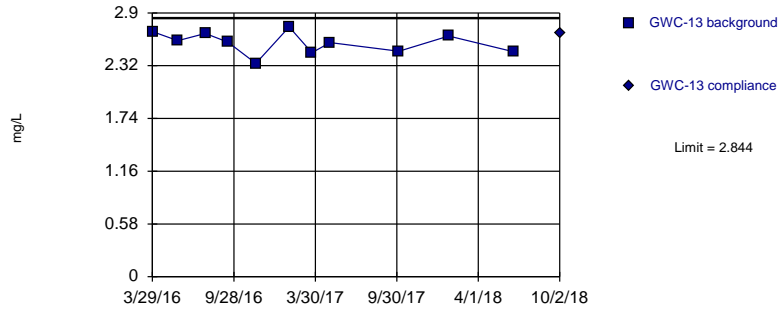


Background Data Summary: Mean=21.23, Std. Dev.=1.638, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.889, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

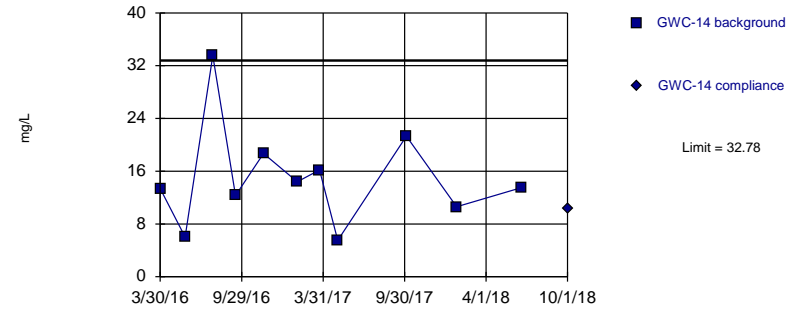


Background Data Summary: Mean=2.57, Std. Dev.=0.1195, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9645, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

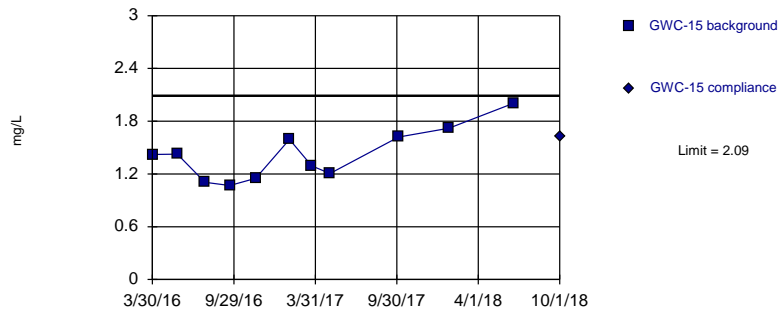


Background Data Summary: Mean=15.04, Std. Dev.=7.747, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8971, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

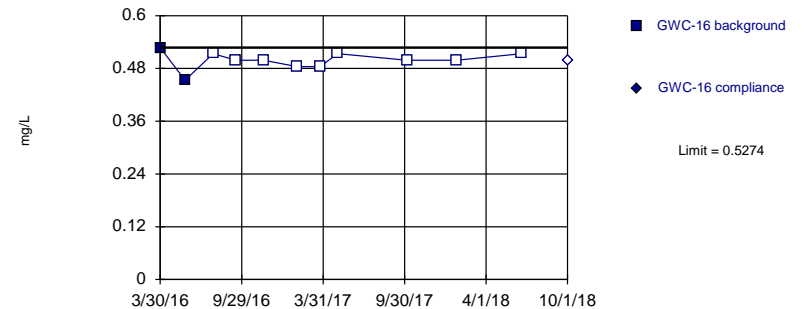


Background Data Summary: Mean=1.419, Std. Dev.=0.2932, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.94, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

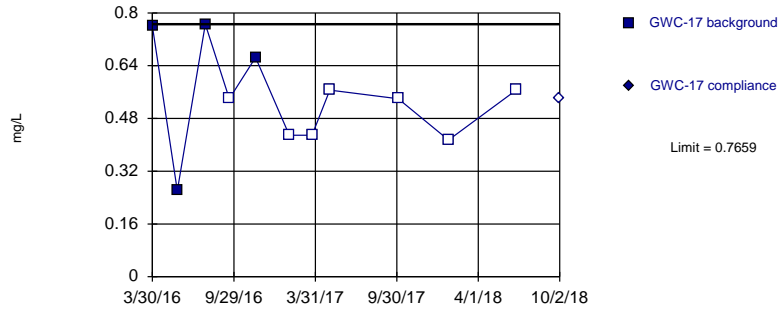


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

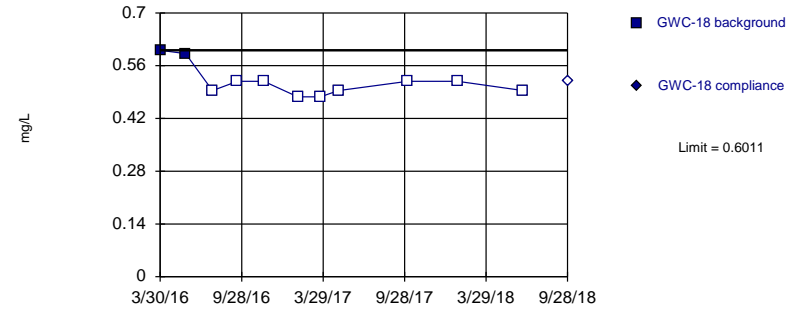


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 63.64% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

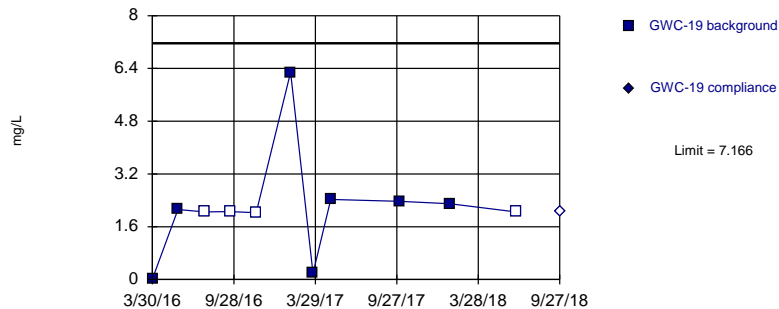


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

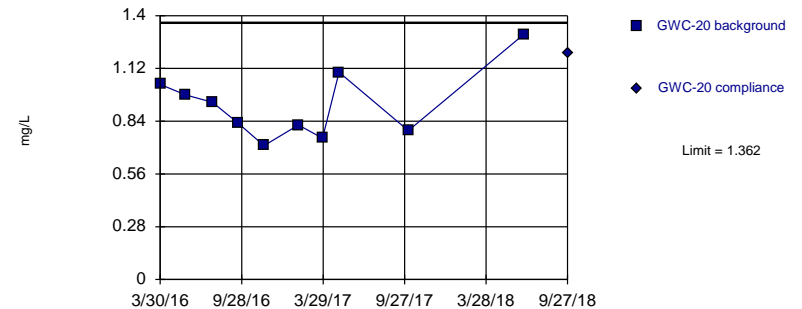


Background Data Summary (based on square root transformation): Mean=1.122, Std. Dev.=0.6793, n=11, 36.36% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7981, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric



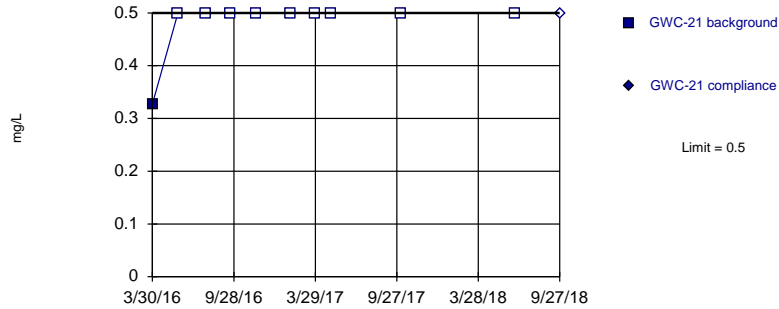
Background Data Summary: Mean=0.9255, Std. Dev.=0.1831, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9317, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Within Limit

Sulfate  
Intrawell Non-parametric

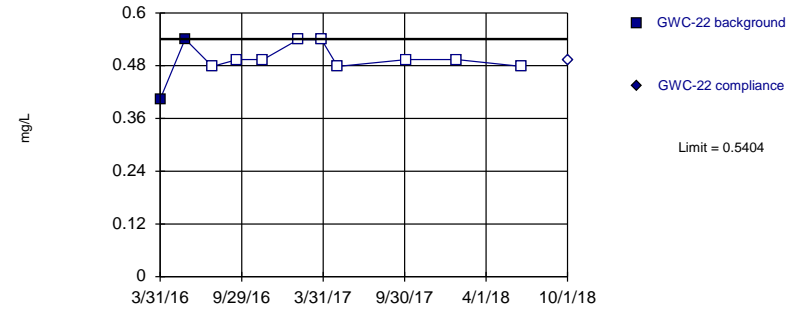


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 90% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3). Insufficient data to test for seasonality or deseasonalize.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

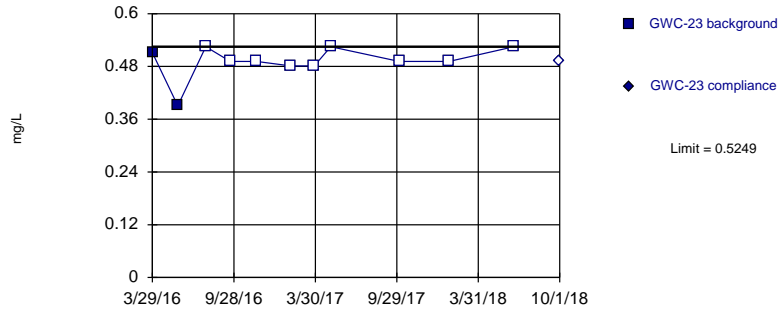


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

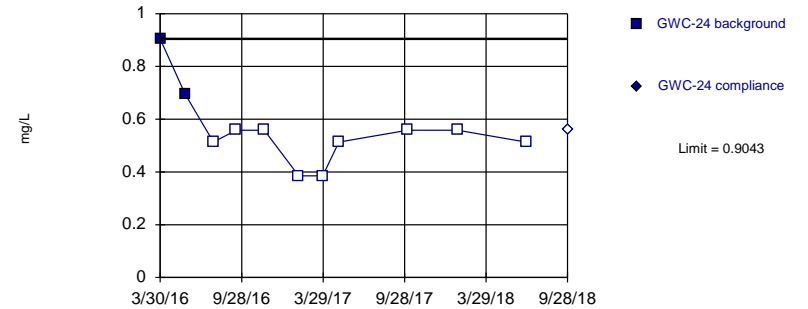


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

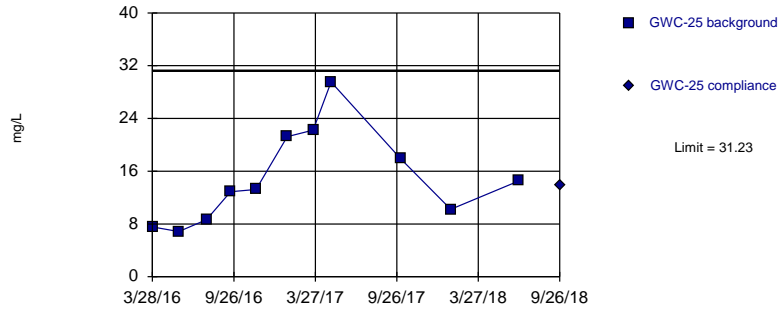


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

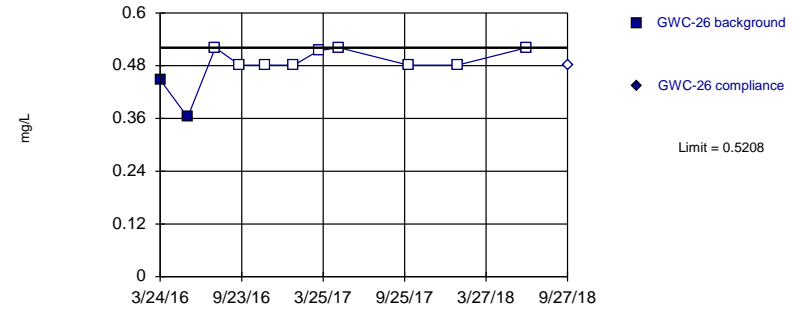


Background Data Summary: Mean=14.98, Std. Dev.=7.098, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9287, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Non-parametric

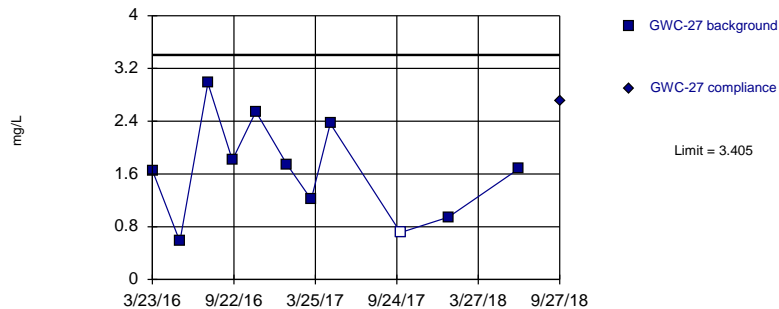


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3). Data were deseasonalized.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

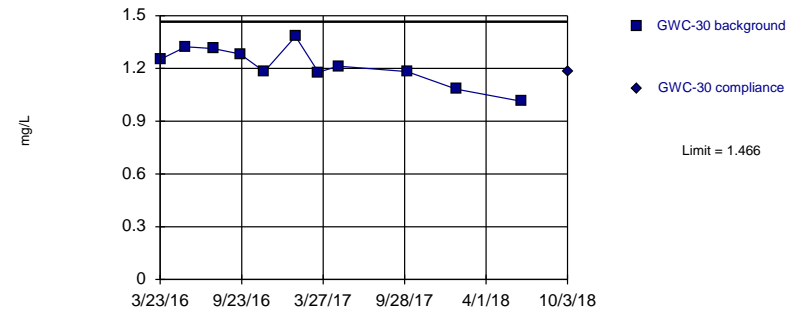


Background Data Summary: Mean=1.657, Std. Dev.=0.7637, n=11, 9.091% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9595, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

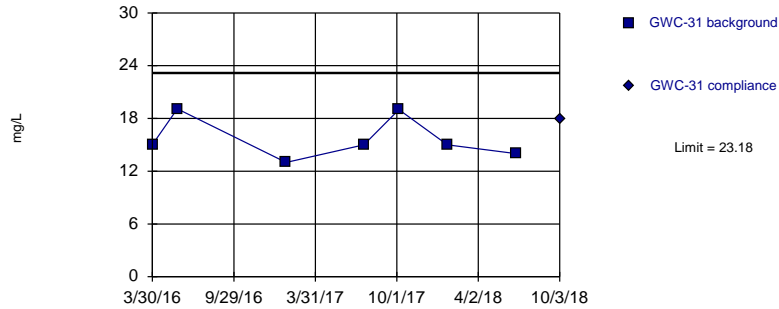


Background Data Summary: Mean=1.218, Std. Dev.=0.1081, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9662, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

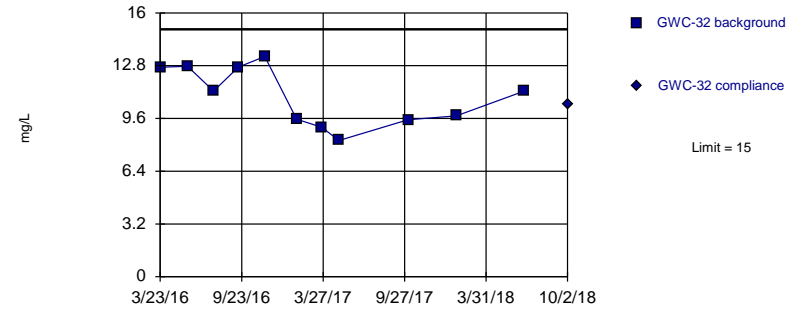


Background Data Summary: Mean=15.73, Std. Dev.=2.383, n=7. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8303, critical = 0.73. Kappa = 3.125 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

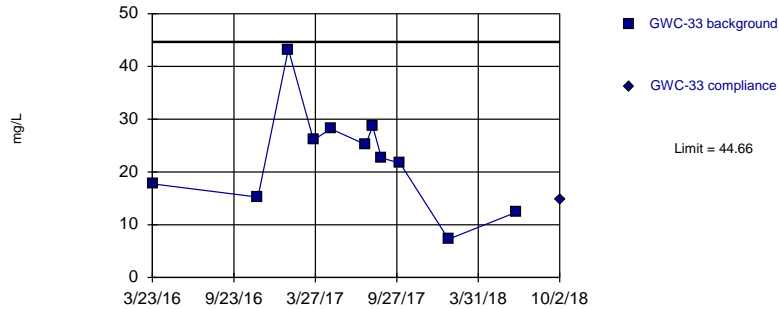


Background Data Summary: Mean=10.93, Std. Dev.=1.78, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9055, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

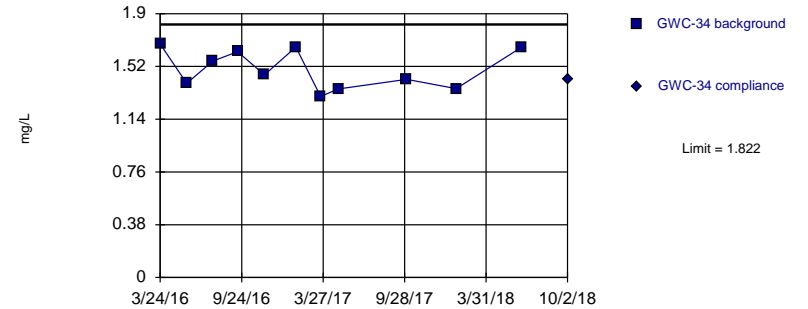


Background Data Summary: Mean=22.57, Std. Dev.=9.651, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9609, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

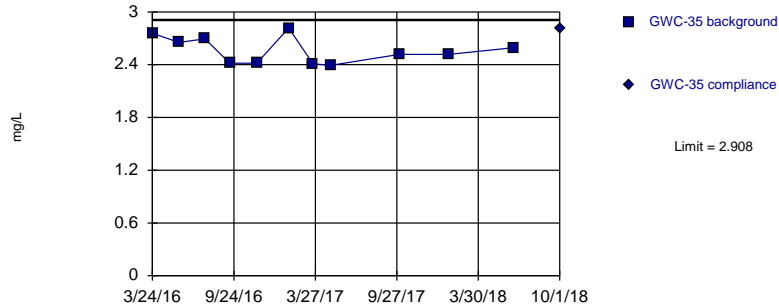


Background Data Summary: Mean=1.499, Std. Dev.=0.141, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8921, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

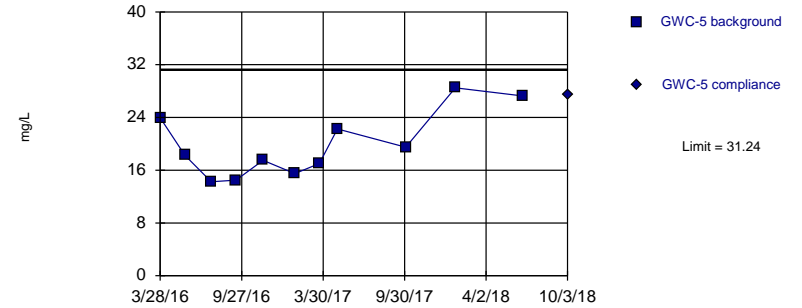


Background Data Summary: Mean=2.563, Std. Dev.=0.1509, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9058, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

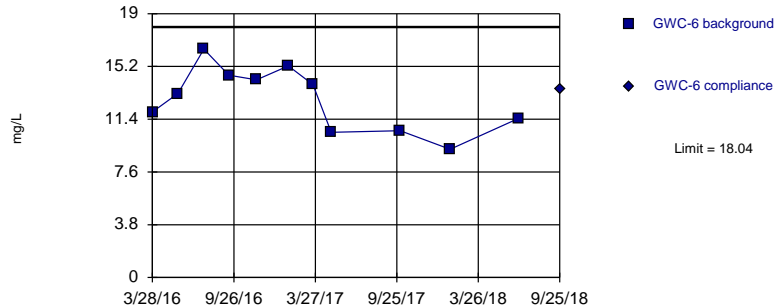


Background Data Summary: Mean=19.86, Std. Dev.=4.974, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

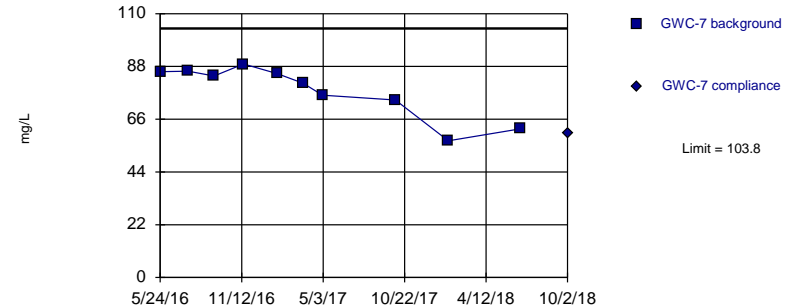


Background Data Summary: Mean=12.84, Std. Dev.=2.272, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9674, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

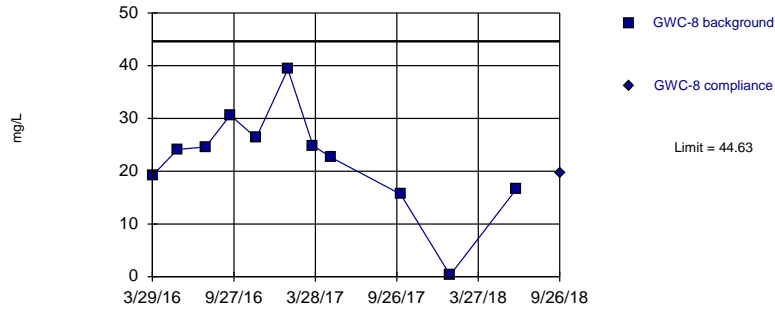


Background Data Summary: Mean=77.98, Std. Dev.=10.84, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8522, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

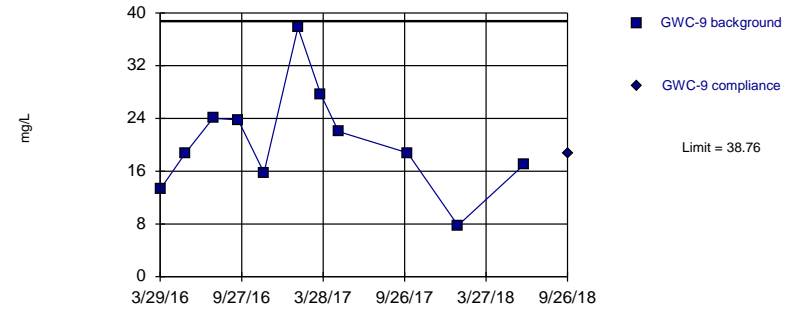


Background Data Summary: Mean=22.2, Std. Dev.=9.8, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9349, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Sulfate  
Intrawell Parametric

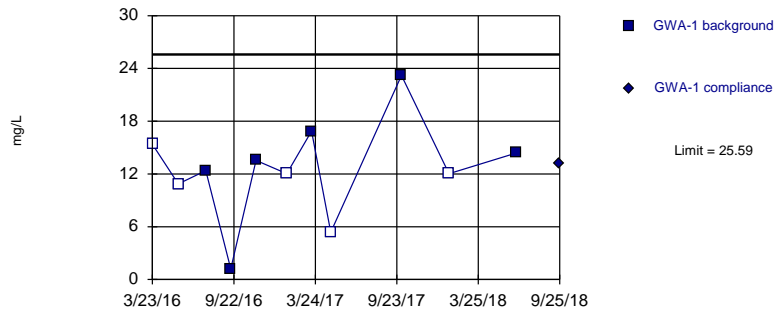


Background Data Summary: Mean=20.59, Std. Dev.=7.935, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9633, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

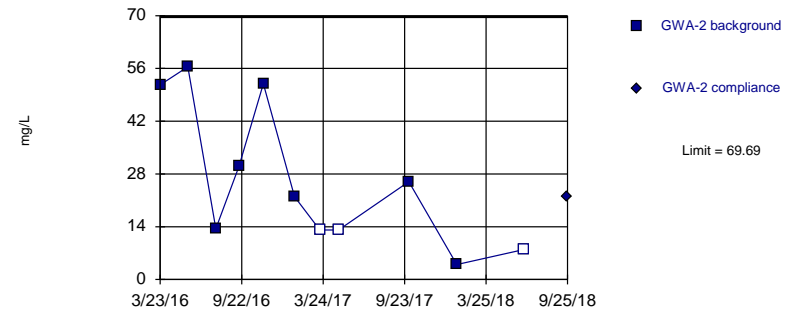


Background Data Summary: Mean=12.48, Std. Dev.=5.727, n=11, 45.45% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9432, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

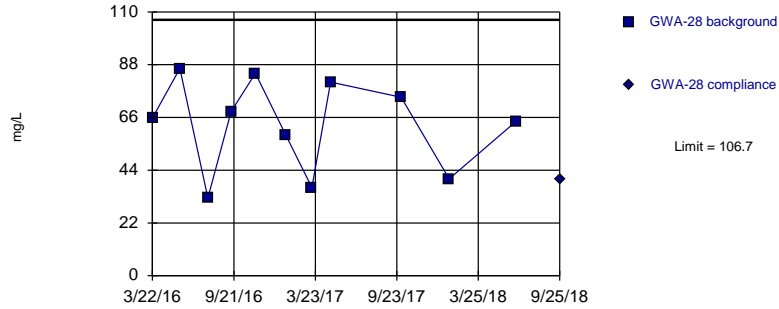


Background Data Summary: Mean=26.32, Std. Dev.=18.95, n=11, 27.27% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8727, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

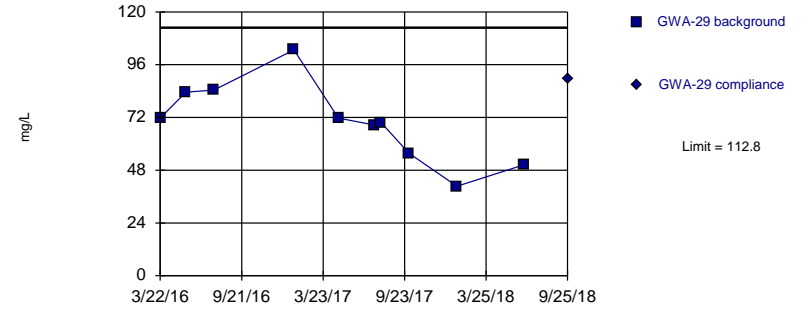


Background Data Summary: Mean=62.96, Std. Dev.=19.1, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9138, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

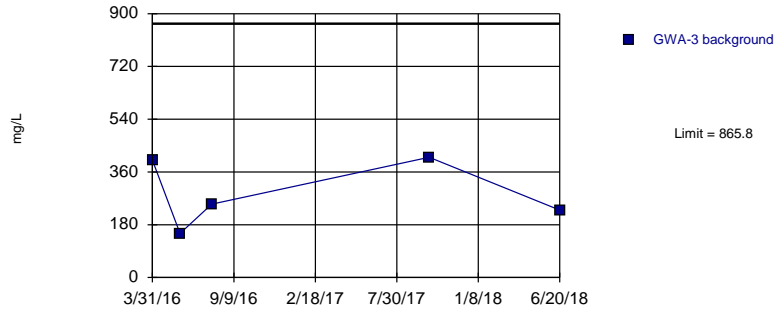
**Total Dissolved Solids**  
Intrawell Parametric



Background Data Summary: Mean=69.93, Std. Dev.=17.99, n=10. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9714, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

**Total Dissolved Solids**  
Intrawell Parametric, GWA-3 (bg)

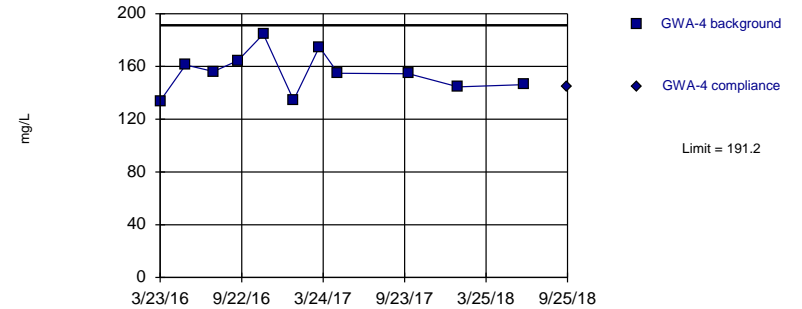


Background Data Summary: Mean=288.2, Std. Dev.=113.5, n=5. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8896, critical = 0.686. Kappa = 5.09 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595. Assumes 1 future value.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

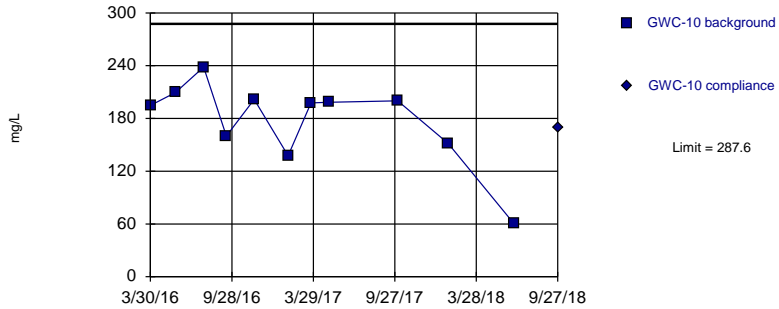


Background Data Summary: Mean=155.4, Std. Dev.=15.65, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9619, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:05 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

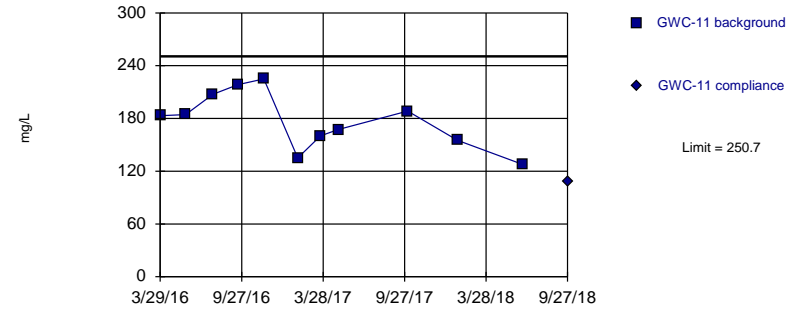


Background Data Summary: Mean=177.3, Std. Dev.=48.19, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.853, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

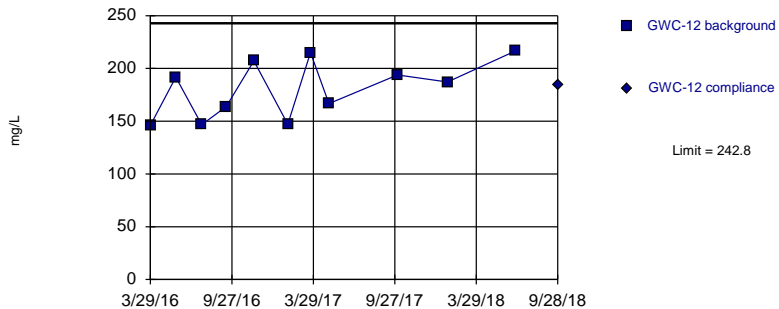


Background Data Summary: Mean=177.4, Std. Dev.=32, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9637, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

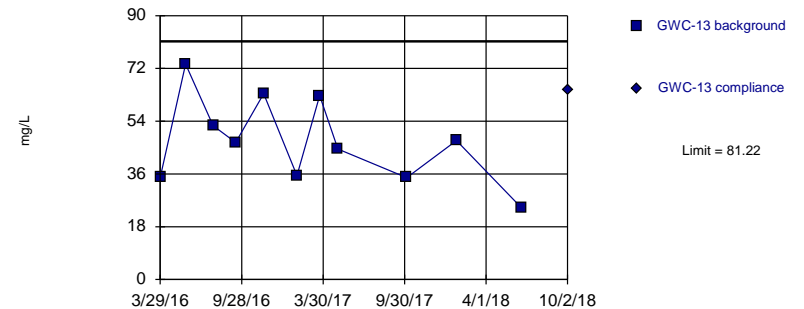


Background Data Summary: Mean=180.2, Std. Dev.=27.33, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8965, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

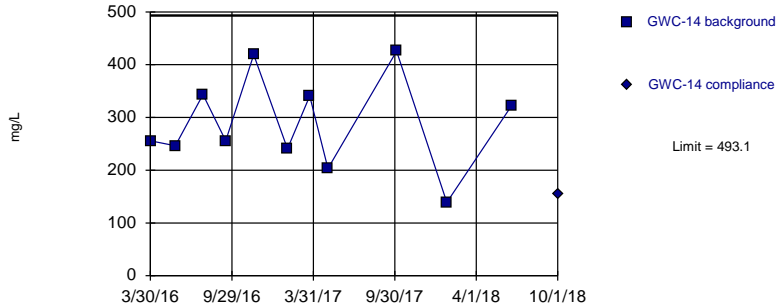


Background Data Summary: Mean=47.3, Std. Dev.=14.82, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9602, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

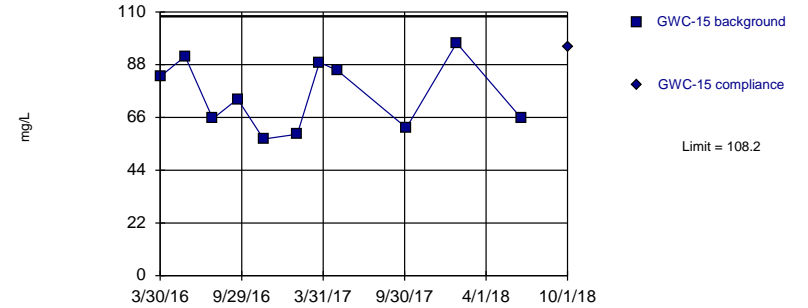


Background Data Summary: Mean=290.2, Std. Dev.=88.65, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9515, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

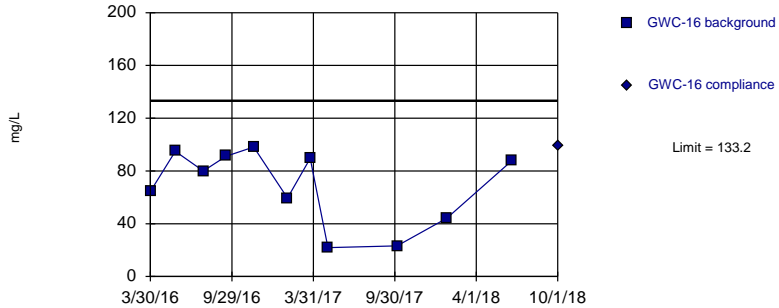


Background Data Summary: Mean=75.3, Std. Dev.=14.37, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9131, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

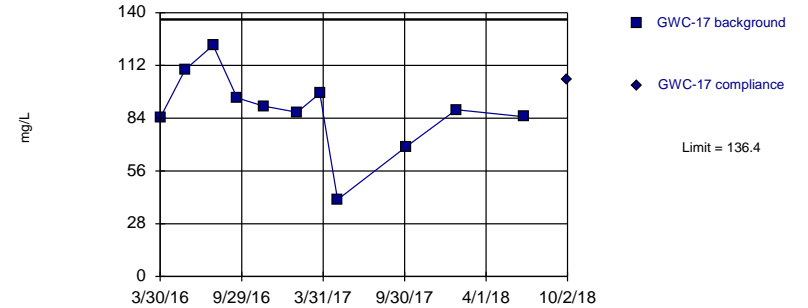


Background Data Summary: Mean=68.62, Std. Dev.=28.2, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8667, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric



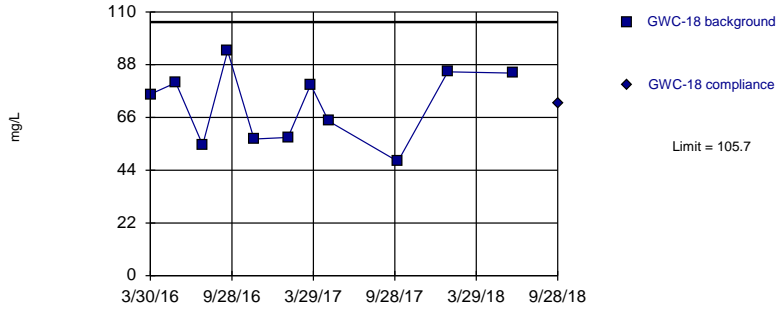
Background Data Summary: Mean=88.11, Std. Dev.=21.08, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9247, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill



Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

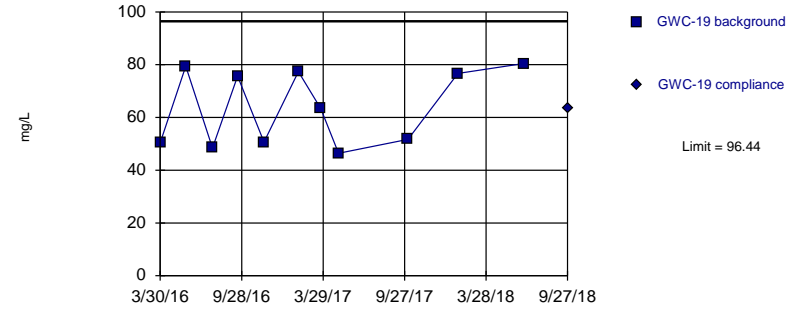


Background Data Summary: Mean=70.94, Std. Dev.=15.2, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9316, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

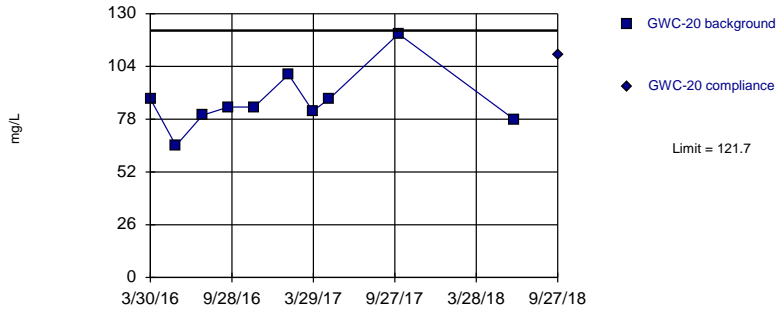


Background Data Summary: Mean=63.67, Std. Dev.=14.32, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8125, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

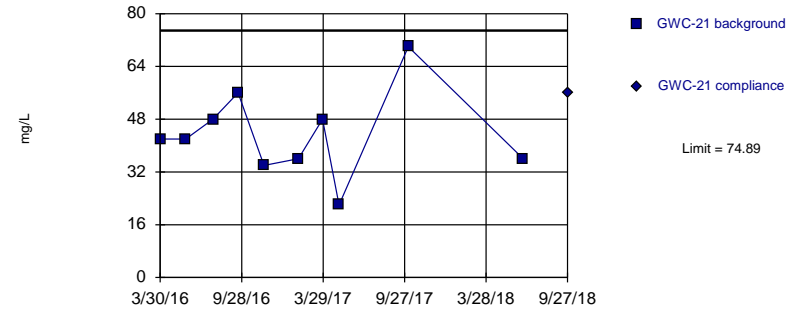


Background Data Summary: Mean=86.9, Std. Dev.=14.59, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8877, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

**Total Dissolved Solids**  
Intrawell Parametric

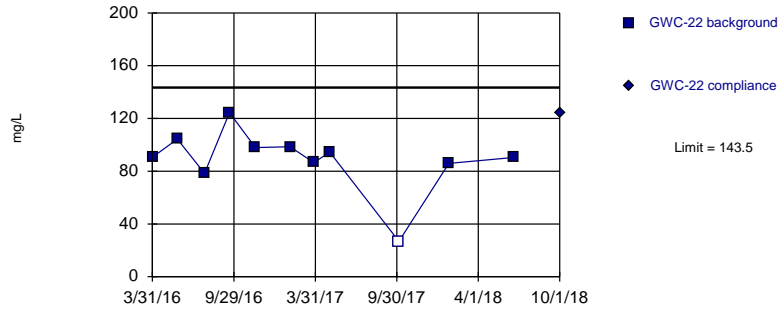


Background Data Summary: Mean=43.4, Std. Dev.=13.2, n=10. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9611, critical = 0.781. Kappa = 2.386 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

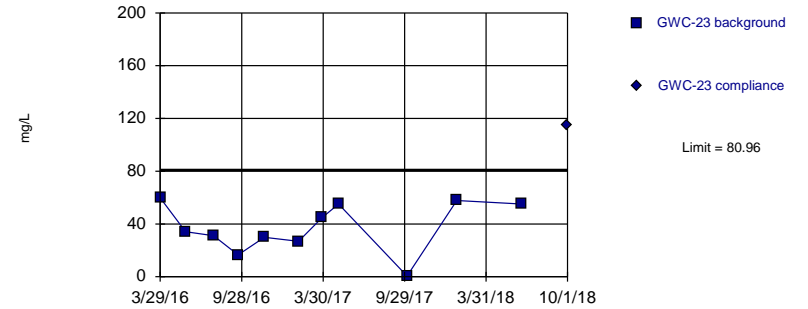


Background Data Summary: Mean=88.92, Std. Dev.=23.83, n=11, 9.091% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.814, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Exceeds Limit

Total Dissolved Solids  
Intrawell Parametric

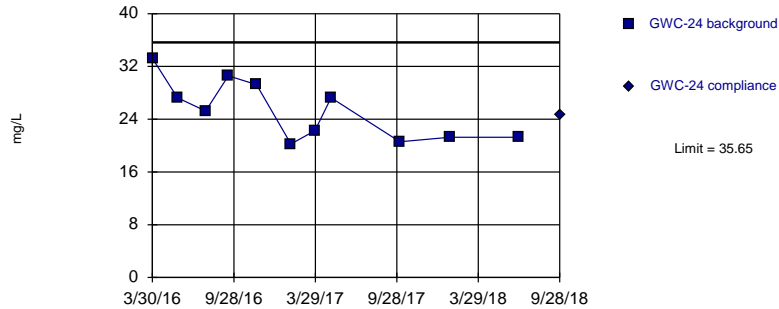


Background Data Summary: Mean=37.41, Std. Dev.=19.03, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9256, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

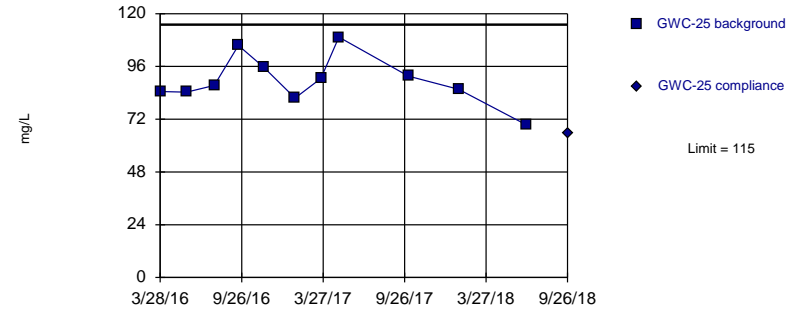


Background Data Summary: Mean=25.31, Std. Dev.=4.519, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9071, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

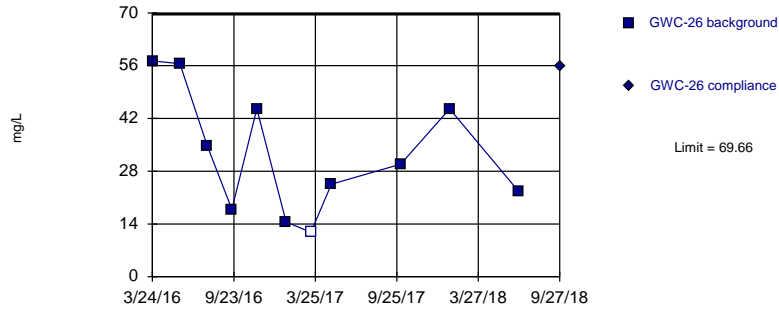


Background Data Summary: Mean=89.58, Std. Dev.=11.11, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

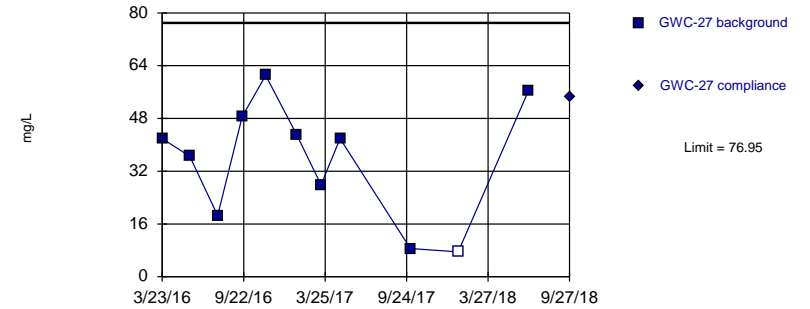


Background Data Summary: Mean=32.6, Std. Dev.=16.19, n=11, 9.091% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9262, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

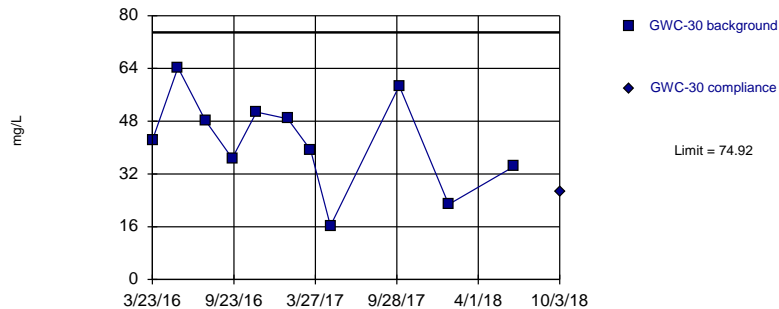


Background Data Summary: Mean=35.63, Std. Dev.=18.05, n=11, 9.091% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.935, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

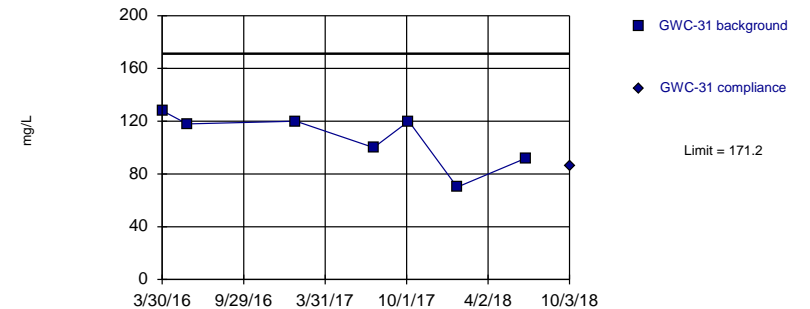


Background Data Summary: Mean=42.02, Std. Dev.=14.37, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9754, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

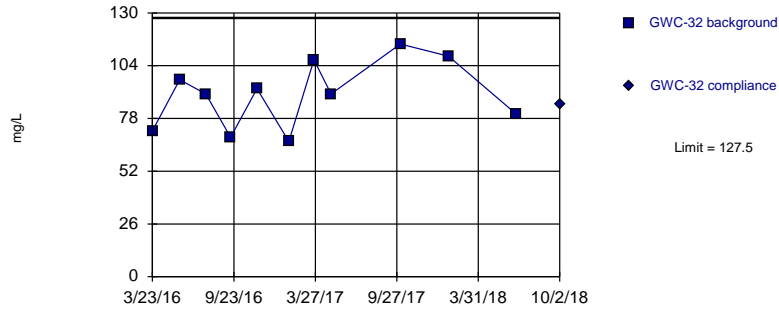


Background Data Summary: Mean=106.9, Std. Dev.=20.59, n=7. Insufficient data to test for seasonality or deseasonalize. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8851, critical = 0.73. Kappa = 3.125 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

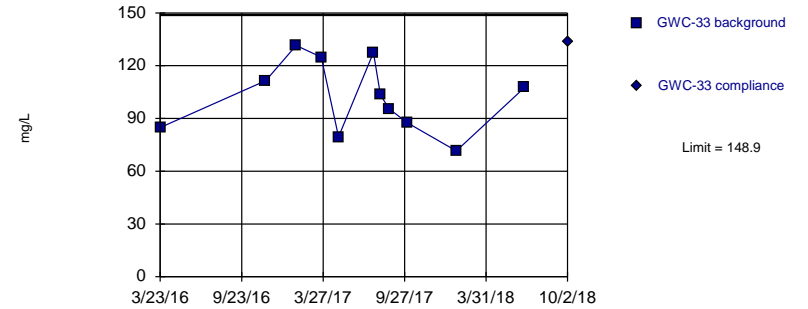


Background Data Summary: Mean=89.76, Std. Dev.=16.51, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.942, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

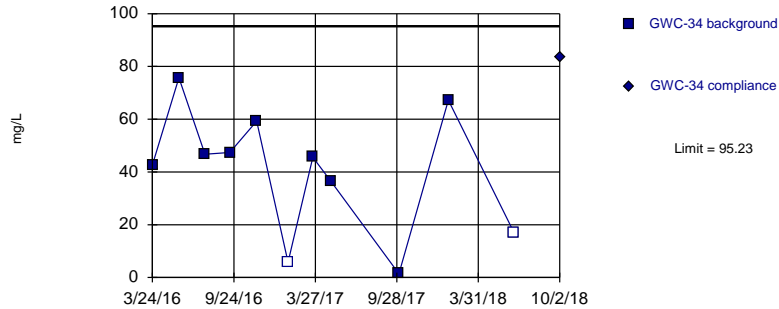


Background Data Summary: Mean=102.2, Std. Dev.=20.38, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9511, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

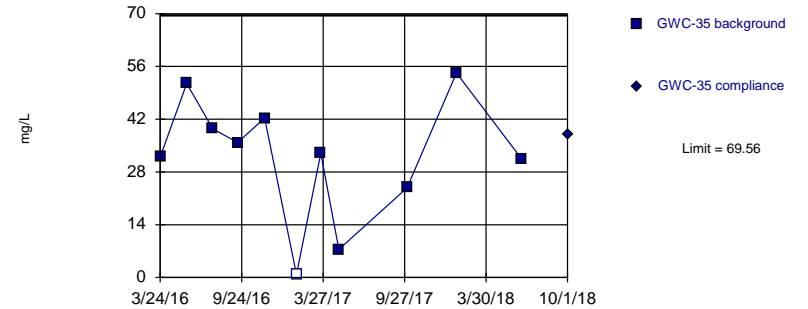


Background Data Summary: Mean=40.51, Std. Dev.=23.91, n=11, 18.18% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9405, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

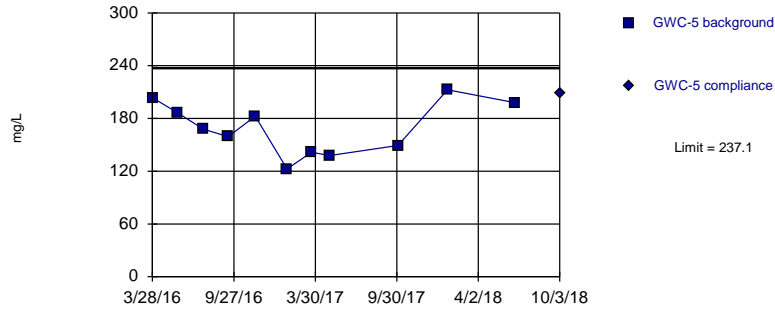


Background Data Summary: Mean=31.97, Std. Dev.=16.42, n=11, 9.091% NDs. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9325, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

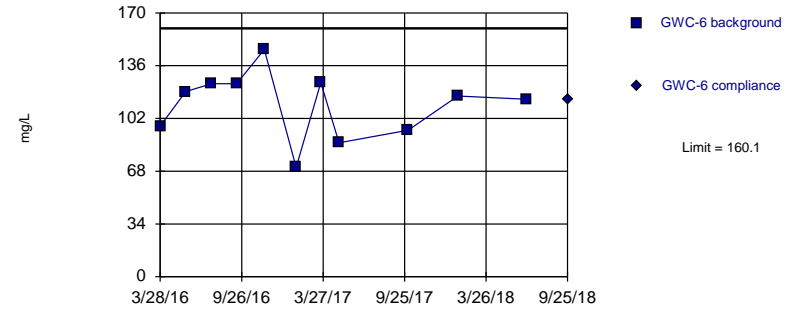


Background Data Summary: Mean=169.3, Std. Dev.=29.65, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9607, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

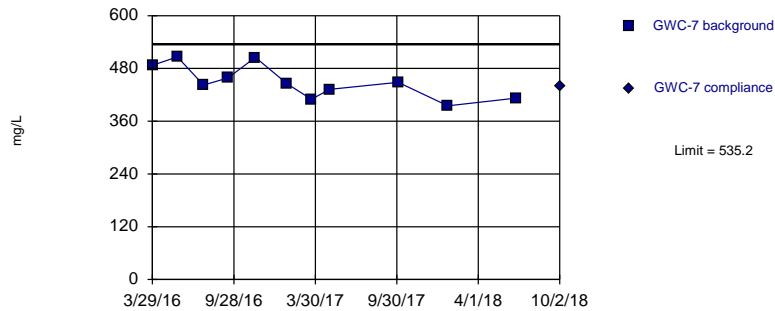


Background Data Summary: Mean=110.8, Std. Dev.=21.55, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9504, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

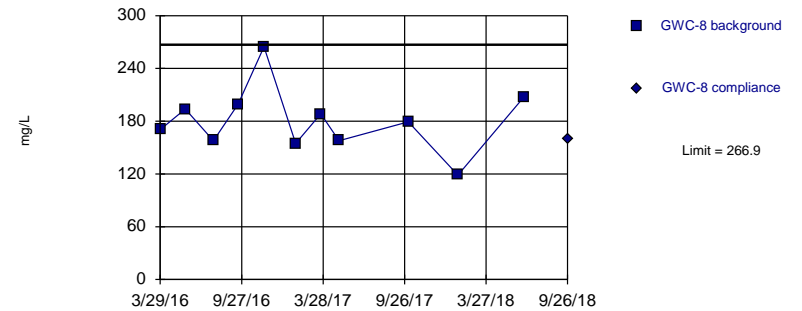


Background Data Summary: Mean=449.3, Std. Dev.=37.52, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9376, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

Total Dissolved Solids  
Intrawell Parametric

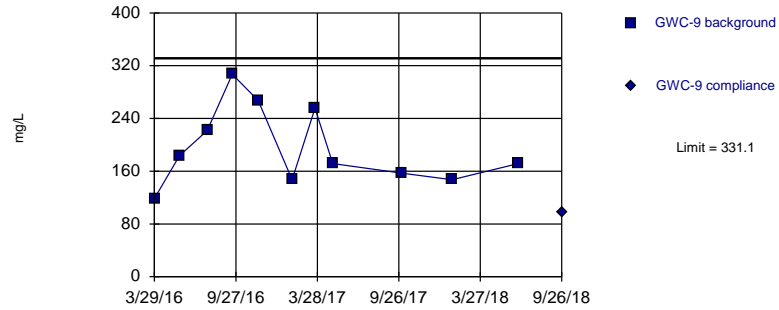


Background Data Summary: Mean=181.2, Std. Dev.=37.47, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9446, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

Within Limit

### Total Dissolved Solids Intrawell Parametric



Background Data Summary: Mean=195.3, Std. Dev.=59.36, n=11. Data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.792. Kappa = 2.289 (c=7, w=29, 1 of 3, event alpha = 0.05132). Report alpha = 0.0002595.

Prediction Limit Analysis Run 1/24/2019 8:06 AM  
Plant Wansley Client: Southern Company Data: Wansley Landfill

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-1	GWA-1	GWA-2	GWA-2	GWA-28	GWA-28	GWA-29	GWA-29
1/19/2016							5.92	
1/20/2016			5.47					
1/21/2016	5.03							
1/22/2016					6.27			
3/22/2016					6.72		5.92	
3/23/2016	5.56		5.85					
5/19/2016							5.95	
5/20/2016	5.62							
5/23/2016					6.29			
5/24/2016			5.86					
7/21/2016	5.500376						6.049508	
7/25/2016					6.178217			
7/26/2016			5.808275					
9/15/2016	5.31						6.444541	
9/16/2016					6.545359			
11/9/2016					6			
11/10/2016			5.63					
11/11/2016	5.4							
1/17/2017					6.09			
1/19/2017	5.73		5.63					
3/15/2017							5.86	
3/16/2017	5.25				5.98			
3/17/2017			5.68					
4/27/2017					5.96		5.85	
4/28/2017	5.35		5.77					
8/1/2017					6.01 (D)		5.86 (D)	
8/2/2017			5.67 (D)					
8/3/2017	5.32 (D)							
1/19/2018	5.39 (D)		5.68 (D)		6.15 (D)		5.83 (D)	
6/19/2018	5.27		5.84		5.96		5.77	
9/25/2018		5.27		5.52		5.94		5.92

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-3	GWA-4	GWA-4	GWC-10	GWC-10	GWC-11	GWC-11
1/25/2016				6.27			
1/26/2016						6.11	
3/29/2016						6.59	
5/19/2016		6.45					
5/25/2016	6.48			6.44		6.31	
7/21/2016		6.449699					
7/25/2016						6.287783	
7/27/2016	6.43219			6.364588			
9/14/2016		6.396439					
9/16/2016				6.202937			
9/19/2016						6.027665	
11/10/2016		6.19					
11/16/2016						6.04	
11/17/2016				5.95			
1/17/2017		6.18					
1/31/2017				6.47		5.94	
3/16/2017		6.1					
3/23/2017						6.06	
4/28/2017		6.51					
5/2/2017				6.69		5.95	
8/1/2017	6.35 (D)						
8/2/2017		6.23 (D)					
8/7/2017						6.11 (D)	
8/8/2017				6.67 (D)			
1/22/2018		6.3 (D)					
1/24/2018				6.47 (D)		6.17 (D)	
6/19/2018		6.2					
6/20/2018	6.28					5.92	
6/21/2018				5.76			
9/25/2018			6.21				
9/27/2018					5.5		5.97



# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-12	GWC-12	GWC-13	GWC-13	GWC-14	GWC-14	GWC-15	GWC-15
1/26/2016	7.37							
1/27/2016			6.52		5.88		6.67	
3/29/2016	7.53		7.49					
3/30/2016					6.01		6.7	
5/25/2016	7.44		6.76		5.52		6.52	
7/26/2016			6.859244		6.066915		6.719922	
9/15/2016	6.283325		7.565879		5.220961			
9/20/2016							6.519229	
11/16/2016	6.99							
11/17/2016			6.63		5.05		6.54	
1/31/2017	7.065 (D)							
2/1/2017					5.5		6.56	
3/23/2017	7.41		6.85		5.41			
5/3/2017	7.32		6.57		5.71		6.5	
8/4/2017			6.77 (D)				6.55 (D)	
8/7/2017	7.25 (D)				5.03 (D)			
1/24/2018	7.02 (D)							
1/25/2018			6.63 (D)		5.64 (D)		6.45 (D)	
6/20/2018			6.66		5.05		7.24	
6/26/2018	7.43							
9/28/2018		7.3						
10/1/2018						5.59		6.5
10/2/2018				6.91				

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-16	GWC-16	GWC-17	GWC-17	GWC-18	GWC-18	GWC-19	GWC-19
1/27/2016	6.03		6.27				6.14	
3/30/2016			6.22		6.03		6.1	
5/25/2016	6.22		6.24					
5/26/2016					6.03		5.99	
7/25/2016					6.066342		6.063209	
7/27/2016	6.30178		6.321385					
9/19/2016					6.040669		6.276656	
11/17/2016	5.9		6.11				5.97	
2/1/2017	6.14		6.18		5.98			
3/24/2017	5.99		6.34		5.85		5.82	
5/3/2017	6.06		6.09		5.92		5.89	
8/7/2017	6.12 (D)		6.16 (D)		5.98 (D)		5.93 (D)	
1/25/2018	6.1 (D)		6.2 (D)		6.03 (D)		5.89 (D)	
6/20/2018	6.08							
6/21/2018					5.87		5.78	
6/26/2018			6.1					
9/27/2018								5.82
9/28/2018						5.77		
10/1/2018		6.12						
10/2/2018				6.16				

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-20	GWC-20	GWC-21	GWC-21	GWC-22	GWC-22	GWC-23	GWC-23
1/21/2016							6.24	
1/26/2016			5.39		6.46			
1/27/2016	6.08							
3/29/2016							4.87	
3/30/2016	6.27		5.88					
3/31/2016					6.53			
5/25/2016							6.11	
5/26/2016	6.23		5.55		6.69			
7/25/2016	6.3145							
7/26/2016			5.64011		6.620398			
9/20/2016	7.120962		6.575025		6.696588		7.295281	
11/17/2016			5.56		6.52			
11/18/2016							6.32	
2/2/2017	6.17							
2/3/2017							5.91	
3/28/2017			5.36		6.87		5.86	
5/3/2017					6.59			
5/4/2017	6.38		5.55				6.2	
8/7/2017	6.19 (D)		5.61 (D)					
8/8/2017					6.59 (D)		6.07 (D)	
1/25/2018					6.49 (D)		6.06 (D)	
6/20/2018			5.48		6.42		5.84	
6/21/2018	6.65							
9/27/2018		6.29		5.38				
10/1/2018						6.7		5.96

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-24	GWC-24	GWC-25	GWC-25	GWC-26	GWC-26	GWC-27	GWC-27
1/20/2016	5.41		5.98					
1/22/2016							5.35	
3/23/2016							5.57	
3/24/2016					5.64			
3/28/2016			5.1					
5/24/2016					5.78		5.58	
5/25/2016	6.46		5.7					
7/26/2016					6.038068		5.614371	
7/27/2016	6.119047		5.966094					
9/16/2016	6.310241							
9/19/2016			6.070052				5.506855	
9/20/2016					5.701864			
11/11/2016							5.88	
11/14/2016					5.64			
11/15/2016			6.35					
11/18/2016	5.62							
1/19/2017					5.7			
1/20/2017			6.54				5.71	
1/23/2017			6.59					
2/6/2017	5.36							
3/16/2017					5.58		5.37	
3/23/2017			7.25					
3/24/2017			6.56					
3/28/2017	5.87							
4/28/2017							5.89	
5/1/2017					5.78			
5/3/2017	7.5							
8/3/2017			6.33 (D)		5.61 (D)		5.65 (D)	
1/19/2018							5.53 (D)	
1/22/2018					6 (D)			
1/24/2018			6.12 (D)					
1/25/2018	5.74 (D)							
6/27/2018	5.51		6.28		5.59		5.58	
9/26/2018				6.4				
9/27/2018						5.68		5.7
9/28/2018		5.28						

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-30	GWC-30	GWC-31	GWC-31	GWC-32	GWC-32	GWC-33	GWC-33
1/19/2016	5.9							
1/25/2016			5.98		6.13		6.23	
3/23/2016	6.78				6.22		6.7	
5/20/2016	6.05							
5/23/2016					5.99			
5/24/2016							6.26	
5/25/2016			6.3					
7/21/2016	6.188237							
7/22/2016							6.956045	
7/27/2016			6.327805					
9/16/2016					6.260319		6.411956	
9/20/2016	6.075727							
11/14/2016	5.93							
11/15/2016					6.22			
11/16/2016							6.15	
1/24/2017	6.03 (D)		5.93					
1/25/2017					6.17		6.09	
2/6/2017			6.04					
3/17/2017	5.94							
3/22/2017							6.18	
3/28/2017			6.06					
5/1/2017	6		6.24		6.18		6.45	
8/3/2017			5.98 (D)		6.32 (D)		6.52 (D)	
8/4/2017	6.01 (D)							
1/22/2018			5.99 (D)		6.19 (D)		6.22 (D)	
1/24/2018	6.29 (D)							
6/21/2018	5.95							
6/26/2018					5.97		6.15	
6/27/2018			5.99					
10/2/2018						6.06		6.47
10/3/2018		6.38		6.2				

# Prediction Limit

Constituent: pH Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-34	GWC-34	GWC-35	GWC-35	GWC-5	GWC-5	GWC-6	GWC-6
1/20/2016					6.15		5.97	
1/21/2016	5.51		5.19					
3/24/2016	6.66		6.32					
3/28/2016					7.05		6.5	
5/23/2016	5.92				6.47			
5/24/2016							6	
5/25/2016			5.58					
7/21/2016	6.008569		5.701591		6.424029		6.08222	
9/15/2016	5.982305		5.629095		7.042684		6.383623	
11/15/2016	6.03		5.66		6.29			
11/16/2016							5.99	
1/25/2017	5.92							
1/26/2017			5.61		6.29		6.12	
3/22/2017	5.66		5.42					
5/1/2017	5.88							
5/2/2017			5.72		6.98		5.86	
8/3/2017	5.98 (D)		5.65 (D)		6.18 (D)		5.92 (D)	
1/23/2018	6.11 (D)		5.64 (D)		6.44 (D)		6.08 (D)	
6/19/2018			5.59					
6/20/2018	5.97							
6/25/2018					6.42		5.86	
9/25/2018								5.87
10/1/2018				5.55				
10/2/2018		5.86						
10/3/2018						6.33		

# Prediction Limit

Constituent: pH, Sulfate Analysis Run 1/24/2019 8:07 AM  
 Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-7	GWC-7	GWC-8	GWC-8	GWC-9	GWC-9	GWA-1	GWA-1
1/20/2016	6.23							
1/26/2016			5.99					
3/23/2016							0.5	
3/29/2016	6.42		6.45		5.86			
5/20/2016							0.5	
5/24/2016	6.38		6.17		5.81			
7/21/2016							0.5	
7/22/2016	6.438562							
7/25/2016					5.876175			
7/26/2016			6.291124					
9/15/2016	6.347438						0.5	
9/19/2016			6.550086		6.323668			
11/11/2016							0.5	
11/16/2016	6.35		5.96					
1/19/2017							0.5	
1/26/2017	6.45		6.14					
1/31/2017					5.75			
3/16/2017							0.5	
3/23/2017			5.95		5.97			
4/28/2017							0.5	
5/2/2017	6.32		6.11		6.11			
8/4/2017	6.35 (D)							
8/7/2017			6.02 (D)		5.78 (D)			
10/4/2017							0.5	
1/19/2018							0.5	
1/23/2018	6.55 (D)							
1/24/2018			5.91 (D)		5.98 (D)			
6/19/2018							0.5	
6/21/2018			5.9		5.68			
6/25/2018	6.26							
9/25/2018								0.5
9/26/2018				5.9		5.71		
10/2/2018		6.31						

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-2	GWA-2	GWA-28	GWA-28	GWA-29	GWA-29	GWA-3
3/22/2016			1.1423		8.4662		
3/23/2016	1.001						
3/31/2016							202.982
5/19/2016					10		
5/23/2016			1.44				
5/24/2016	0.576 (J)						
5/25/2016							95.7
7/21/2016					13		
7/25/2016			1.1				
7/26/2016	0.91 (J)						
7/27/2016							110
9/15/2016			0.99 (J)				
9/16/2016	0.87 (J)						
11/9/2016			1.1				
11/10/2016	0.79 (J)						
1/17/2017			0.85 (J)		7.6		
1/19/2017	0.87 (J)						
3/16/2017			1.2				
3/17/2017	1.8						
4/27/2017			<1		8		
4/28/2017	1.7						
7/18/2017					6		
8/1/2017					7.7		
10/3/2017	1.9		1.4		7		150
1/19/2018	1.8		1.1		5.7		
6/19/2018	1		0.94 (J)		7		
6/20/2018							100
9/25/2018		0.78 (J)		1.3		9.1	





# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-13	GWC-13	GWC-14	GWC-14	GWC-15	GWC-15	GWC-16	GWC-16
3/29/2016	2.8316							
3/30/2016			7.2023		1.7296		0.5274 (J)	
5/25/2016	2.62		10.5		1.52		0.453025 (J)	
7/26/2016	2.7		38		1.2			
7/27/2016							0.513725	
9/15/2016	2.6		13					
9/16/2016							0.49855	
9/20/2016					0.85 (J)			
11/17/2016	2.2		18		0.83 (J)		0.49855	
1/31/2017	2.6							
2/1/2017			8.2		1.9		0.484116666..	
3/23/2017	2.6		10		1.6			
3/24/2017							0.484116666..	
5/3/2017	2.6		10		1.3		0.513725	
10/4/2017			22		1.4			
10/5/2017	2.5						0.49855	
1/25/2018	2.5		9.9		1.4		0.49855	
6/20/2018	2.5		18		2.1		0.513725	
10/1/2018				11		1.4		0.49855
10/2/2018		2.7						

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-17	GWC-17	GWC-18	GWC-18	GWC-19	GWC-19	GWC-20	GWC-20
3/30/2016	0.7606 (J)		0.6011 (J)		2.3237		1.0356	
5/25/2016	0.2609 (J)							
5/26/2016			0.592 (J)		0.574 (J)		0.979 (J)	
7/25/2016			0.493991666..		<1		0.94 (J)	
7/27/2016	0.7659 (J)							
9/19/2016	0.539691666..		0.518491666..		<1			
9/20/2016							0.83 (J)	
11/17/2016	0.6647 (J)		0.518491666..		<1		0.71 (J)	
2/1/2017	0.429258333..		0.477191666..					
2/2/2017					8.6		0.82 (J)	
3/24/2017	0.429258333..		0.477191666..		2.5			
3/28/2017							0.75 (J)	
5/3/2017	0.565941666..		0.493991666..		0.88 (J)			
5/4/2017							1.1	
10/4/2017	0.539691666..							
10/5/2017			0.518491666..		0.81 (J)			
10/6/2017							0.79 (J)	
1/25/2018	0.414691666..		0.518491666..		0.77 (J)			
6/21/2018			0.493991666..		<1		1.3	
6/26/2018	0.565941666..							
9/27/2018						<1		1.2
9/28/2018				0.518491666..				
10/2/2018		0.539691666..						

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-21	GWC-21	GWC-22	GWC-22	GWC-23	GWC-23	GWC-24	GWC-24
3/29/2016					0.511475 (J)			
3/30/2016	0.3269 (J)						0.9043	
3/31/2016			0.4038 (J)					
5/25/2016					0.3908 (J)		0.6942 (J)	
5/26/2016	<1		0.5404 (J)					
7/26/2016	<1		0.4784					
7/27/2016					0.524866666..		0.513058333..	
9/16/2016							0.558333333..	
9/20/2016	<1		0.4939		0.491341666..			
11/17/2016	<1		0.4939					
11/18/2016					0.491341666..		0.558333333..	
2/2/2017	<1							
2/3/2017			0.538966666..		0.481275		0.385366666..	
3/28/2017	<1		0.538966666..		0.481275			
3/29/2017							0.385366666..	
5/3/2017			0.4784					
5/4/2017	<1				0.524866666..		0.513058333..	
10/5/2017			0.4939		0.491341666..		0.558333333..	
10/6/2017	<1							
1/25/2018			0.4939		0.491341666..		0.558333333..	
6/20/2018	<1		0.4784		0.524866666..			
6/27/2018							0.513058333..	
9/27/2018		<1						
9/28/2018								0.558333333..
10/1/2018				0.4939		0.491341666..		



# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-31	GWC-31	GWC-32	GWC-32	GWC-33	GWC-33	GWC-34	GWC-34
3/23/2016			12.8473		19.6956			
3/24/2016							1.8782	
3/30/2016	15.0114							
5/23/2016							1.44	
5/24/2016			13.5					
5/25/2016	19.1							
7/21/2016							1.6	
7/22/2016			12					
9/15/2016							1.6	
9/16/2016			12					
11/15/2016			13				1.3	
11/17/2016					22			
1/25/2017	13				50		1.5	
1/26/2017			9.2					
3/22/2017							1.5	
3/23/2017					28			
3/24/2017			9.2					
5/1/2017					25		1.4	
5/2/2017			9					
7/19/2017	15				22			
8/4/2017					25			
8/24/2017					19			
10/3/2017							1.4	
10/5/2017					18			
10/6/2017	19		8.8					
1/23/2018	15		9.4		14		1.2	
6/20/2018							1.7	
6/26/2018			12		9.2			
6/27/2018	14							
10/2/2018				9.7		11		1.4
10/3/2018		18						

# Prediction Limit

Constituent: Sulfate Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-35	GWC-35	GWC-5	GWC-5	GWC-6	GWC-6	GWC-7	GWC-7
3/24/2016	2.7482							
3/28/2016			19.9405		11.0351			
5/23/2016	2.76		21					
5/24/2016					12.8		85.8	
7/21/2016	2.8		17		16			
7/22/2016							86	
9/15/2016	2.4		16		15		84	
11/15/2016	2.3		15					
11/16/2016					15		89	
1/26/2017	2.7		13		16		85	
3/22/2017	2.4		13		13		81	
5/2/2017	2.5		25		10		76	
10/3/2017	2.5		21		11		74	
1/23/2018	2.4		26		10		57	
6/19/2018	2.7							
6/25/2018			30		11		62	
9/25/2018						14		
10/1/2018		2.8						
10/2/2018								60
10/3/2018				29				

# Prediction Limit

Constituent: Sulfate, Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-8	GWC-8	GWC-9	GWC-9	GWA-1	GWA-1	GWA-2	GWA-2
3/23/2016					<25		41	
3/29/2016	15.2958		14.6203					
5/20/2016					<25			
5/24/2016	18.5		14.7				51	
7/21/2016					14			
7/25/2016			20					
7/26/2016	19						8	
9/15/2016					12			
9/16/2016							40	
9/19/2016	31		22					
11/10/2016							58	
11/11/2016					4 (J)			
11/16/2016	36		22					
1/19/2017					<5		28	
1/26/2017	49							
1/31/2017			44					
3/16/2017					14			
3/17/2017							<5	
3/23/2017	21		29					
4/28/2017					<5		<5	
5/2/2017			18					
5/3/2017	17							
10/3/2017			17				36	
10/4/2017					34			
10/5/2017	16							
1/19/2018					<5		10	
1/24/2018	10		14					
6/19/2018					16		<5	
6/21/2018	11		13					
9/25/2018						24		32
9/26/2018		20		17				



# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWA-28	GWA-28	GWA-29	GWA-29	GWA-3	GWA-4	GWA-4
3/22/2016	69		92				
3/23/2016						139	
3/31/2016					401		
5/19/2016			99			175	
5/23/2016	92						
5/25/2016					150		
7/21/2016			100			170	
7/25/2016	38						
7/27/2016					250		
9/14/2016						150	
9/15/2016	64						
11/9/2016	80						
11/10/2016						180	
1/17/2017	54		66			130	
3/16/2017	40					180	
4/27/2017	84		92			160	
7/18/2017			84 (J)				
8/1/2017			60 (J)				
10/3/2017	70		46		410	140	
1/19/2018	36		4 (J)				
1/22/2018						140	
6/19/2018	70		66			160	
6/20/2018					230		
9/25/2018		36		80			130





# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-18	GWC-18	GWC-19	GWC-19	GWC-20	GWC-20	GWC-21	GWC-21
3/30/2016	84		69		88		42	
5/26/2016	80		75		65		42	
7/25/2016	54		44		80			
7/26/2016							48	
9/19/2016	96		74					
9/20/2016					84		56	
11/17/2016	42		34		84		34	
2/1/2017	66							
2/2/2017			96		100		36	
3/24/2017	88		82					
3/28/2017					82		48	
5/3/2017	64		42					
5/4/2017					88		22	
10/5/2017	50		50					
10/6/2017					120		70	
1/25/2018	70		60					
6/20/2018							36	
6/21/2018	84		76		78			
9/27/2018				62		110		56
9/28/2018		74						

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-22	GWC-22	GWC-23	GWC-23	GWC-24	GWC-24	GWC-25	GWC-25
3/28/2016							90	
3/29/2016			53					
3/30/2016					39			
3/31/2016	102							
5/25/2016			33		30			
5/26/2016	108						75	
7/26/2016	82							
7/27/2016			30		28		78	
9/16/2016					22			
9/19/2016							100	
9/20/2016	100		42					
11/15/2016							110	
11/17/2016	110							
11/18/2016			4 (J)		28			
1/24/2017							96	
2/3/2017	110		20		26			
3/23/2017							96	
3/28/2017	98		38					
3/29/2017					28			
5/2/2017							100	
5/3/2017	98							
5/4/2017			54		30			
10/5/2017	<5		26		12		86	
1/25/2018	98		32		20		100	
6/20/2018	94		54					
6/27/2018					24		60	
9/26/2018								60
9/28/2018						16		
10/1/2018		100		140				

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-26	GWC-26	GWC-27	GWC-27	GWC-30	GWC-30	GWC-31	GWC-31
3/23/2016			46		51			
3/24/2016	48							
3/30/2016							128	
5/20/2016					58			
5/24/2016			34					
5/25/2016	42						118	
7/21/2016					42			
7/26/2016	20		16					
9/19/2016	48		52					
9/20/2016					52			
11/11/2016			56					
11/14/2016	40				38			
1/19/2017	10							
1/20/2017			38					
1/24/2017					36			
1/25/2017							120	
3/16/2017	<5		32					
3/17/2017					48			
4/28/2017			46					
5/1/2017	10				10			
7/19/2017							100	
10/3/2017			12					
10/4/2017	60				74			
10/6/2017							120	
1/19/2018			<5					
1/22/2018	40							
1/23/2018							70	
1/24/2018					10			
6/21/2018					28			
6/27/2018	8		54				92	
9/27/2018		86		58				
10/3/2018						42		86

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-32	GWC-32	GWC-33	GWC-33	GWC-34	GWC-34	GWC-35	GWC-35
3/23/2016	75		80					
3/24/2016					55		33	
5/23/2016					61		48	
5/24/2016	83							
7/21/2016					32		36	
7/22/2016	76							
9/15/2016					62		38	
9/16/2016	84							
11/15/2016	94				56		44	
11/17/2016			140					
1/25/2017			160		<5			
1/26/2017	68						<5	
3/22/2017					58		34	
3/23/2017			120					
3/24/2017	110							
5/1/2017			72		22			
5/2/2017	76						4 (J)	
7/19/2017			120					
8/4/2017			90					
8/24/2017			82					
10/3/2017					16		26	
10/5/2017			74					
10/6/2017	130							
1/23/2018	110		100		64		56	
6/19/2018							28	
6/20/2018					<5			
6/26/2018	66		100					
10/1/2018								40
10/2/2018		100		120		98		

# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

	GWC-5	GWC-5	GWC-6	GWC-6	GWC-7	GWC-7	GWC-8	GWC-8
3/28/2016	172		92					
3/29/2016					517		172	
5/23/2016	189							
5/24/2016			115		494		196	
7/21/2016	170		120					
7/22/2016					430			
7/26/2016							160	
9/15/2016	180		130		460			
9/19/2016							220	
11/15/2016	180							
11/16/2016			150		500		240	
1/26/2017	120		74		440		130	
3/22/2017	110		120		440			
3/23/2017							190	
5/2/2017	140		82		420			
5/3/2017							160	
10/3/2017	170		100		450			
10/5/2017							200	
1/23/2018	210		120		390			
1/24/2018							94	
6/21/2018							210	
6/25/2018	200		110		400			
9/25/2018				120				
9/26/2018								180
10/2/2018						440		
10/3/2018		230						



# Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/24/2019 8:07 AM

Plant Wansley Client: Southern Company Data: Wansley Landfill

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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	
1/24/2018	160	
6/21/2018	150	
9/26/2018		130



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